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The American University in Cairo

School of Global Affairs and Public Policy

**SOCIAL MEDIA POTENTIALS IN SUPPORTING WOMEN
ENTREPRENEURSHIP: THE CASE OF EGYPT**

A Thesis Submitted to the

Public Policy and Administration Department

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

By

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Supervised by:

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School of Global Affairs and Public Policy

Fall 20

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The American University in Cairo
School of Global Affairs and Public Policy
Department of Public Policy and Administration

“SOCIAL MEDIA POTENTIALS IN SUPPORTING WOMEN
ENTREPRENEURSHIP: THE CASE OF EGYPT”
Gehan Ahmed Aboutaleb

Supervised by Dr. Ghada Barsoum

ABSTRACT

The number of women entrepreneurs in Egypt starting and running their business online has been remarkably rising in recent years. Thanks to social media’s ability to harness some of the obstacles women business-owned enterprises encounter, it has become an essential platform for providing women with entrepreneurial opportunities and facilitating their own business. Social media is becoming more of an indispensable instrument for the businesses’ survival, especially in light of the implications posed by the recent outbreak of global pandemic COVID-19 in terms of movement restrictions and social distancing measures. However, a dearth in the literature on the impact of social media on entrepreneurship still exists, especially from a gender perspective. The aim of this study is, as such, to explore the extent to which these means could support creating entrepreneurial opportunities for women entrepreneurs in Egypt. The study used a quantitative approach by analyzing data collected from a sample of 96 women entrepreneurs operating online through conducting Exploratory Factor Analysis (EFA), reliability, and regression tests. This research's main findings illustrate that social media proved to be an instrumental tool for creating an enabling environment for women entrepreneurs, whereby they can run their business while achieving their work-family life balance. It was also recognized as an affordable and technically accessible medium to develop, improve, and promote women's business services and products.

Keywords: women entrepreneurs, entrepreneurship, social media, self-efficacy, social capital, empowerment, digital financial solutions, technology, marketing, social capital, networking.

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Acronyms

APS	Adult Population Survey
CAPMAS	Central Agency for Public Mobilization and Statistics
ELMPS	Egypt Labor Market Panel Survey
ICTs	Information and Communication Technologies
ILO	International Labor Organization
ITU-D	The Telecommunication Development Sector
MSEs	Micro and small enterprises
SDGs	Sustainable Development's Agenda 2030
SM	Social Media
SMEs	Small-Medium Sized Enterprises
SNWs	Social Networking Websites
STEM	Science, technology, engineering, and mathematics
TAM	Technology Acceptance Model
UGT	Uses and Gratifications Approach
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNCTAD	United Nations Conference on Trade and Development
WE	Women's Empowerment
WEE	Women Economic Empowerment

I. Introduction

UN Women defined Women's Economic Empowerment (WEE) as “the ability of women to bring about positive changes in their lives and societies due to their participation in economic activities” (UN Women, 2014, p.1). WEE is fundamental to realizing women’s rights and gender equality. The activities underlying this definition to WEE include amongst which women’s ability to participate equally with men in labor and product markets, access assets and resources, and influence the governance and institutional structures that guide the relationship between the market and the state (UN Women, 2014; UN Women Egypt, 2018).

In that sense, WEE is considered one of the essential factors for the full, effective, and accelerated implementation of the Sustainable Development Agenda 2030 (SDGs), specifically SDG 5 to achieve gender equality and SDG 8 to promote decent work for all (UN Women, 2015). WEE could further contribute to achieving other developmental goals, including poverty reduction, reducing inequalities, economic growth, and the improvement of social well-being (Golla et al., 2011).

Despite such benefits, women continue to face gender-based discrimination in their access to economic opportunities. Both supply and demand-side barriers limit women’s economic participation. For instance, laws protecting women in labor space, such as entitlement to three-month paid maternity leave and childcare provisions, are often considered by employers as disincentives to employing women due to associated costs. Other significant constraints to women’s labor market participation include limited access to safe public

transportation and increased violence incidences against them in work and public spaces (Klugman & Tyson, 2016).

Furthermore, social and legal norms, such as concerning legal capacity or property rights and the difficulties women face in managing work-life balance because of household and family responsibilities, hinder their ability to participate in the economy and engage in equal footing with men in paid work (Barsoum, 2019). Those constraining factors contribute to positioning women in low-skilled and low-paid jobs while also leading to discrepancies in women's access to services, education, training, work experience, and limited career advancement opportunities.

Creating employment opportunities for women in Egypt is becoming a more pressing issue than ever. Egypt is witnessing high unemployment rates among women and higher gender disparities in labor participation and job rates. Egypt lags in terms of women's economic empowerment, ranking 140th of 153 countries compared to 108 in 2006 as per the latest Global Gender Gap Report for 2020. The report also noted that 20% of the 25% of women in the workplace are on part-time job contracts (Schwab et al., 2019).

In addition to the low activity rate, according to CAPMAS data for 2018, almost a fourth of active women aged 15 to 64 are unemployed (21.4 percent compared to 6.8 percent of men). Unemployment is exceptionally high among women holding university degrees or above - 58 percent of the total unemployed women compared to 37 percent of the total

unemployed men (CAPMAS 2019). Women employed in a managerial position is also extremely low, only at 7.1 percent (Bosma et al., 2020).

Women's entrepreneurship development is perceived as one of the critical factors under WEE that could contribute to better employment outcomes for women and closing the gender gap in the labor market. Despite efforts of policymakers and private institutions to support Egypt's entrepreneurship ecosystem, most entrepreneurs initiating a business in Egypt still perceive starting a business as a challenging undertaking (Bosma et al., 2020).

Although Micro, Small, and Medium-Sized Enterprises (MSMEs) play a key role in creating jobs in both the formal and informal sectors, they are precarious in Egypt. The number of micro-enterprises -that is employing less than ten workers- according to the latest CAPMAS census was 3.8 million versus 67,600 small and micro enterprises (OECD et al., 2018). Ayadi et al., (2017) noted in their study the various structural constraints these enterprises suffer from, including amongst which lack of managerial skills and financial resources, encountering intensive competition, and low-profit margins. However, they suggested that given the labor intensity of these firms, they could contribute to absorbing a sizable number of unemployed women and youth.

According to the latest data available on women entrepreneurship in Egypt, the 'Female to Male Total Early-Stage Entrepreneurial Activity Rate' stood at 0.44 percent -that is, for every woman entrepreneur, there are more than two men (Bosma et al., 2020). The percentage of women business owners to formally established businesses stood at only 2.1

percent compared to 9.1 percent for men placing Egypt amongst the lowest rate countries in 2018 (Ismail et al., 2018). Most of these businesses are micro-enterprises characterized by low capitalization, relatively less probability of employing other workers, and only generating subsistence-level income (Rizk et al., 2019).

The rapid development and expansion in internet technology, including social media platforms (SM), have opened the doors of opportunity in countless ways. It is changing how businesses are conducted and has been proven to significantly impact achieving success to businesses incorporating them (Jones et al., 2015). By introducing digital solutions, such as social media, e-commerce, delivery apps, and digital payments, individuals can interact virtually and expand their access to stakeholders and capital opportunities. They also get the opportunity to strengthen their skills (Theis & Rusconi, 2019).

The rising role of social media is evidenced by the growth in using Social Networking Websites (SNWs) such as WhatsApp and Facebook (Steenkamp & Hyde-Clarke, 2014; Thesis & Rusconi, 2019). These digital solutions are becoming indispensable tools for all businesses and promote new entrepreneurial ideas (Turan & Kara, 2018; Henderson et al., 2010). They are considered of great importance, especially to the small and micro-sized businesses deprived of primary resources to operate in the marketplace (Jones et al., 2015).

For women, digital platforms are one of the critical determinants of their economic empowerment by contributing to forming many entrepreneurial opportunities. The UN

High-Level Panel on Women’s Economic Empowerment in their 2016 report recognized the multiple benefits of digital platforms to women entrepreneurship stating that it could result in “leveling the playing field for women by reducing the importance of traditional relationships for accessing both suppliers and customers” (Klugman & Tyson, 2016, p.70). The report also emphasized the importance of digital platforms providing women with training opportunities and facilitating collective action (Klugman & Tyson, 2016).

However, despite the massive rise in using these digital platforms, including social media in contemporary economics, research on the interrelation between them and entrepreneurship has been minimal. Moreover, there is no sufficient research about the entrepreneurial benefits and challenges of these solutions to women-owned businesses or their role in unlocking women’s business success (Ukpere et al., 2014).

A. Problem Statement

Social media (SM) is becoming an indispensable tool of social lives, from users “following” numerous pages on different social media outlets to consumers “liking” and reviewing their favorite products and services providers. While many individuals utilize them for personal use, many have harnessed these tools to translate passion and hobbies into income-generating projects.

It is transforming how businesses are being performed and is envisaged to have a potential role in creating social networking and capital opportunities for women. Through the usage of social media, women could access available resources and exchange knowledge and information among different stakeholders (Nieto & González-Álvarez, 2016), which could

further contribute to empowering women (Beninger et al., 2016) and as such enhancing the economic growth of developing countries (Hossain & Rahman, 2018; Ahmad & Rasul, 2019).

However, breaking the glass ceiling and unleashing women entrepreneurs' potential via SM has not been extensively researched. The majority of studies examining businesses and digital solutions pay more attention to SMEs, neglecting the micro-sized enterprises and informal economies where women are concentrated the most (Crittenden & Bliton, 2019). This is of particular importance to Egypt, where women entrepreneurs are concentrated the most in the informal sector and constitute a marginal proportion of all formal enterprises. Many of these women cannot access the various digital solutions available due to their limited or lack of knowledge of its benefits (Al Shorbagi et al., 2017).

The research mainstream on challenges to female entrepreneurship focused on providing evidence to women's exclusion from networks and other resources without referring to digital technologies' role as a solution (Pergelova et al., 2019). Digital technologies could assist women entrepreneurs in overcoming the limitations they face in business by enabling them to get a hand on necessary knowledge and resources while achieving work-life balance (Rosenbaum, 2017).

To that end, the thesis main objective is to understand the extent to which digital solutions, primarily social media, can be an instrument for creating and expanding women entrepreneurial opportunities in a timely and relevant manner focusing on Egypt's case.

B. Research Questions

This study aims to address the main research questions:

To what extent does social media facilitate, or constraint the process of entrepreneurial opportunity for women?

Investigative questions include:

- 1) What are these women businesses' mutual characteristics dependent on social media in starting or running their business?
- 2) What factors influence women entrepreneurs' intentions to employ social media in their entrepreneurial endeavors? To what extent could this make them overcome the constraints they face in the offline environment?

C. Significance of the Study

This study investigates from a gender lens the relation between social media platforms and enhancing women entrepreneurial opportunities. It delves into investigating how the social media features including amongst which technological adaptability, information accessibility, cost-effectiveness, and establishing social networks could contribute to supporting women in initiating and running their businesses.

It contributes to studies that explored how women perceive social media as a contributor to overcoming the deep-rooted constraints that stand against achieving their full entrepreneurial potential, for instance, inhabiting social norms and traditions, low access

to capital, restricted mobility, limitations to accessing inheritance and assets, and achieving work-life balance (Thesis & Rusconi, 2019).

The results of this study could support in better understanding the motivations behind women initiating or operating the business through social media, and as such, support putting in place the necessary policies and mechanisms for recognizing these online women-led businesses and transforming them into formal enterprises that could result in spurring inclusive economic growth.

D. Adopted Definitions

- **Micro enterprises:** according to the decree issued by the Central Bank of Egypt (CBE) in December 2015, micro-enterprises are firms that employ less than ten employees with no more than 50,000 Egyptian pounds newly established turnover. While small and medium enterprises employ from 10 to 200 hundred employees with no more than 5 million Egyptian pounds newly establish turnover of, and large above that threshold.
- **Entrepreneurial process:** Martinez & Aldrich (2011) defined it into three stages “opportunity development, technology, and organizational creation, and exchange” (p.9).
- **Women’s Empowerment:** the definition adopted by Kabeer (1999) “the expansion of people’s ability to make strategic life choices¹ in a context where this ability was previously denied to them” (p.437).

¹ Kabeer (2005) later detailed “strategic life choices” as including “where to live, whether and whom to marry, whether to have children, freedom of movement and association”.

- **Social media:** definition adopted by Kaplan & Haenlein (2010) as “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user generated content” (p.61).
- **Social Networking Websites (SNWs):** defined by Kuss & Griffiths (2011) as “virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests.
- **Social Capital:** stated by Bourdieu & Wacquant (1992) as “the sum of resources, actual or virtual, that accrue to an individual or a group under possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition”.
- **Entrepreneurial Social Network:** defined as “entrepreneur’s relationships and contacts with other people. These contacts provide means of recognizing opportunities and facility in the use of resources, which are potential sources of comparative advantage (Teixeira et al., 2018).

II. Background: Labor Market Trends and Digital Statistics for Egypt

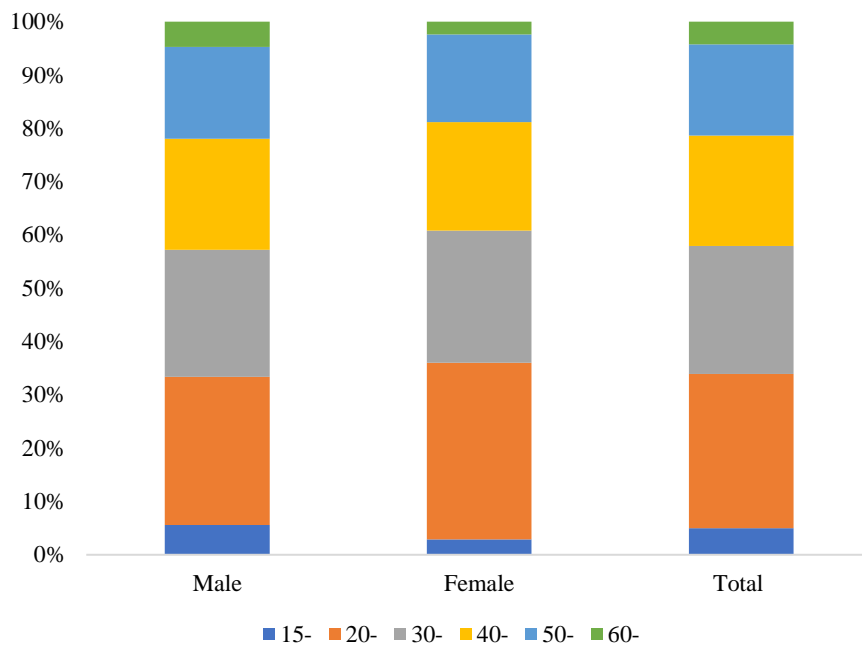
This chapter analyzes the key trends and gender gaps in Egypt's labor market and entrepreneurship scene. It also discusses trends in the access and affordability to means of Information and Communication Technologies (ICTs) disaggregated by sex to the extent possible while shedding light on the potential benefits and challenges of these means to women's economic participation.

A. Status of Women Labor and Employment Trends

The International Labor Organization (ILO) defines the labor force as “the sum of the employed and unemployed individuals” (ILO, 2017). During the last decade, according to the latest statistics posted by the Central Agency for Public Mobilization and Statistics (CAPMAS), the labor force for Egypt increased from 25.3 to 28.9 million between 2009 and 2018 (CAPMAS, 2019). The number of males went up from 19.4 to 22.9 million, while the total female labor force (only 20.8 percent of the labor force for Egypt) almost stayed the same (increased from 5.9 to 6 million) (CAPMAS, 2020). The female labor force participation rate stood at 18.3 percent compared to 67.6 percent for males ranking Egypt amongst the lowest female participation rates worldwide (143rd out of 153 countries) in line with the Global Gender Gap Index Report for 2020 (Schwab et al., 2019).

In terms of the distribution of labor force by age, figure 1 illustrates that in general, 58 percent of the total labor force are under 30 years old, with the percentage within females higher than that of males (61% versus 57%) (CAPMAS 2019).

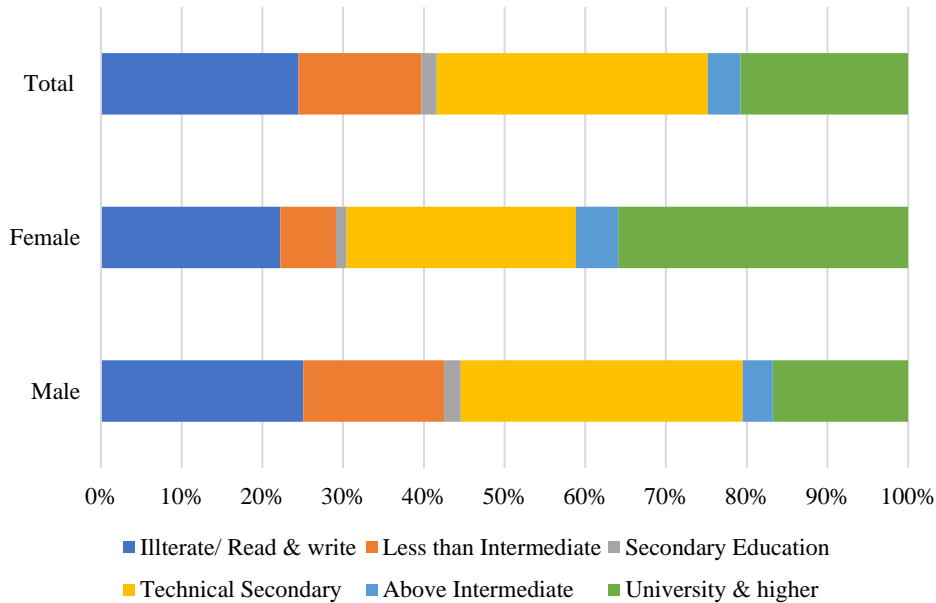
Figure 1 Labor Force disaggregated by sex and age for Egypt, 2018 (%)



Source: Reproduced based on data from the CAPMAS Annual Bulletin of Labor Force Survey (2019)

When it comes to educational attainment, Figure 2 shows that females have higher educational levels than males (36% of the females have a university or above degree, while for males, the majority (35%) have technical secondary education.

Figure 2 Labor force by educational status and sex for Egypt, 2018 (%)



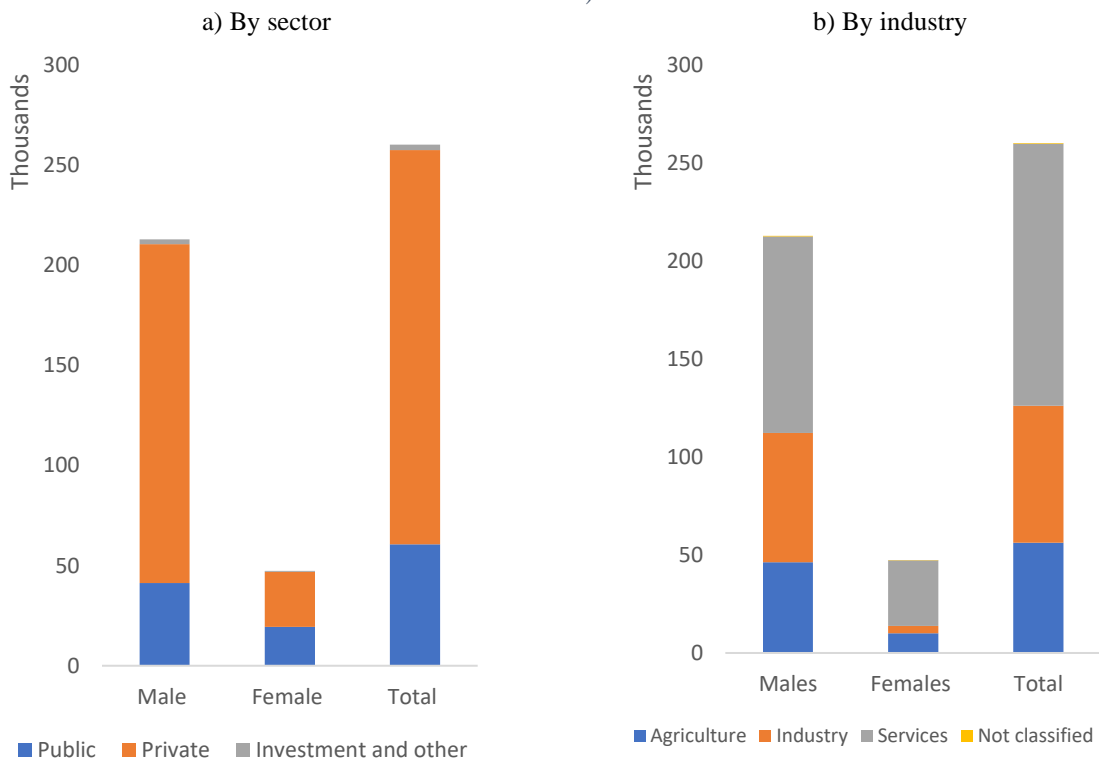
Source: Reproduced based on data from the CAPMAS Annual Bulletin of Labor Force Survey (2019)

Although these trends indicate that women in the Egyptian labor market tend to be younger and have better educational attainment levels than males, this has not been fully translated to increased access to quality jobs. Overall, the total number of employed increased from approximately 23 to 26 million between 2009 and 2018, which is approximately 1 percent increase annually, with employed males increasing by 1.6 percent on average annually, while females were growing barely 0.3 percent.

The employment to population ratios is highest for age categories of (30-39) and (40-49) for males, while for females, it is more prevailing across the age categories of (40-49) and (50-59). In terms of educational attainment, the highest emp-to pop ratios are amongst the above intermediate and lower than a university-level degree for both males and females (74.8% for males and 33.5% for females).

In terms of distribution of employed by sector, Figure 3 shows that 76 percent of the total employed are concentrated in the private sector (45.2% in the private outside establishments and 30.5% in the private inside establishments). However, the distributions vary when sex is considered, with 41 percent of women employed in the public and governmental sector compared to 19 percent of males and 57.9 percent of the females in the private sector versus 79.5 percent of the males.

Figure 3 Number of employed persons (15+) by industry (ISIC4) and sex for Egypt, 2018 (in thousands)



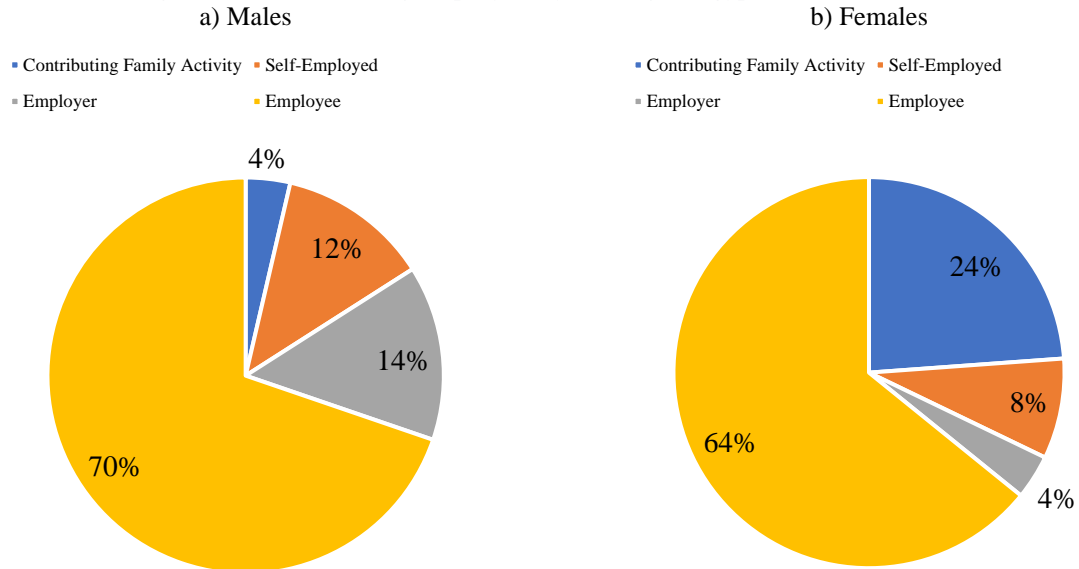
Source: Reproduced based on data from the CAPMAS Annual Bulletin of Labor Force Survey (2019)

With respect to the distribution of employed by industry, it could be observed that the services sector absorbs the vast majority of women, 71 percent versus 47 percent of males. This sector is mainly constituted of retail trades characterized by being a limited-sized sector in Egypt (on average, employing only 1.9 employees) (World Bank, 2014). Most micro-enterprises operating in this sector are primarily part of the informal sector (World

Bank, 2014). El-Laithy, 2001 proposes that these trends were due to a reduction in public sector employment opportunities. Barsoum (2019) focusing on young married and unmarried educated women in Egypt emphasized through qualitative analysis that discouraging working environment (longer working hours, lower salaries, unsustainable working conditions, among others) is the main reason behind forcing women not to join the labor market. Her study also showed that balancing work family life and time deprivations are additional barriers married educated women face.

With respect to the distribution of employed by status, the data derived from CAPMAS 2019 bulletin shows that the majority of both males and females are waged employees (70% and 64% respectively). However, the proportion of females contributing to family work to total females employed is six times that for men (24% versus 4%). While the female self-employed and employers' proportions to total employed is far less that that for men.

Figure 4 Distribution of employed by status for Egypt, 2018 (%)



Source: Reproduced based on data from the CAPMAS Annual Bulletin of Labor Force Survey (2019)

In addition to low female labor participation and employment rates, women are also more likely to be unemployed compared to men. Egypt recorded an overall unemployment rate of 9.9 percent in 2018 (a decline of 1.9% compared to 2017), the female unemployment rate stood at 21.4 percent compared to 6.8 percent of males (CAPMAS, 2019). Females holding university degrees constituted 58 percent of the unemployed compared to 38 percent of the males (CAPMAS, 2019). The unemployment rate for young women aging between 20 to 29 based on data by CAPMAS same year was 47.3 percent versus 16.3 percent for males.

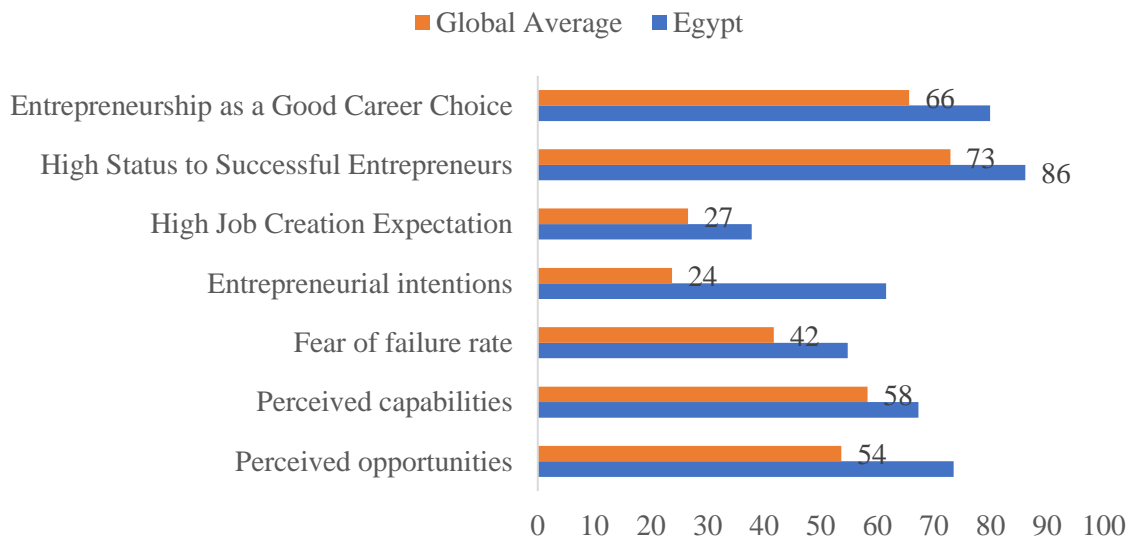
The 2018 World Bank Study on Women Economic Empowerment explained that the underlying reasons behind younger women drifting away from the labor market could be due to getting married or out of pregnancy or due to women becoming discouraged workers who stopped looking for a job and as such are considered out of the labor force (Zeitoun, 2018).

B. Women Entrepreneurship Profile

Entrepreneurship could potentially absorb the inactive female population in Egypt. According to the Global GEM Report for 2019/20, the overall proportion of individuals aging 18-64 who “perceives good opportunities” to establish an enterprise has increased significantly between 2018 and 2019, reaching around 73.5 percent compared to 39.3 percent in 2018 (Ranking Egypt the 7th amongst 50 other countries under the study) (Bosma et al., 2020).

The ‘Total Early-Stage Entrepreneurial Activity Rate’ (TEA)², however, dropped to 6.67 percent in 2019 compared to 9.8 percent in 2018. The low TEA rate might be attributed to the increasing ‘fear of failure’ that almost doubled between 2018 and 2019 (54.8%). The low rate of established business ownership³ is similarly concerning , where Egypt's rate is merely 1.5 percent (Bosma et al., 2020).

Figure 5 GEM Selected Indicators for Egypt, 2019 (%)



Source: reproduced based on data from GEM Report 2019/20

These trends reflect on the TEA rates disaggregated by sex. According to the GEM Egypt National Report for 2017/2018 the female TEA stood at 7.5 percent compared to 18.8 percent for men (Ismail et al., 2018). The Global GEM Report further states decline in these rates to almost half, where TEA for the female was estimated at 4.1 percent, and for

² According to GEM Total Early- Stage Entrepreneurial Activity Rate is defined as “the percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business”.

³ According to Faghih & Zali (2018) established business ownership are “those who are currently owner-managers of established business”.

males 9.2 percent, that is for every one woman entrepreneur, there are more than two male counterparts (Bosma et al., 2020).

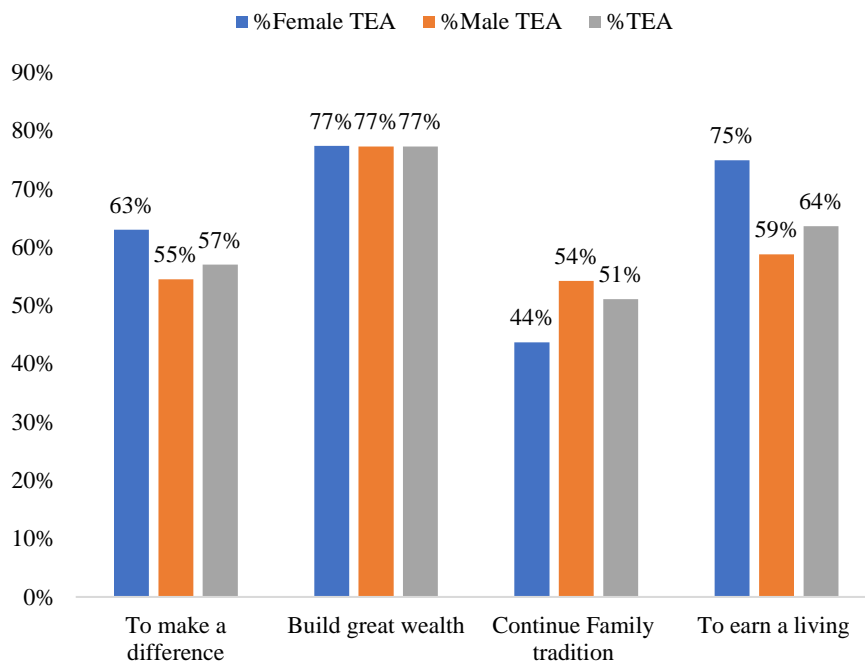
Although the disparities between males and females diminish when it comes to the perception of opportunity (Female/Male Opportunity-Driven TEA Ratio⁴ amounted to 0.93), established business ownership (0.8% for females and 2.1% for males). The study by Rizk et al. (2019), analyzing data from the 2018 Egypt Labor Market Panel Survey (ELMPS), reported that most of the enterprises owned and managed by women are more prevalent in wholesale and retail activities that tend to be limited in size (employing no more than 10 employees) and generated limited profit. They have also emphasized the gap between women and male enterprise owners in education, where women tended to be more illiterate, and men tended to be among university-educated individuals.

The GEM report illustrates how women differ from men in their attitudes and aspirations towards entrepreneurship. Respondents to the Adult Population Survey (APS) were requested to evaluate the four main factors behind initiating business “make a difference in the world, build great wealth or very high income, continue a family tradition, and earn a living because jobs are scarce” (Bosma et al., 2020). The results of the survey, as reported by the GEM report, indicates that, in general, in almost three-quarters of the economies under the study, women were seen more inclined towards motives such as “to make a

⁴ “Female/Male Opportunity-Driven TEA Ratio” is defined by GEM metadata as “Percentage of those females involved in TEA who (i) claim to be driven by opportunity as opposed to finding no other option for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income, divided by the equivalent percentage for their male counterparts”.

difference in the world” and “to earn a living because jobs are scarce” compared to men (Bosma et al., 2020). Figure 6 below shows Egypt's case, where overall, women believe more in making a difference and earning a living than men and equally believe in building wealth but less inclined to continuing family business.

Figure 6 GEM Motivational Index for Egypt by sex, 2019 (%)



Source: reproduced based on data from GEM Report 2019/20

The study by the World Bank 2018 on women empowerment also examined the main motivations behind Egyptian women participation in the labor market via conducting 18 focus group discussions (FGD) between January and February 2018 for women between the age of 18 to 29 (Zeitoun, 2018). Key results reported from these discussions were the following:

- Single unemployed females reported that despite the challenges they encountered, they considered self-employment a viable option compared to married women whose husbands opposed their work.

- Those who operate their projects from home perceived their business as "short-term simple activities" encompassing the sale of clothing and cosmetics and the production and sale of home-made food and simple handicrafts.
- Women participants highlighted the main reasons behind the "short-term nature" of these businesses or their discontinuation into 5 main categories 1) difficulty in marketing their goods and services, 2) transportation, 3) the relatively high costs of inputs, 4) risk of failure, and 5) balancing work and family lives (Zeitoun, 2018).

Beninger et al. (2016) argues that these trends in women entrepreneurship are possibly a result of existing cultural norms and traditions that may resist women's employment. The ILO assessment also added factors such as lack of experience and training, constraints to accessing financial and non-financial services, business, inability to access the necessary information, and establishing networks and business relations as standing against women achieving their entrepreneurial potential.

Nevertheless, the Egyptian entrepreneurship scene is yet promising. Most of the highlighted constraints have received increased attention from various stakeholders ranging from policymakers to private sectors and Non-Governmental Organizations (NGOs).

The National Strategy for Women Empowerment in Egypt 2030 underscores the importance of women empowerment politically, economically, and socially. The economic empowerment pillar of the strategy calls for strengthening women's capacities so as to

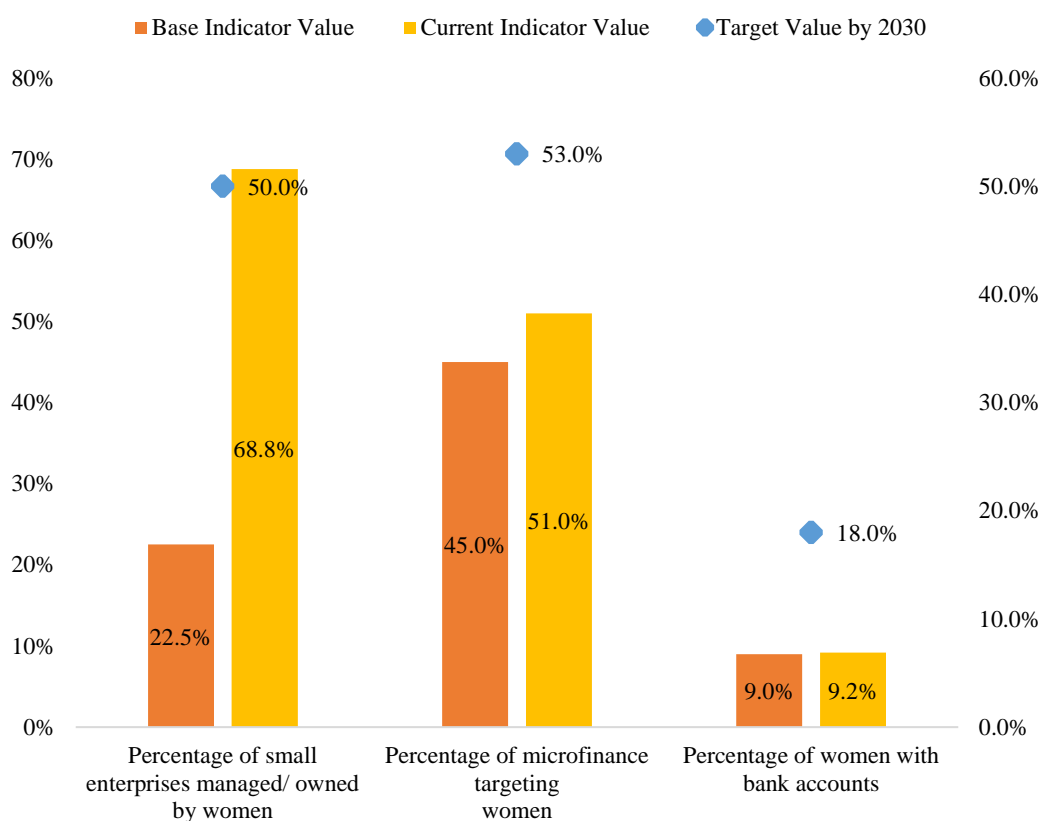
promote their employment and entrepreneurship options including holding high-level positions in both public and private sector” (UN Women Egypt, 2018).

Within the framework, the Government of Egypt has been placing great attention to women economic empowerment and boosting women entrepreneurship through different channels, including by providing credit facilities, conducting several awareness-raising campaigns and capacity building programs targeting women in various governorates across Egypt (Ministry of Planning and Economic Development, 2018).

Additionally, private sector companies and NGOs have been launching several women economic empowerment initiatives. For instance, the Social Innovation Hub under Microsoft project “Aspire Woman”, which seeks to unlock young women leaders’ potential via soft and business skills training. This initiative managed to reach almost 60,000 Egyptian youth since it started in 2014 and secured more than 2,000 jobs for women (Ministry of Planning and Economic Development, 2018).

The following figure depicts the leading women entrepreneurship indicators listed in the National Women’s Empowerment Strategy to evaluate the progress achieved thus far under the women's economic empowerment pillar. It could be observed that Egypt overachieved the percentage target for women-owned and managed small enterprises by over 15% and almost close to the target of 53% for microfinancing targeting women. However, the percentage of women with bank accounts is still short, recording only 9%.

Figure 7 Base, Actual, and Target indicators of women entrepreneurship under Egypt Strategy, (2015 and 2018) (%)



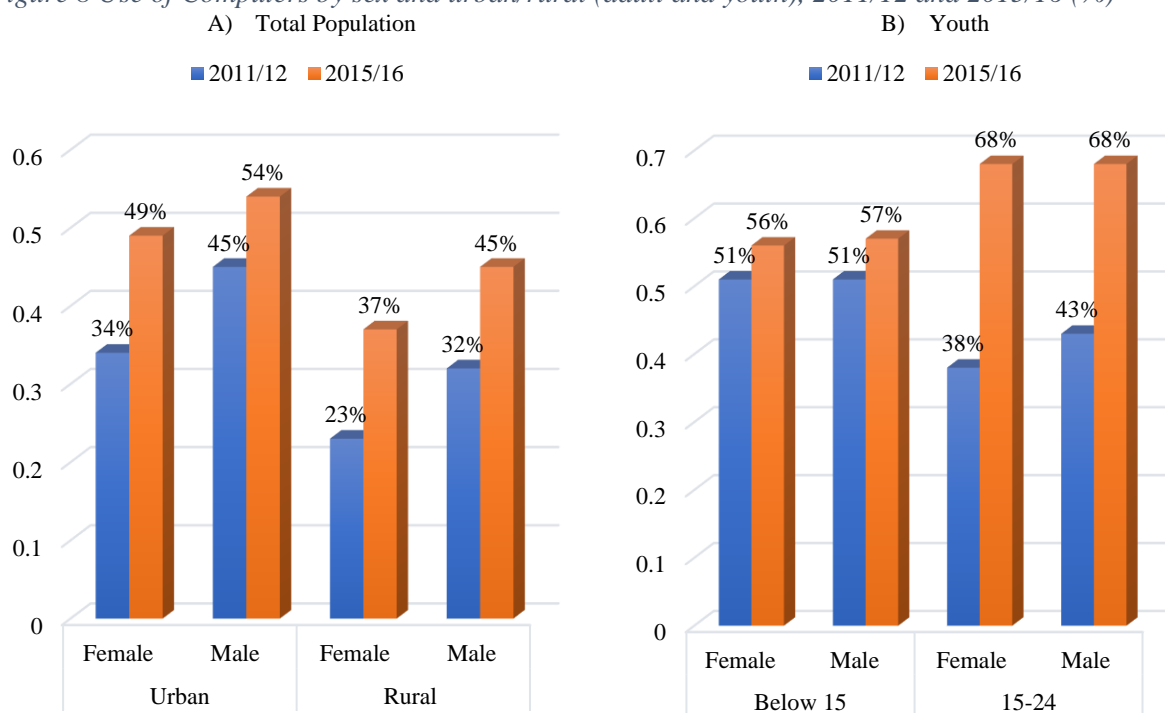
Source: data derived from the National Strategy of Women Empowerment, 2030 and Women's empowerment factsheet by the Egyptian National Council of Women (June-2014-May 2020)

C. Digital Statistics

1. Access to technology and social media

The wide use of social media is reinforced by the expansion of internet access and rise of the number of mobile and computers users. **Error! Reference source not found.** features trends in computer use based on data from national surveys conducted in 2012 and 2016. It could be observed that there has been a decline in the gender digital divide in rural and urban areas where closing the digital gender gap was faster in urban areas. For youth, the gap is even non-existent among males and females below 15 (Zeitoun, 2018).

Figure 8 Use of Computers by sex and urban/rural (adult and youth), 2011/12 and 2015/16 (%)



Source: reproduced based on data of CAMPAS (2016)

Similar trends exist among internet users; according to the Telecommunication Development Sector (ITU-D) latest available data, the proportion of individuals using the internet is 49 percent, where the percentage for males is 52.4 percent and for female's 49 percent. Overall, the total number of internet users in Egypt almost doubled from 29.4 million internet users in 2013 to 48.5 million in 2019-20 (penetration rates increasing from 22% to 55.7%).⁵⁶ According to the latest Global SDGs report 2020 data for Egypt, the percentage of individuals with a mobile phone has almost reached parity (females 97% and males 99%).

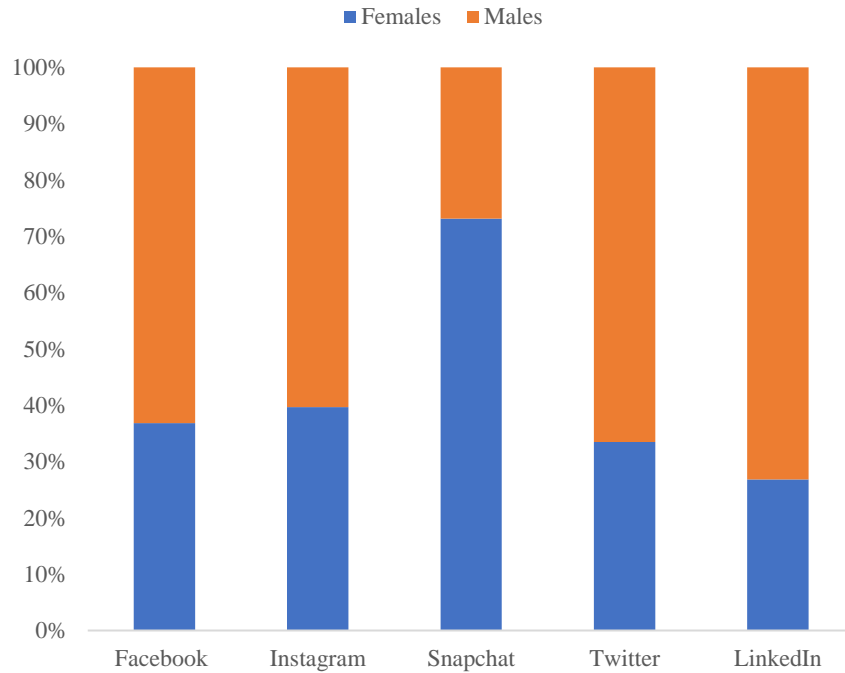
⁵ ICT Indicators in Brief- September 2020, <https://mcit.gov.eg/Upcont/Documents/19112020000 ICT Indicators in Brief September 2020.pdf>

⁶ ICT Indicators Annual Report 2014-2018, <http://www.mcit.gov.eg/Upcont/Documents/Publications 1752020000 ICT Indicators Annual Report 2014 2018.pdf>

Internet users in Egypt are becoming more active on social media platforms. As of January 2020, around 42 million (penetration rate up to 41%) are using SM platforms spending on average 2 hours 57 minutes daily using these platforms (Hootsuite 2020). Most of the social media users are concentrated in the age category from 18-34 (24% of the females and 39% of the males using social media) (Hootsuite 2020). This indicates the importance of this means in communicating with the young generation.

The most used social networking website by Egyptians is Facebook; the total number of individuals using it is up to 38 million, where 37 percent of females access and use Facebook versus 63 percent of males. Instagram comes in second place with 11 million individuals in Egypt using it, where 43 percent of the females have accounts on Instagram versus 66 percent of males (Hootsuite, 2020). In general, the proportion of males using social media supersedes women except for snapchat.

Figure 9 Top social media platforms, 2020 (in millions)



Source: Hootsuite data for Egypt, 2020

Measuring the extent to which women entrepreneurs incorporate ICTs in their business, the ILO Women's Entrepreneurship Development Assessment for 2016 detailed six primary conditions to examine Egypt's female entrepreneurship scene including access to technology by women-owned enterprises (WOEs). According to the assessment, Egypt scored only 2 out of 5 under this condition. The study justified the low score in access to technology primarily due to the absence of knowledge and unawareness of the benefits of ICTs in running the business activities. In addition, the assessment showed through the focus groups conducted that women with higher education tend to use it more compared to women with lower education levels (Al Shorbaji et al., 2017).

2. The E-commerce potential in Egypt

The Egyptian e-commerce market is still in its infancy, it is projected that this sector will steadily grow. Several factors could contribute to growing this sector's potential, including

the expanding customer base due to the largely growing population and the increasingly growing internet penetration levels. Furthermore, with the outbreak and spread of COVID-19 and its measures in terms of movement restrictions, consumer behavior has been changing significantly towards more using e-shopping.

According to recent research by Hootsuite (2020) on Egypt, around 81 percent of internet users aged 16 to 64 years have searched for a product or service to purchase, 70 percent of this population have visited an online page for a retail store and 51 percent have purchased either a product or used a service online. Considering the implications of the COVID-19 pandemic, a recently published report by Mastercard indicated that 72 percent (that is three out of four) of the consumers in Egypt have been shopping more online where the most purchased products fell under fashion, electronics, groceries, and healthcare categories.⁷

The Egyptian Government has been paying particular attention and undertaking multiple initiatives to boost the ICT sector, including e-commerce. In collaboration with UNCTAD, Egypt developed the ICT strategy with the objective of raising the share of e-commerce to GDP to 2.32% and doubling the number of outlets selling online (currently about 14,725).⁸ The strategy further calls for establishing e-commerce networks targeting specifically women and youth micro-entrepreneurs and tailoring specialized training for these target groups (UNCTAD, 2017).

⁷ [Mastercard Press Release](#)

⁸ [Societe General Bank webpage](#)

Compared to other countries, Egypt has yet to refine its Business to Consumer (B2C) e-commerce position that is the economy's preparedness to support online shopping. It ranked 102 out of 152 countries according to B2C E-Commerce Index published by UNCTAD in 2019. The Ministry of ICTs reported that e-commerce sales from (B2C) in the same year increased by 22%, reaching US\$ 5 billion (UNCTAD, 2017). However, in terms of the number of businesses selling online, Société Générale reported that only 17% of large firms and 3% of SMEs sold products online.⁹

The promising trends in the government's internet industry and efforts to boost e-commerce imply that the industry will be growing at a higher pace during the next few years (Al Hadad & Al Ghawas, 2020). This could further support creating a more enabling environment for women entrepreneurship with access to ICTs foreseen as an essential tool for starting, running, and growing their business.

⁹ UNCTAD (2018)

https://unctad.org/meetings/en/Presentation/dtl_eWeek2018p57_ShamikaSirimanne_en.pdf

III. Literature Review

This chapter reviews the literature and academic publications in the last two decades dealing with entrepreneurship and social media from a gender lens to better understand the underlying factors influencing women entrepreneurs' social media (SM) usage in their businesses. It is structured into three main sections, section one tackles the motivations behind women entrepreneurship and characteristics of women-owned business. Section two addresses the main benefits and risk postulated by social media to MSMEs. And finally, section three discusses the relevance of social media to women business.

A. Women Entrepreneurship

This section focuses on explaining the main differences documented in literature between male and female entrepreneurship in terms of motivations influencing their engagement in business as well as the main characteristics of their business.

1. Motivations behind women entrepreneurship

The study of the entrepreneurial process and its performance spans across several research fields, including economics, management, psychology, and sociology. Across these fields, research has placed more emphasis on the various factors that motivate women in different contexts to start their own business and challenges that stand against realizing their entrepreneurial potential both on the micro and macro-levels (Bui et al., 2018). Studying these motivations is considered integral to evaluating business performance (Carranza et al., 2018).

Literature has gone a step further by classifying these different variables underlying women's choice to become self-employed (Das, 2000; Deng et al., 1995). For instance 'opportunity-based' (positive) versus 'necessity-based'(negative) entrepreneurship (Fairlie & Fossen, 2018). The opportunity perspective refers to "perceiving entrepreneurship as an appealing alternative chosen amongst a range of possible options", necessity- driven perspective, on the other hand, entails choosing entrepreneurship as a "way-out from specific conditions due to perception of limited market options". And so, opportunity-driven orientations are more related to higher motivation and aspirations towards success and empowerment, and necessity-driven orientations are related to the business's survival phase (Kariv, 2013).

These orientations have been rooted in research concerned with the "pull-push" model. The "opportunity perspective" is associated with the "pull" factors characterized by taking advantage of the entrepreneurial opportunity and advancing socio-economic status. It commonly includes both the desire for self-achievement and the gaining of wealth (Dawson & Henley, 2012). While the "necessity orientations" at the other end are linked to "push" factors that are viewed as the barriers standing against one achieving entrepreneurial potential due to dissatisfaction with his/her current situation or lack of job options (Williams and Williams 2011). However, a strand of literature has argued that motivations behind establishing a new venture go beyond one factor; it is a combination of elements that together constitute the incentives behind becoming self-employed (Eijdenberg et al., 2015).

Literature has investigated why women pursued entrepreneurial opportunities from the push and pulled the model's perspective. Many studies have contended that women are motivated to choose

self-employment out of push factors rather than pull factors, specifically lack of jobs and economic necessity. An example is a study by Jamali (2009) on Poland's case indicated that women chose to pursue their own business driven by dissatisfaction with government jobs.

Recently, several studies have placed more emphasis on pull factors such as becoming their own boss and desire for self-fulfillment as motivators for women to engage in self-employment. For instance, a case study on women entrepreneurs in Venezuela found women were driven by the desire earn higher income and becoming independent (Zimmerman & Chu, 2013). Similar results were observed for women entrepreneurs in Malaysia were encouraged by the motivations of becoming more independent and recognized by their societies (H. C. Ismail et al., 2012).

The paper by Bastian et al., (2018) studying the underpinning motivations for female entrepreneurship in Lebanon and the United Arab Emirates (UAE) has explained that women owning or managing their own business combine both “push” and “pull” factors as motivations for starting their business. For Lebanon, push factors due to obstacles in integrating into the labor market and gender discrimination on one side; and pull factors such as balancing personal and professional lives on the other side (Jamali, 2009). For UAE, female ex-pats were more encouraged by “push factors” such as insufficiency of job offerings and financial stability (Bastian et al., 2018), while Emirati women on the hand were mainly encouraged by the urge for self-fulfillment and achieving work-life balance (Itani et al., 2011; Cho et al., 2019) as well as government promotion programs to women entrepreneurship (Tlaiss, 2013).

The paper by Dawson & Henley (2012) however argues that differentiating between “push” and “pull” factors may tend to be ambiguous. Analyzing data of the Quarterly Labor Force Surveys of the United Kingdom from 1993 to 2001, they claimed that the prime driver behind self-employment for both men and women is “becoming more independent”. However, women associate this motivation more with push factors such as satisfying their family and children's needs, while men link their motivation for achieving more independence to pull factors such as seeing market opportunity. Hence, though independence as a factor may be viewed as a pull factor, the underlying reasons behind choosing it differs from the gender perspective.

2. Characteristics of women-owned business

Previous research has pointed out to differences in performance between women and men-led business. A body of literature suggested that women-led business tends to underperform compared to that led by men in terms of employment, size, and revenues.

Using data from Characteristics of Business Owners Survey, Fairlie & Robb (2009) showed that women-led business performed worse compared to men-owned business with respect to realizing profits and hiring employees along with earning lower levels of sales. The research by Rosa & Sylla (2018) also reported similar results using data from the “Survey on Financing and Growth of Small and Medium Enterprises” for 2011 and 2014.

This could be partially explained by the nature of the business that women operate, most of the women-owned business tend to be concentrated in services and retail sectors rather than business services and manufacturing. These sectors are characterized by being small in size with low

probability for profitability or achieving high growth (Carranza et al., 2018; Fairlie & Robb, 2009). In addition, women businesses have lower probability for being based outside home or to engage in export market (Terjesen et al., 2016).

In terms of financial capital acquisition, research indicated that women are significantly more likely to start and operate their business on a lower amount of capital than men (Jennings & Brush, 2013). In addition, women compared to men are more likely to be self-financing or relying on internal sources of financing that is from family and friends rather than depending on external sources of financing (Carranza et al., 2018).

Financial constraints pose a serious challenge to women entrepreneurs. An Assessment on MSME Financing Gap by the World Bank in 2017 postulated that globally the total MSME finance gap for women stands at \$1.7 trillion, with the MENA region ranking the second in terms of high finance gap for female owned microenterprises following East Africa (29 percent that is a total of \$16 billion) (Bruhn et al., 2017). Research has attributed the challenges women face in accessing financial resources to a combination of supply-side factors (for instance, investors interest to specific industries that tend to under-represent women, gender discrimination in banks terms) and demand-side factors (women business tend to be risk averse, fear of rejection and dissatisfaction with banks experience (Coleman et al., 2019; Carranza et al., 2018).

Although the aforementioned characteristics documented by literature may indicate that men-owned business outperform women-owned ones, there is a growing evidence that proves that women-led business fair the same or even outperforms busines by men when controlling for

structural factors. Using Australia as a case study, Watson (2002) showed that minimal differences between males and female were observed when it comes to total income to assets.

B. Potential Benefits and Risks of Social Media to MSMEs

Although academic research has begun exploring ICTs role in business ecosystems in recent years (Sussan and Acs 2017), tackling it from a gender perspective remains mostly an untapped area. This research tackles this dimension of literature, which is proliferating. It seeks to extend and deepen the understanding of how women entrepreneurs leverage emerging digital technology to build and operate innovative enterprises and overcome the constraints they face in the offline environment.

Digital solutions have been contributing to completely transforming the business dynamics and establishing a new economy online over the last few years. Using these means, consumers seek better communication and interaction, more convenience in shopping, and the power to choose from different options (Hossain & Rahman, 2018). As such, digital solutions, including e-commerce, social media, delivery apps, and digital payments, have expanded businesses' access to a broader base of potential new customers. This is significantly transforming the way businesses are conducted, making digital solutions, primarily social media (SM) and social networking websites (SNWs), inevitable components of any business strategy (Genç & Oksuz, 2015). The ease of using social media and the availability of most of the social networking websites such as Facebook free of charge promote the wide use of these tools (Ali, 2011; Ughetto et al., 2019).

The paper by Olanrewaju et al. (2020) mapped out different areas of the use of social media by entrepreneurs, including amongst which:

- **Promote marketing and brand recognition:** SM is transforming how marketing is being conducted by enabling entrepreneurs to advertise their goods on many SM channels with cost advantages over conventional advertisement and marketing methods. Brand marketing on SM platforms increases ad exposure, which in turn improves revenue by using activities such as posting endorsement comments of customer and marketing content that could induce customer interaction by sharing, commenting, and liking. Through social media platforms, businesses could be rated, and feedback could be provided which could help business improve the products and services they provide (Ghorfi & Hatimi, 2020).
- **Access to new and more sources of information, skills, and resources:** SM has made it easier for the entrepreneur to search and gather information. Through interacting with SM, entrepreneurs could connect to experts for technical and problem-solving issues.
- **Networking:** SM has supported maintaining and enforcing business relations with customers and suppliers and expanding the business base for new potential customers. SM helps individuals from different geographical areas to network and connect with related or different socio-economic backgrounds. Networking through SM can also influence the business development process by allowing entrepreneurs to capitalize on social capital, argued by Smith et al. (2017) to be differently formed through SM due to its affordability.

This is of particular importance to the MENA region, where informal sector is prevailing. According to a study by Ghorfi & Hatimi (2020) social media has been supporting businesses in better learning the preferences of customers and improving the products and services they offer through collecting data via online surveys for instance. In addition, social media was proved to facilitate mobility of products and services and better communication with the customers and suppliers' base.

Notwithstanding the benefits of incorporating social media in starting and operating businesses, SM usages pose risks to entrepreneurs. This includes privacy risks such as identity theft, inability to control access to information or on the content posted by others, and additional time commitment.

C. Women Entrepreneurship and Social Media

Entrepreneurs from students to homemakers are increasingly incorporating social media (SM) their own business, thanks to its ability in overcoming business challenges such as securing physical space or heavy labor (Farhin, 2018). This section presents the literature that have tackled motivations behind women entrepreneurs' incorporation of SM in initiating or operating their business activities. The extent to which women entrepreneurs perceived SM potential in overcoming the constraints that stand against starting or expanding their business.

Recent work on cyber-feminism addressed women's attitudes towards new media, demonstrating the transformative ability of the internet to the obstacles to entrepreneurial participation for a population historically under-represented in entrepreneurship (Dy et al., 2017). Digital

technologies have proven to benefit women by increasing flexibility in the workplace, reducing mobility constraints, and allowing women to tap into new sources of information and funding opportunities (such as crowdfunding).

Research went a step further and explored the effect of social media to women empowerment. The conceptual model proposed by Ajjan et al. (2014) explored this interrelation. They explained that using social media has a substantial impact on social capital and self-efficacy, resulting in achieving women empowerment (Crittenden et al., 2019):

- Self-efficacy defined as “one’s belief in his/her capacity to employ the necessary resources as required in a particular situation” (Bandura, 1997).
- Social capital defined as “networks that enable collective action through “bridging” and “bonding” networks (Woolcok & Narayn, 2000; Puntan, 2000). "Bridging" is closely related to “weak ties” and speculates that businesses with “broad, complex, and weakly related social networks have access to creative ideas but may face challenges in pooling resources to exploit these ideas”. In comparison, "bonding" is maintained through the interactions with individuals with strong ties, including family and close relatives, and is typically accompanied by continued emotional or tangible support that may result in raising more capital to finance projects (Stam et al., 2014).

Empirically, Beninger et al. (2016) proved the applicability of this conceptual framework to the Egyptian context. Based on an analysis of 30 interviews with women entrepreneurs, their findings indicated that incorporating social media by women entrepreneurs in their business resulted in strengthened social capital by expanding the reach to more customers and suppliers and access to

more knowledge and information sources. In addition to fostering self-efficacy through an increased feeling of independence and ability to influence decision-making. According to (Beninger et al., 2016), both social capital and self-efficacy could lead to women empowerment as women can recognize their capabilities and initiate their business as well as able to make their own life choices in line with Kabeer (2001) definition of empowerment (Crittenden et al., 2019).

Using a mixed approach combining both qualitative and quantitative research methods, Kim Tran (2014) in her thesis explored the impact of using digital technology on women entrepreneurship via surveying 55 women participants. The underlying theoretical framework for her analysis was based on three main theories 1) the Uses and Gratification Theory, 2) Social Identity Theory, and 3) Gender Communications Theory. Tran's main findings, like Ajjan et al. (2014) confirmed that women pursue personal fulfillment and achieve more freedom and flexibility through entrepreneurship rather than securing profitable business. Almost half of the female entrepreneurs interviewed indicated spending at least 75 percent of their time running their business online, with Facebook and Twitter being the main SNWs used in running their business. Her findings stressed the importance of building rapport on these sites to ensure a base of loyal customers with whom they could maintain a long-term relationship with (Kamberidou, 2020).

This is also argued by Paoloni et al. (2019) in their paper, which underlines SM's role in overcoming the obstacles women entrepreneurs face and becoming a tool for women empowerment by creating the enabling business environment. It could create new opportunities for entrepreneurial activities by establishing social networks and capital by better accessing knowledge and resources, resulting in enhanced decision-making processes.

Another paper by Plazibat & Renko (2020) studied SM's impact on the retailing sector, where most women entrepreneurs are concentrated via 63 surveys and 4 interviews. The study underscored that prime factor behind women initiating their business in Croatia is the desire to become their own boss. However, surveyed women noted the challenges they face in that regard, including low levels of profit and contracting the relevant labor. Women recognized the importance of SM to their business by mainly enabling them to be more innovative and through exchanging knowledge with other women.

Several empirical studies investigated the impact of using social media on business operations led by women, an example is the study by Hossain & Rahman (2018) on the context of Bangladesh. Using a quantitative research method by conducting Exploratory Factor Analysis and reliability and regression tests, they recognized the effect of five main factors of social media, those are work-life balance, networking, information access, cost efficiency and technical adaptability. In contrast they found no significant impact to social media on promoting and upgrading the products of women entrepreneurs.

However, the usage of social media by women entrepreneurs according to a body of research cannot overcome the inequalities women encounter in the offline environment. According to Ughetto et al. (2019) “women's digital technical ability cannot display all the postulated results in contexts where gender differences in terms of access, abilities, and self-perception are already identified” (p.908).

A report by OECD in 2019 highlighted the gender gap in accessing digital solutions and argued that women may face many of the challenges they encounter in traditional businesses online due to factors such as limited and ineffective networking and lack of entrepreneurship skills.

Duffy & Pruchniewska (2017) coined the term “digital double-blind,” in which they expressed through interviewing digital women entrepreneurs that they are under additional pressure online to achieve success through “soft self-promotion, interactive intimacy, and compulsory visibility”. Women resort to downgrading their success, exert extra effort to build relations with their followers, and may bring their private life to spot out of showing credibility to achieve success. As such, “these expectations that confine to traditional notions of femininity requires additional uncompensated invisible labor” (Basirico, 2019).

Cesaroni et al. (2017) have also recorded negative aspects to the usage of SM in business processes in Turkey, including the “repetitive nature of work, imitation, lack of satisfaction with professional growth, failure to meet the desired target audience and competitive and unfair pressures” (Etim, 2020). They have also argued that further work on determining social media usage could enable women entrepreneurs to maximize their market productivity and profitability (Carvalho et al., 2018; Ughetto et al., 2019).

IV. Research Methodology and Data

This chapter is structured to examine the research design, the sampling procedures followed, research instruments used, and data analysis procedures.

A. Research Design

The study aims to explore the extent to which women entrepreneurs in Egypt employ social media tools when starting or running their business, specifically the study will attempt to underline the main factors that influence women entrepreneurs to use social media. For that purpose, the study adopts quantitative research design and applies a descriptive research to explain the relationships among the proposed factors underlying the use of social media.

The quantitative analysis is undertaken through gathering and analyzing primary data from anonymous online surveys of qualified women entrepreneurs. The survey was chosen as the main instrument for collecting data given its cost and time efficiency, and to place less social pressure on respondents (Smith and Albaum, 2005). The questionnaire was then structured to gather ample information about the study's objectives using online website Survey Monkey and was remained accessible for almost a month between May and June 2020.

The surveys' results were interpreted using frequency analysis to identify the women entrepreneurs respondents' demographic profile, their business characteristics, their perceived potential benefits and constraints to using social media in their businesses, and shed light on the initial repercussions of running their business activities.

Following the model suggested by Hossain & Rahman (2018), the study then conducted Explanatory Factor Analysis (EFA) and reliability tests via the Statistical Package for Social Sciences (SPSS) to categorize the main motivational factors behind using social media by women entrepreneurs. The extracted main factors derived from the EFA were then tested using regression analysis to assess the extent to which social media usage influences women entrepreneurial opportunities.

B. Sampling Criteria and Strategy

The study targeted women entrepreneurs who meet the following requirements: 1) self-owned and controlled, 2) organized for profit, 3) run micro (10 or fewer employees), or small-sized business (11-25 employees).

The respondents from women entrepreneurs for this study were selected followed convenience sampling technique given that target group was women entrepreneurs using social media and were reached through Facebook groups and/or their business pages on social media. Convenience sampling is the “procedure in which the researchers select participants because they are willing and available to be studied” (Creswell, 2008, p.155).

A self-administered questionnaire using Survey Monkey was posted on specialized Facebook closed group pages directed to women-led business including “I Make This Lab (IMT Lab)” that is exclusive for women-owned business with over 1,400 members. The questionnaire link was as well shared directly in messages with women entrepreneurs who have official pages for their

business on Facebook or Instagram and via email with the pool of women entrepreneurs suggested by the UN Women Office in Egypt.

To ensure that women business owner fills the survey, a prior message was shared with participants for confirmation. The survey also included at its welcome message a mandatory question for the participants to confirm that they are women starting or operating a business; otherwise, they are disqualified, and the survey ends. All participants approved answering the 10 minutes questionnaire and were told at any time that they could pause or skip any questions. The questionnaire was anonymous, and no IP addresses were recorded or stored.

C. Questionnaire Design

The questionnaire developed in both English and Arabic was divided into the following four main sections (see Appendix B for the full questionnaire):

- Section 1: concerns the business profile (the industry to which it belongs, the registration, the number of workers, the means of funding).
- Section 2: was designed to learn about the factors that motivate women entrepreneurs to use social media in online business (independent variables) and their attitude towards entrepreneurship as a consequence (dependent variable) following the model proposed by Hossain & Rahman (2018). The question items in this section followed the “five-point Likert scale” ranging from 1 to 5 (strongly disagree to strongly agree).
- Part 3 tackled the participants' demographic profile (age, educational attainment, marital status, and previous employment experiences).

- Part 4 focuses on the business growth strategy and the perceived initial implications of COVID-19 to women entrepreneurs' business activities.

Sections 1 and 3 aim to answer the first research question on women entrepreneurs' common characteristics who use social media. The question items under Section 2 of the questionnaire were developed following the paper by Hossain & Rahman (2018) to answer the research questions on the factors that may influence women's entrepreneurs' behavior towards online business on social media. The questions under the last section were formulated to provide an overview of the main challenges women entrepreneurs face that may hinder achieving their entrepreneurial potential and initial insights on the impact of the global pandemic COVID-19 on their business.

D. Response Rate

Hundred ninety (n=190) respondents took the survey. Among them, 96 women entrepreneurs (n = 96) fully completed the survey. The only study in that regard tackling Egypt's context was a qualitative study by Beninger et al. (2016) via conducting semi-structured interviews with 30 women entrepreneurs.

E. Data Procedures and Analysis

The IRB approval (see Appendix D) was sought and received for surveying woman entrepreneurs. The consent form and the questionnaire questions were availed to participants in both English and Arabic.

The questionnaire results were analyzed using methods to obtain the frequencies and the percentages and presented in table and figure formats. Following the methodology proposed by Hossain & Rahman (2018) paper, the study has undertaken Exploratory Factor Analysis (EFA) using SPSS and reliability and regression tests. This analysis is primarily used for “data reduction that is to remove highly correlated variables or for structure detection to examine the underlying (or latent) relationships between the variables” (Bartholomew, Knott, & Moustaki, 2011). The study followed the rule of having the minimum ratio of 5 subjects per item, and overall, the sample size is close to 100 (data was extracted from 96 completely filled surveys) (MacCallum et al. 1999).

The base for conducting the EFA was the 15 survey questions initially grouped in 8 key categories 1) Entrepreneurial opportunity (1 question), 2) Technical adaptability (2 questions), 3) Product improvement and development (2 questions), 4) Work-life balance (3 questions), 5) Network building (2 questions), 6) Access to information (2 questions), 7) Cost efficiency (1 question), and 8) Promotion (2 questions).

F. Limitations

The study followed convenience sampling technique with relatively small size sample and as such the results cannot be generalized. One of the Facebook Groups where the questionnaire was posted targeted married women given the large number of women members (more than 50,000 women members) and so the results might be generating more patterns relevant to married women. The study has also focused on selected number of factors that could explain the reason behind women entrepreneurs using social media in their online business, however, there are other independent

variables that could be considered including for instance indicators on the extent to which these women are digitally enabled.

Complementing the quantitative analysis with qualitative research methods such as interviews and focus groups would have given further insights into women-led business experiences using social media.

V. Results, Findings, and Discussion

A. Basic Demographics of Women Entrepreneurs Using Social Media

Table 1 demonstrates the leading target group's demographic characteristics- the women entrepreneurs who have official Facebook and Instagram pages for their business.

Table 1 Respondents Profiles

Variable	Category	Percentage	N
Age	Under 18	0%	0
	18-24	5.2%	5
	25-34	57.3%	55
	35-44	29.2%	28
	45-54	7.3%	7
	55-64	1.0%	1
Qualification	Primary or Preparatory	0.0%	0
	Secondary	2.1%	2
	Vocational training/certificate	0.0%	0
	University degree (Undergraduate)	71.9%	69
	Post Graduate (Masters, Ph.D., MBA,---)	26.0%	25
Marital Status	Married	66.7%	64
	Unmarried	33.3%	32

Source: Calculations are based on survey results

Many of the respondents fall under the age category of 25 to 34 years. Women entrepreneurs in the sample are considerably well-educated, with more than two-thirds of them having a university degree and fewer than 3% having a high school diploma or less. When asked about the university name, it could be observed that almost 58% are graduates of public universities, and 34% graduated from private universities.

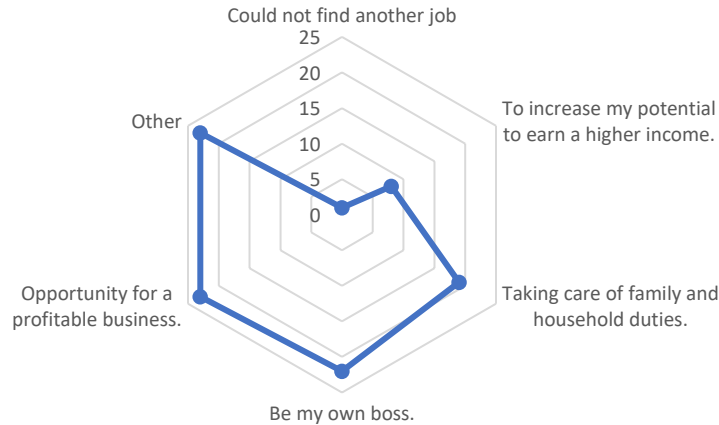
These results contrast with the findings of the study by (Rizk et al., 2019). Using data from the Egypt Labor Market Panel Survey (ELMPS), they showed that less-educated women had more chances of owning enterprises than educated women. Specifically, 4% of illiterate women-owned enterprises in 2018 compared to 1-2% of women with other education levels. one explanation

could be that one of the Facebook pages where the questionnaire was posted target mainly married and educated women.

More than 65% of the women entrepreneurs surveyed remarkably are married, and 33% are unmarried, which signifies that operating a business online could allow women to secure a decent source of income while responding to their family commitments.

The survey asked women entrepreneurs on the most crucial reason behind pursuing their own business. The percentages for choosing the top four reasons were very close to 20% to 25%. The highest rate of the respondents (24%) mentioned that they “saw the market opportunity for a profitable business”, the same percentage picked the “Others category,” where many of them were motivated by passion in pursuing their business. This was followed by “the desire to become their boss” (23%), and almost equally selected motivation by the respondents was the “need for more flexibility to earn an income while taking care of family and household duties” (20%). Only one percent of the respondents indicated that the motive behind their business is to “increase their potential to earn a higher income”.

Figure 10 Reasons for undertaking business

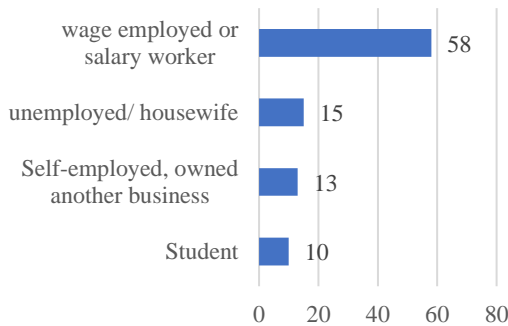


Source: Calculations are based on survey results

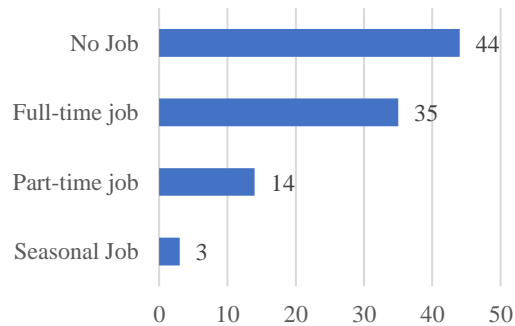
The participants were asked about their previous work experience before starting their own business. Overall, more than half the respondents (60%) were either waged employed or salary workers, followed by 16%, indicating that they were unemployed or housewives. A sizable proportion of 13.5% was self-employed or running a business. (see Figure 11)

Figure 11 Employment Profile of Respondents

Before this business, what was your primary occupation?



Currently, do you have any other job in addition to managing your own business?



Source: Calculations are based on survey results

Currently, following starting or running the business, 46% of the surveyed women indicated they are not involved in any other paid job. However, 36.5% still work full-time jobs besides doing

their business, 14.6% work part-time jobs, and 3% work seasonal jobs. It could be stipulated that the generated income out of business is substantially low to women entrepreneurs to give up their jobs if they are employed.

B. Business Profile for Women Entrepreneurs Using Social Media

Table 2 illustrates information about the business profile of the surveyed women entrepreneurs. The businesses are concentrated in three main sectors as follows: fashion, beauty, and retail (28%), food services (22%), and handcrafts (22%). None of the surveyed women entrepreneurs in this sample categorized their business as information technology or real estate.

Table 2 Business Profile of the Respondents

Variable	Category	Percentage	Frequency
Which industry does your business belong to?	Fashion, Beauty & retail	28.1%	27
	Food Services	21.9%	21
	Handcrafts	21.9%	21
	Other	16.7%	16
	Business Consultancy	3.1%	3
	Education	2.1%	2
	Fitness, Nutrition & Wellness	2.1%	2
	Healthcare	2.1%	2
	Photography	1.0%	1
	Transportation	1.0%	1
No. of years the business has been running	0	9.4%	9
	1-5	80.2%	77
	More than 5	10.4%	10
No. of initial Employees	0	37.5%	36
	1-5	43.8%	42
	More than 5	3.1%	3
No. of Current Employees	0	32.3%	31
	1-5	40.6%	39
	More than 5	11.5%	11
Is your business officially registered	Yes	26.0%	25
	No	74.0%	71
Did you seek financial support	Yes	31.3%	30
	No	68.8%	66
From where these funds were borrowed?	Formal financial institutions (Bank, microfinance institutions, loan/assistance from the government or Social Fund for Development)	6.3%	6
	Informal Sources (Relatives, friends, lenders)	25.0%	24

Source: Calculations are based on survey results

Most of the businesses have been established and running for a range of one to five years (80%).

A significant percentage of the businesses ran by women (more than 70%) are not registered.

In general, the respondents are divided between working alone (40%) and those who are an engaging maximum of 5 employees in their business (44%).

In terms of funding sources, around 69% of respondents did not seek financial support when starting their business. And even out of the 31% who sought such support, it was mainly through informal sources that are funded from family, friends, or lenders with only 6% out of the total 96 respondents reached out to formal financial assistance through banks, microfinance institutions, or loans/assistance from the government.

C. Primary Nature of Business Operations

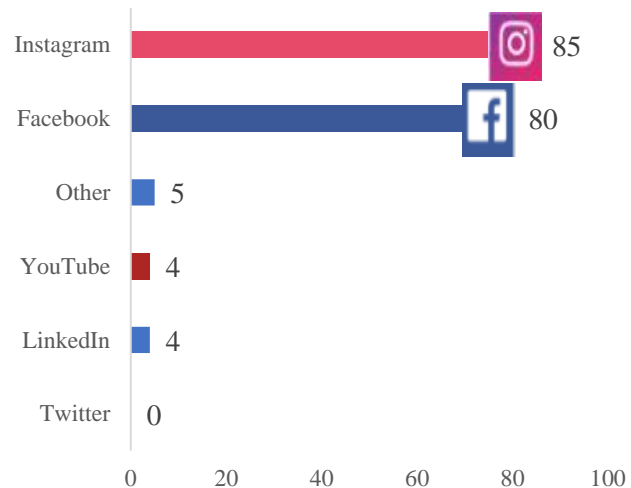
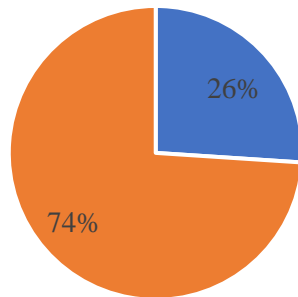
The highest proportion of surveyed women entrepreneurs noted that they primarily conduct their business online (73%), while only 23% of the respondents noted that they operate their business both online and via the physical store.

Out of the five social media platforms provided in the survey, 89% indicated using Instagram in running their business, 83% used Facebook, and only 4% indicated using LinkedIn and YouTube. Although Facebook is a widely used social media medium, it is gradually losing its position to Instagram due to its relatively inexpensive and more engaging interface that promotes the brand, product, or service (Zafar et al., n.d.)

Figure 12 Nature of business and most used social media applications for the sample

- a) Operation of the business (online and/or physical store) b) The most used Social Media Platform to run the business

- Both Online and Physical store
- Online store only



Source: Calculations are based on survey results

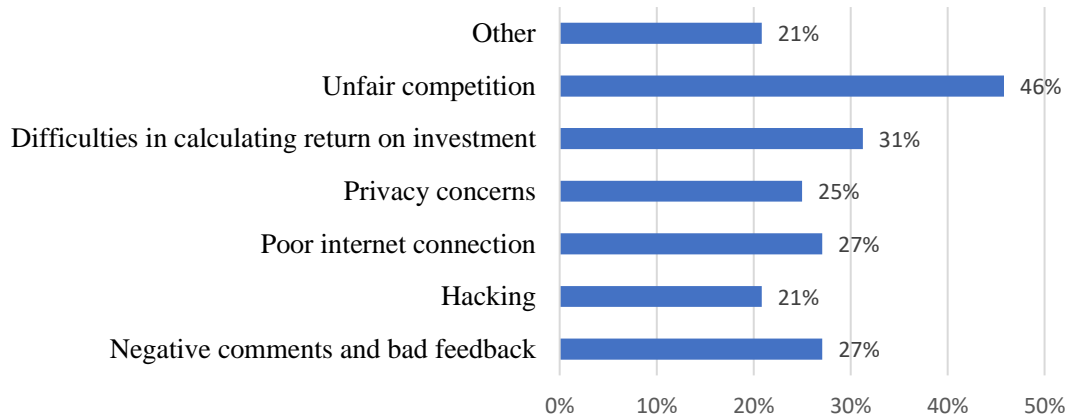
When asked to indicate up to three unpleasant sides for using social media in their business, a large proportion of women entrepreneurs indicated unfair competition (45%). This is partially due to the ease of access to the market through social media, which has equally opened doors for less qualified individuals who could imitate entrepreneurs' original creations at significantly lower costs, creating unfair price competition.

Another major concern for women to use social media in their business is the difficulty of calculating returns to investment (31%). Between 21 to 28% picked remaining options, poor internet connections, negative comments, and privacy concerns.

Under the “Others” section picked by 21% of the respondents, women entrepreneurs explained further constraints resulting from using social media including the difficulty of using its algorithms and keeping up with the updates. In addition, some of the respondents highlighted logistical

challenges such as customers that do not pay for product/service or refuse to receive the products when delivered.

Figure 13 Unpleasant sides of social media (out of 96)

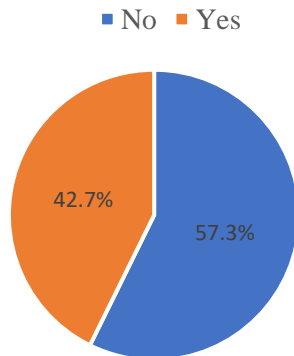


Source: Calculations are based on survey results

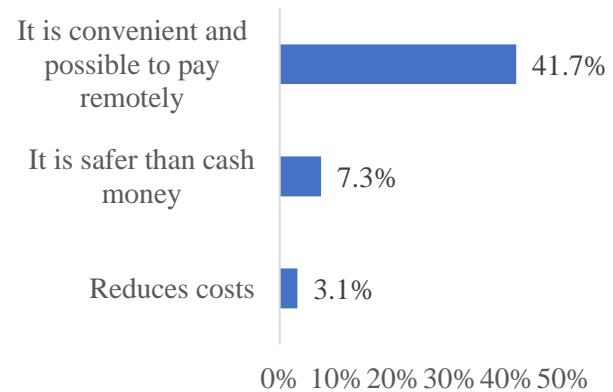
Women entrepreneurs were asked about how they use digital payment services in operating their business activities. Less than half the respondents (42%) indicated employing such means in their business due to the ease in paying remotely and its convenience. This result shows that women entrepreneurs still face the challenge of learning about and adopting the most appropriate digital finance services for their business.

Figure 14 Use of respondents to Digital Financial Solutions

a) Usage of digital finance solutions



b) The perceived advantage of using digital finance solutions



Source: Calculations are based on survey results

D. Women-led Businesses Usages of Social Media

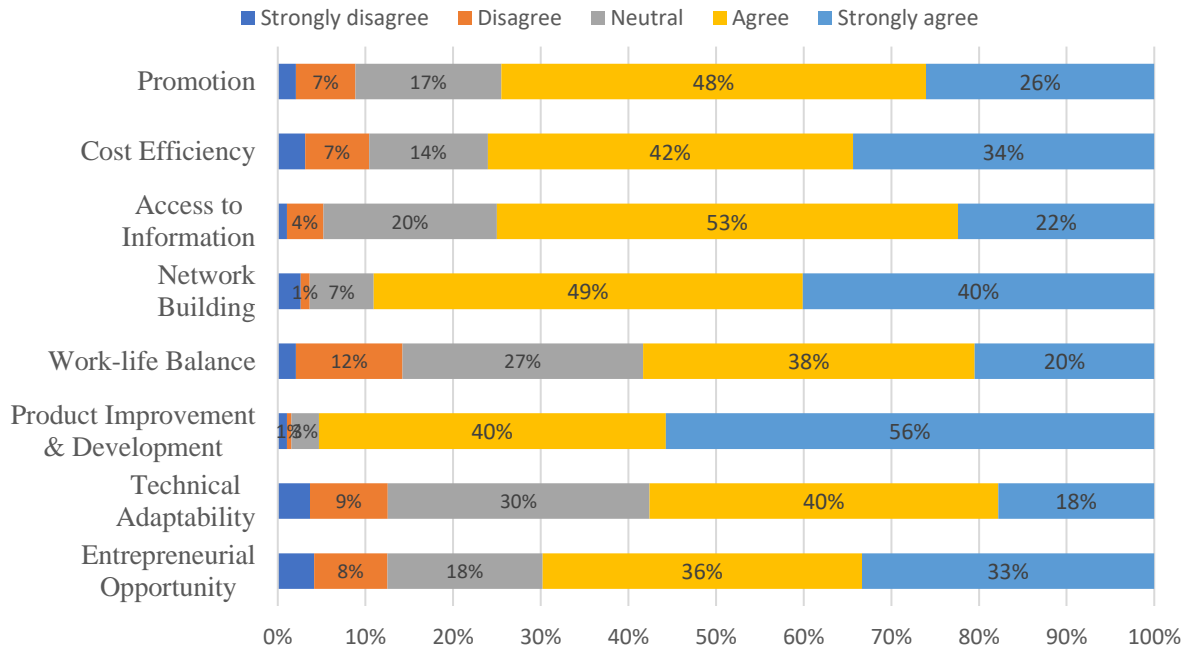
The behavior of women entrepreneurs towards social media was measured based on some of the proposed question items by Hossain & Rahman (2018) (see Appendix 1 for the full list). The items followed a 5-point scales anchored with ‘strongly disagree’ (1) and ‘strongly agree’ (5).

Overall, the respondents expressed high satisfaction with social media usage in their business across all the 8 proposed groupings (an average of 74% Strongly agreed/ agreed to the statements, an average of 17 % were neutral, and 8.5% disagreed/strongly disagreed).

The respondents ranked first “product development and improvement” via soliciting customer input and feedback as the main factor motivating them to use social media in their business. The second rank was the contribution of social media to “building networks,” and in the third place is “cost efficiency” of using social media.

The respondents viewed SM's role in promoting their products or services, creating work-life balance, and SM technical adaptability of social media as the least potential factors that could induce them to use SM as their primary business platforms.

Figure 15 Factors affecting the use of SM by Women Entrepreneurs



Source: author's calculations based on survey results

Regression Analysis

To run a regression analysis to the expected factors that influence women' usage to social media in business, the study followed the two-stage data analysis proposed by Hossain & Rahman (2018)—first conducted Exploratory Factor Analysis (EFA) to extract the most relevant significant factors followed by reliability analysis and multiple linear regression test.

The EFA analysis grouped the proposed questions into factors that load well. The factorability testing of the questions met most of the conditions and fell within the acceptable ranges set in criteria by (Carey et al., 2013) as follows:

- All 15 items correlated at 0.3 with at least one other item (see Appendix D-A)
- Kaiser-Meyer-Olkin measure of sampling adequacy was 0.713 “above the recommended 0.6”(Kaiser, 1974).
- Barlett's test of sphericity has a statistically significant value is $(X^2 (105) =462.3, p<.05)$.

Therefore, all the proposed 15 question items were considered.

The next step was to combine the relevant items into grouped factors and compute their composite scores to measure the extent to which women entrepreneurs are using SM in their business. After running several tests and rotations, the Principal Axis Factor (PAF) analysis was used along with the loadings matrix's rotation using varimax. This analysis assumes a causal relationship exists and is used to generalize to the population.

The initial “eigenvalues” showed that the first four factors explained 48.6% of the variances. In line with the parallel analysis and examination of the scree plot, the study opted for the 3-factor model explaining 43% of the total variance, ensuring that it is the most supported model theoretically. Therefore, one item was eliminated on the entrepreneurial opportunity as it did not meet the condition of having a primary factor loading and no cross-loading of 0.4 or above with any other factor (Comrey & Lee, 2013).

In line with the factor analysis results, the 3 significant factors were grouped and labelled the following: **1) Social Media Functionality, 2) Work-life balance, and 3) Product development and improvement.** To ensure consistency of these proposed factors, the study ran reliability tests using Cronbach’s alpha. All the factors scored alphas above the recommended threshold of “0.75” (Marsh et al., 1988).

Table 3 Results of EFA and Reliability Test

Factor Labeling	Factor Items		EFA Factor Loading	Eigen Value	Variance Explained	Alpha
SM Functionality	AtI_01	Based on social media information, I could better understand the market options.	0.637	3.74	24.95	0.80
	AtI_02	Disseminating knowledge across the client networks is simpler	0.521			
	Tech_adap01	More comfortable with the fewer technical complications involved in running a business on social media.	0.566			
	Tech_adap02	More comfortable that basic technological literacy is sufficient to run the business.	0.453			
	Cost	Lower cost to initiating/operating business on social media than offline	0.493			
	NB_01	Support in building a community of followers online.	0.594			
	NB_02	Support more involvement with customers	0.638			
	prom_01	More comfortable to engage influencers on SM, who would spread positive word-of-mouth.	0.450			
	prom_02	More comfortable and convenient to market the products on SM than on conventional media.	0.459			
Products develop. & Improvement	Prod_01	Feedback and customer opinions help to develop new and innovative products from time to time.	0.988	1.46	9.70	0.84
	Prod_02	Feedback from customers helps to improve products and services offered.	0.706			
Work-life Balance	WLB_01	Operating business on SM allows a better work-life balance.	0.805	1.31	8.72	0.76
	WLB_02	Family members encourage and support more when running a home-based business.	0.547			
	WLB_03	Business on SM helps me to spend more with my family.	0.771			

Source: generated using the survey results.

N.B. survey questions are based on the paper of Hossain & Rahman (2018)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Technical Adaptability and Access to Information	93	1.67	5.00	3.9152	.56642
Work-life balance	93	1.00	5.00	3.6344	.83848
Product improvement and development	93	1.00	5.00	4.4785	.64232
Valid N (listwise)	93				

Following the EFA and reliability checks, the study ran a **multiple linear regression test** to the resulted factors groupings derived from the EFA to explain social media usage's impact on generating business opportunities for women.

The regression test was calculated to predict “Entrepreneurial opportunity” the dependent variable based on the following independent variables derived from EFA analysis 1) product development and improvement, 2) SM functionality, and 3) work-life balance.

A significant regression equation was found ($F(3, 92) = 9.436, p < .000$), **with $R^2 = 0.235$** . it is predicted that “Entrepreneurial Opportunity” is equal to $-.886 + 0.391$ (Product dev. & imp.) $+ 0.271$ (Work – life balance) $+ 0.514$ (SM Functionality), where these variables are coded from 1: Strongly disagree to 5: Strongly agree.

All these three factors were positively correlated with the dependent variable at the significance level ($p < 0.05$). The model explained 23.5% of the variance in the dependent variable.

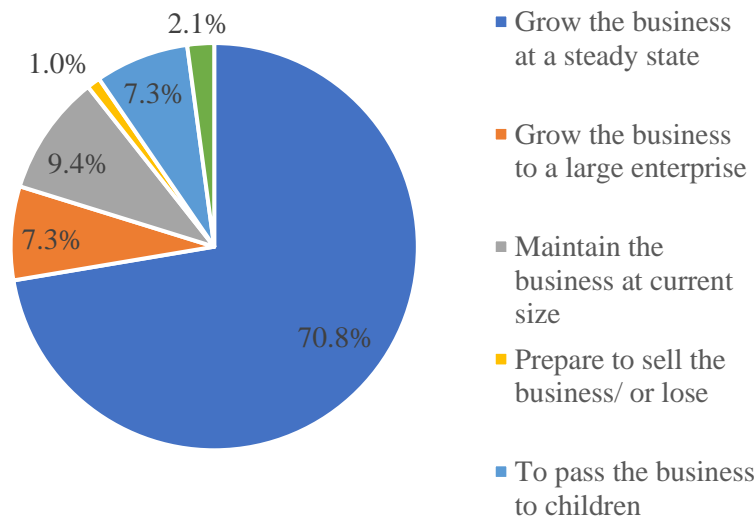
Table 4 Regression Analysis

	Beta (β)	T	Sig.
Constant	-.886	-.964	.338
Product development and improvement	.391	2.403	.018
Work-life balance	.271	2.141	.035
SM functionality	.514	2.673	.009
R Square R^2	0.235		
Adjusted R^2	0.210		
F value	9.436		
a. Dependent variable: Entrepreneurial Opportunity			

E. Business Growth Strategy and the Impact of COVID-19

In terms of business growth plans, most women entrepreneurs (70%) indicated that their business strategy for the upcoming 5 years is to “grow the business at a steady-state to provide more employment opportunities.” Only 7% indicated their ambition for growing their business to a larger enterprise that could be sold.

Figure 16 Business growth strategy for the upcoming 5 years



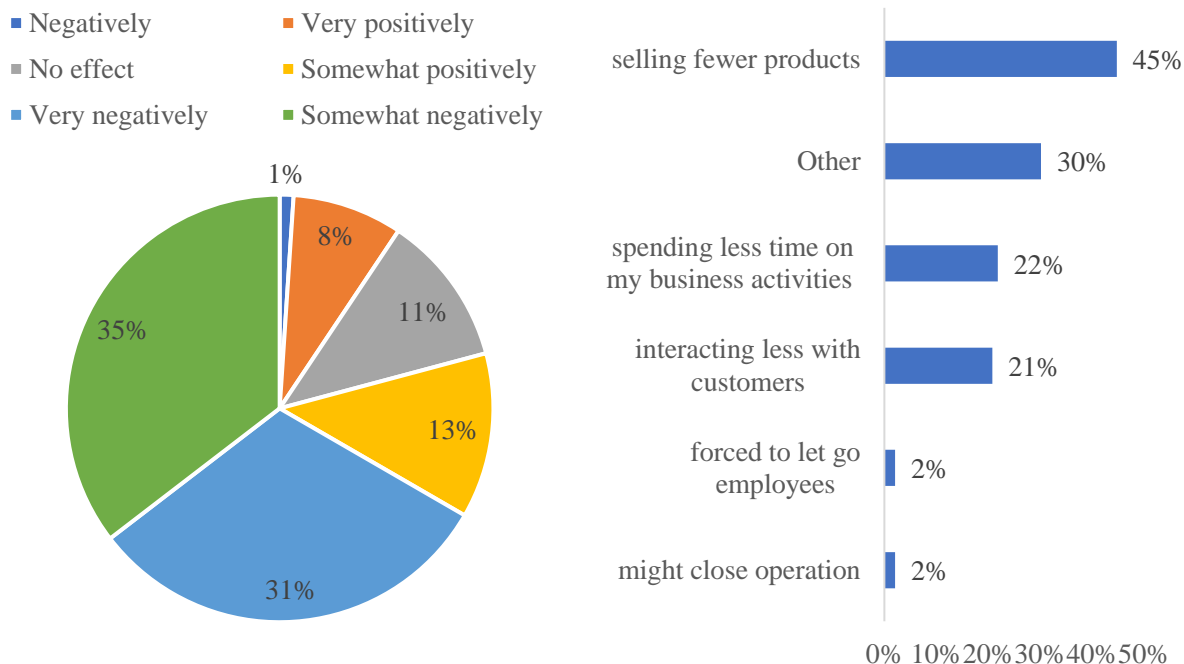
Source: author's calculations based on survey results

Considering the outbreak and spread of the pandemic COVID-19, figure 16 show that 70 percent of the respondents have indicated that they were “negatively” or “somewhat negatively” impacted. In terms of entrepreneurial processes, 45 percent indicated that COVID-19 resulted in selling fewer products or providing fewer services, and around 2 percent have been forced to halt their activities.

Under the “Others” category, while some women indicated that they have benefited from the restrictions posed by COVID-19 in terms of expansion of the customers base using online services

for purchasing products, some of the respondents indicated that they had pressure in terms of satisfying more family commitments especially with the closure of schools, in addition to facing difficulties of securing materials for production.

Figure 17 Initial Implications of COVID-19 to women business



Source: author's calculations based on survey results

These trends are further confirmed by a recently published survey conducted by the National Council of Women in Egypt in collaboration with ILO and Micro, Small, and Medium Enterprises Agency on 440 leading Egyptian businesses. The results indicated that 79 percent of the respondents perceived the repercussions of COVID-19 as unfavorable, leading to a complete shutdown of business, the decline in revenues, and ceasing some of the activities (ILO, 2020).

VI. Conclusion

The thesis aimed at investigating the extent to which digital solutions, specifically Social Media (SM), could create an enabling environment for women to start and/or operate their business through online channels.

The literature review proved the significant impact of social media on business activities led by women mainly due to the features it encompasses (being easy to use, low related cost, expanded access to information and resources, marketing of products and services, and facilitating more accessible and timely contact with customers and suppliers).

However, using social media alone cannot overcome the offline inequalities that women face in terms of structural barriers and inhibiting social norms and traditions. In addition, some studies showed constraints posed by these means to women entrepreneurs, amongst which unfair competition, additional time commitment, privacy risks and calculating return on investment.

The main findings derived from the survey that targeted women-led business in Egypt indicated that women entrepreneurs operating a business online perceived social media as an essential instrument to develop and upgrade their products/ services via interaction and feedback with the customers. Furthermore, SM was viewed as one of the main factors contributing to women entrepreneurs attaining work-life balance. These results substantiate earlier findings that proved social media as essential platforms that respond to market's needs (Park, Sung, & Im, 2017). SM provided a more manageable, less costly way to

maintain and strengthen relationships with stakeholders and further stimulate different business activities, aside from face-to-face communications. This boosts the usability of goods and services posted on social media without pursuing conventional market channels.

Nevertheless, women entrepreneurs are still encountering numerous obstacles in securing the necessary financial resources to access digital solutions. It could be observed that similar to the offline context, few women entrepreneurs resort to formal financial sectors when initiating or running their business. The vast majority are dependent on either funding their own business or through informal financing. A limited number of women entrepreneurs are using digital financial solutions such as credit and debit cards and online payments and found it more convenient than using cash in processing transactions.

The study suffers from some limitations in terms of the sampling technique and size and using cross-sectional data as well as depending on selected independent variables that could restrict the generalizability of findings. The literature review provided in this paper and survey findings could serve as a base for future research agenda that could be applied to a broader setting (i.e., country, rural versus urban setting, age). A further study with an enhanced sample size can lead to a more substantial contribution to improved generalizability results. It is also worth tracking the evolution and progress of women entrepreneurs in achieving their business targets across time and exploring more mechanisms for measuring performance, in addition to tracking the difference between the online and offline contexts across the different sectors women operate in.

Women entrepreneurs are still encountering obstacles in securing the necessary financial resources for accessing digital solutions, inhibiting social norms, and logistics issues. There is a need for prioritizing putting in place and operationalizing legislation that contributes to creating an enabling and regulatory environment for women entrepreneurship. In addition, developing policies on financial inclusion, infrastructural support, and training facilities to strengthen and develop the usage of digital solutions amongst rural and urban women entrepreneurs to expand and ensure the sustainability of their businesses.

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Appendices

Appendix A: Factors Underlying the Use of Social Media by Women Entrepreneurs

Related survey statement	Categories	Strongly disagree		Disagree		Neutral		Agree		Strongly Agree		T	Weighted Average
		%	N	%	N	%	N	%	N	%	N		
Opportunities available on social media motivate one to have his/her own startup.	Entrepreneurial Opportunity	4.30%	4	7.53%	7	17.20%	16	36.56%	34	34.41%	32	93	3.89
Fewer technical complications are involved in running a business on social media.	Technical Adaptability	3.23%	3	8.60%	8	30.11%	28	39.78%	37	18.28%	17	93	3.61
Basic technological literacy is sufficient to run the business.		4.35%	4	7.61%	7	29.35%	27	40.22%	37	18.48%	17	92	3.61
Customer feedback and views result in developing new innovative products from time to time.	Product Improvement & Development	1.08%	1	0.00%	0	3.23%	3	45.16%	42	50.54%	47	93	4.44
Customer feedback and views help to improve products and services offered.		1.08%	1	1.08%	1	3.23%	3	34.41%	32	60.22%	56	93	4.52
Operating business on SM allows a better balance between personal and professional life.	Work-life Balance	1.08%	1	8.60%	8	36.56%	34	34.41%	32	19.35%	18	93	3.62
Family promotes and further support a home-based business.		3.23%	3	9.68%	9	24.73%	23	40.86%	38	21.51%	20	93	3.68

Related survey statement	Categories	Strongly disagree		Disagree		Neutral		Agree		Strongly Agree		T	Weighted Average
Business on SM helps me to spend more with my family.		2.15%	2	18.28%	17	19.35%	18	37.63%	35	22.58%	21	93	3.60
Social media helps in building a community of followers online.	Network Building	4.30%	4	0.00%	0	4.30%	4	50.54%	47	40.86%	38	93	4.24
Social media gives me the advantage of greater customer involvement and engagement.		1.08%	1	2.15%	2	9.68%	9	49.46%	46	37.63%	35	93	4.20
Based on social media information, I could better understand the market prospects.	Access to Information	0.00%	0	6.45%	6	24.73%	23	50.54%	47	18.28%	17	93	3.81
Disseminating knowledge across the client network is simpler		2.15%	2	1.08%	1	15.05%	14	53.76%	50	27.96%	26	93	4.04
Lower cost to initiating/operating business on social media than offline	Cost-Efficiency	3.23%	3	7.53%	7	13.98%	13	41.94%	39	33.33%	31	93	3.95
It is easier to build influencers on SM, who would spread positive word-of-mouth.	Promotion	4.30%	4	10.75%	10	21.51%	20	46.24%	43	17.20%	16	93	3.61
More comfortable and convenient to market the products on SM than on conventional media.		0.00%	0	3.23%	3	10.75%	10	52.69%	49	33.33%	31	93	4.16

Appendix B: Survey Questions

1. Are you either trying to start or already have a business selling any goods or services to others?

Yes
No

2. Choose the Language of the Survey

English
عربي

هل لديك مشروع أو بصدد بدأ مشروع لبيع سلع أو تقديم خدمات للآخرين؟

نعم
لا

برجاء اختيار لغة الاستبيان

Consent Form

Principal Investigator: Gehan Ahmed Aboutaleb; Master Student Public Policy- The American University in Cairo (201221993861, Gihan.aboutaleb@aucegypt.edu).

You are being asked to participate in a research study. The purpose of the research is to identify the factors that influence women in Egypt to operate business on social media platforms. The findings will be presented and might be published.

- The expected duration of your participation is 10 minutes. You may be contacted for any further information during the research duration that will take 3 months.
- The procedures of the research will be as follows: you will kindly be requested to fill in below questionnaire pertaining your business and how do you view and use social media sites in your business for financial and non-financial purposes.
- There will be no certain risks or discomforts associated with this research. There will not be benefits to you from this research.
- The information you provide for the purposes of this research is anonymous.

Questions about the research, my rights, or research-related injuries should be directed to Gihan Aboutaleb at +201221993861

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

All information provided by you will be treated in strict confidentiality and used for research purposes.

For the questions, there are no right or wrong answers, what matters most is to receive your honest opinion.

By clicking next, you agree that you have read and understood the information included in this form and agree to participate in this study.

استمارة وافية مسبقة للمشاركة في دراسة بحثية

الباحث الرئيسي: جيهان أحمد أبو طالب، طالبة ماجستير بالجامعة الأمريكية بالقاهرة (البريد الإلكتروني: Gihan.aboutaleb@aucegypt.edu التليفون: 01221993861)

أنت مدعو للمشاركة في هذه الدراسة البحثية. هدف الدراسة هو تحديد أهم العوامل التي تؤثر على مدي استخدام رائدات الأعمال لمنصات التواصل الاجتماعي في مشاريعهم. نتائج البحث قد تنشر في دوريه متخصصة أو مؤتمر علمي أو ربما كليهما.

- المدة المتوقعة للمشاركة في هذا البحث 10 دقائق.
- اجراءات الدراسة تشمل على الطلب منك استيفاء الاستبيان المرفق. ستدور الأسئلة حول معلومات عامة عن المشروع الخاص بكم وكيف ان استخدام الوسائل التكنولوجية قد أثر على العمليات الخاصة بالمشروع سواء سلبيًا أو إيجابيًا.
- لا يوجد مخاطر متوقعة من المشاركة في هذه الدراسة.
- لا توجد استفادة متوقعة من المشاركة في البحث السرية واحترام الخصوصية: المعلومات التي ستدلى بها في هذا البحث سوف تكون سرية وستكون هويتك غير محددة.

أي أسئلة متعلقة بهذه الدراسة أو حقوق المشاركين فيها أو عند حدوث أي اصابات ناتجة عن هذه المشاركة يجب ان توجه الى جيهان أحمد أبو طالب (رقم الهاتف: 01221993861)

ان المشاركة في هذه الدراسة ماهي الا عمل تطوعي، حيث ان الامتناع عن المشاركة لا يتضمن أي عقوبات أو فقدان أي مزايا تحق لك. ويمكنك أيضا التوقف عن المشاركة

بالنقر على التالي، فإتك توافق على أنك قرأت وفهمت المعلومات المضمنة في هذا النموذج وتوافق على المشاركة في هذه الدراسة.

Business Profile

3. What products/services do you produce/provide?

4. To which sector do your products/services belong to

معلومات عن المشروع الخاص بكم

ما المنتجات / الخدمات التي تنتجها / تقدمها؟

إلى أي مجال ينتمي المشروع الخاص بكم؟

- | | | |
|---|-------------------------------------|---|
| Healthcare | <input type="checkbox"/> | الرعاية الصحية |
| Business Consultancy | <input checked="" type="checkbox"/> | استشارات الأعمال |
| Transportation | <input type="checkbox"/> | وسائل النقل |
| Fashion, Beauty & retail Other | <input type="checkbox"/> | الموضة والجمال والتجزئة أخرى |
| Photography | <input type="checkbox"/> | التصوير |
| Fitness, Nutrition & Wellness | <input type="checkbox"/> | اللياقة والتغذية والعافية |
| Education | <input type="checkbox"/> | التعليم |
| Food Services | <input type="checkbox"/> | خدمات الغذاء |
| Information and Technology | <input type="checkbox"/> | المعلومات والتكنولوجيا |
| Real Estate | <input type="checkbox"/> | العقارات |
| Handcrafts | <input type="checkbox"/> | حرف يدوية |
| Other (please specify) | <input type="checkbox"/> | غير ذلك (يرجى التحديد) |
| 5. Is your business officially registered? | | هل عملك مسجل رسمياً؟ |
| Yes | <input type="checkbox"/> | نعم |
| No | <input type="checkbox"/> | لا |
| 6. What is your primary motivation for pursuing your business? | | ما هو دافعك الأساسي لمتابعة مشروعك؟ |
| I wanted to be my own boss. | <input type="checkbox"/> | أردت أن أكون مديري الخاص. |
| I saw the market opportunity for a profitable business. | <input type="checkbox"/> | رأيت في السوق فرصة لعمل مربح. |
| I couldn't find work anywhere else. | <input type="checkbox"/> | لم أستطع إيجاد عمل في أي مكان آخر. |
| I needed more flexibility to earn an income while still taking care of family and household duties. | <input type="checkbox"/> | كنت بحاجة إلى مزيد من المرونة لكسب الدخل مع الاستمرار في رعاية واجبات الأسرة والمنزل. |
| I don't have any skills for other kinds of employment | <input type="checkbox"/> | ليس لدي أي مهارات لأنواع أخرى من العمل |
| My previous employment ended. | <input type="checkbox"/> | وظيفتي السابقة انتهت. |
| I wanted to increase my potential to earn a higher income. | <input type="checkbox"/> | أردت زيادة إمكانياتي لكسب دخل أعلى. |
| Other (please specify) | <input type="checkbox"/> | غير ذلك (يرجى التحديد) |
| 7. When did this business start? (please insert year number) | | متى بدأ هذا العمل؟ (يرجى إدخال رقم السنة) |
| 8. How many workers are employed by this business? (not counting yourself) | | كم عدد العاملين في هذا العمل؟ (لا تحسب نفسك) |
| No of initial employees | | عدد الموظفين عند بداية المشروع |
| Number of current employees | | عدد الموظفين الحاليين |
| Number of wage-employed or salary worker | | عدد الموظفين بأجر أو براتب |
| Number of women | | عدد النساء العاملات |
| 9. Do you only operate your business online or you also have a physical store? | | هل تدير عملك فقط عبر الإنترنت أم لديك أيضاً متجر فعلي؟ |
| Online store only | <input type="checkbox"/> | عبر الإنترنت فقط |
| Both Online and Physical store | <input type="checkbox"/> | عبر الإنترنت ومن خلال متجر فعلي |
| Other (please specify) | <input type="checkbox"/> | غير ذلك (يرجى التحديد) |
| 10. If you have both which one did you start first? | | إذا كان لديك أيهما بدأت أولاً؟ |
| Online store | <input type="checkbox"/> | عبر الإنترنت فقط |
| Physical store | <input type="checkbox"/> | من خلال متجر فعلي |
| 11. When did this business start to make profits? (please insert year number) | | متى بدأ هذا المشروع في تحقيق أرباح؟ (يرجى إدخال رقم السنة) |
| 12. Did you seek financial help to start or support this business? | | هل طلبت مساعدة مالية لبدء هذا العمل؟ |
| Yes | <input type="checkbox"/> | نعم |

No	<input type="checkbox"/>	لا
13. Where were these funds borrowed from?		من أين تم اقتراض هذه الأموال؟
Formal financial institutions (Bank, microfinance institutions, loan/assistance from government or Social Fund for Development)	<input type="checkbox"/>	المؤسسات المالية الرسمية (البنوك، مؤسسات التمويل متناهية الصغر، القروض / المساعدة من الحكومة أو الصندوق الاجتماعي للتنمية)
Informal Sources (Relatives, friends, lenders, etc)	<input type="checkbox"/>	مصادر غير رسمية (الأقارب والأصدقاء والمقرضين، إلخ)
Other (please specify)	<input type="checkbox"/>	غير ذلك (يرجى التحديد)

Factors for Using Social Media in Business

أهم العوامل وراء استخدام منصات التواصل الاجتماعي في مشروعكم

14. Which of the following social media platforms do you mostly use to run your business? (choose up to 3)

أي من منصات التواصل الاجتماعي الآتية تعتمد عليها في مشروعك؟

Facebook	<input type="checkbox"/>	Facebook
Instagram	<input type="checkbox"/>	Instagram
Twitter	<input type="checkbox"/>	Twitter
LinkedIn	<input type="checkbox"/>	LinkedIn
YouTube	<input type="checkbox"/>	YouTube
Other (please specify)	<input type="checkbox"/>	غير ذلك (يرجى التحديد)

15. Please evaluate the following statements on what motivated you to use social media.

Strongly disagree لا أوافق بشدة
Disagree لا أوافق
Neutral محايد
Agree أوافق
Strongly Agree أوافق بشدة

يرجى تقييم العبارات التالية حول ما دفعك لاستخدام وسائل التواصل الاجتماعي.

I was motivated to have my own start-up after noticing the opportunities available on social media
I am comfortable that there are less technical complications involved in running a business on social media.
Feedback and opinions from customers help to develop new and innovative products from time to time.

لقد كان لدي دافع لبدء شركتي الخاصة بعد أن لاحظت الفرص المتاحة على وسائل التواصل الاجتماعي
أنا مرتاح لأن هناك تعقيدات فنية أقل تتعلق بإدارة الأعمال على وسائل التواصل الاجتماعي.
تساعد التعليقات والآراء من العملاء على تطوير منتجات جديدة ومبتكرة من وقت لآخر.

16. Please evaluate the following statements on the impact of social media on work-life balance.

Strongly disagree لا أوافق بشدة
Disagree لا أوافق
Neutral محايد
Agree أوافق
Strongly Agree أوافق بشدة

يرجى تقييم العبارات التالية حول تأثير وسائل التواصل الاجتماعي على تحقيق التوازن بين العمل والحياة.

Operating business on SM allows a better balance between personal and professional life.
Family members encourage and support more when running a home-based business.

يُتيح إدارة المشروع عن طريق منصات التواصل الاجتماعي على تحقيق توازن أفضل بين الحياة الشخصية والمهنية.
أفراد الأسرة يشجعون ويدعمون أكثر عند إدارة المشروع من المنزل.

Business on SM enables me to manage more time for my family.

17. Please evaluate the following statements on the impact of social media on network building, access to information, marketing and cost-efficiency

Social media helps in building a community of followers online.
Social media gives me the advantage of greater customer involvement and engagement.
I could understand the business prospects better due to the information on social media.
It is easier to spread info through the community of customers
The cost of starting and running a business on social media is less.
It is easier to build influencers on SM, who would spread a positive word-of-mouth.

It is easier and convenient to promote the products and brands on SM rather than traditional media.

18. Which of the following unpleasant sides of social media have you ever coped with? (choose up to 3 options)

Negative comments and bad feedback
Hacking
Poor internet connection
Privacy concerns
Difficulties in calculating return on investment
Unfair competition
Other (please specify)

Strongly disagree
لا أوافق بشدة

Disagree
لا أوافق

Neutral
محايد

Agree
أوافق

Strongly Agree
أوافق بشدة

تمكنني الأعمال على منصات التواصل الاجتماعي من توفير مزيد من الوقت لعائلتي.

يرجى تقييم العبارات التالية حول تأثير وسائل التواصل الاجتماعي على بناء الشبكات، والوصول إلى المعلومات، والتسويق وكفاءة التكلفة

تساعد وسائل التواصل الاجتماعي في بناء مجتمع من المتابعين عبر الإنترنت.

تمنحني وسائل التواصل الاجتماعي ميزة مشاركة وإشراك أكبر للعملاء.

أستطيع أن أفهم آفاق لمشروع بشكل أفضل بسبب المعلومات على وسائل التواصل الاجتماعي.

من السهل نشر المعلومات خلال مجتمع العملاء

تكلفة بدء الأعمال التجارية وإدارتها على وسائل التواصل الاجتماعي أقل.

من الأسهل بناء مؤثرين على وسائل التواصل الاجتماعي، الذين ينشرون كلمة شفوية إيجابية.

من السهل والملائم الترويج للمنتجات والعلامات التجارية على وسائل التواصل الاجتماعي بدلاً من الوسائط التقليدية.

أي من الجوانب السلبية التالية لوسائل التواصل الاجتماعي تعرض لها مشروعك؟ (اختر ما يصل إلى 3 خيارات)

التعليقات السلبية وردود الفعل السيئة
القرصنة
الاتصال بالإنترنت ضعيف
اختراق الخصوصية
صعوبات في احتساب عائد الاستثمار المنافسة غير المشروعة
غير ذلك (يرجى التحديد)

Digital financial solutions

الحلول الرقمية المالية

19. Do you use any digital finance solutions for business operations? for example PoS (Point of sale) devices, credit and debit payment cards, internet banking, and e-commerce.

هل تستخدم أي من الحلول الرقمية المالية في معاملات مشروعك التجارية؟ على سبيل المثال، أجهزة نقاط البيع (PoS)، بطاقات الدفع ببطاقات الائتمان والخصم والخدمات المصرفية عبر الإنترنت والتجارة الإلكترونية

Yes

نعم

No

لا

20. What is the biggest advantage of using these digital finance solutions?

- It is convenient
- Possible to pay remotely
- It is safer than cash money Reduces costs
- Other

- ما أكبر ميزة لاستخدام الحلول الرقمية المالية في معاملات مشروعاتك التجارية؟
- إنها مريحة
- ممكن الدفع عن بعد
- إنها أكثر أماناً من النقود النقدية تقلل التكاليف
- غير ذلك (يرجى التحديد)

Information about yourself for statistical purposes

معلومات عنك لأسباب إحصائية

21. Please indicate your age in number

السن

22. Your highest level of education attained

- Primary or Preparatory Education completed
- Secondary Education
- Vocational training
- University degree (Undergraduate)
- Post Graduate (Masters, PHD, MBA,---)

- أعلى مستوى تعليمي تحصلت عليه التعليم الابتدائي أو الإعدادي
- تعليم ثانوي
- دبلومة فنية
- شهادة جامعية
- دراسات عليا
- من أي جامعة تحصلت على شهادتك

23. What is the name of the university you had your degree from?

24. Marital Status

- Married
- Unmarried

الحالة الزوجية

متزوجة

غير متزوجة

25. Prior to this business, what was your main occupation?

- Student
- Self-employed, owned another business
- Wage employed or salary worker
- Unemployed/ housewife
- Other (please specify)

قبل بدأ هذا المشروع، ماذا كان عملك الرئيسي؟

طالبة

صاحبة أعمال حرة، أو كنت ادير مشروع آخر

عاملة بأجر

عاطلة عن العمل / ربة منزل

غير ذلك (يرجى التحديد)

26. Currently do you have any other job in addition to managing your own business?

- No job
- Full- time job
- Part-time job
- Seasonal job

هل لديك حالياً أي وظيفة أخرى بالإضافة إلى إدارة مشروعك الخاص؟

لا وظيفة

وظيفة بدوام كامل

وظيفة بدوام جزئي

وظيفة موسمية

27. Which of the following best describe your business growth strategy over the upcoming 5 years?

- Maintain the business at current size, mainly to provide income for my family and employees
- Grow the business at a steady state to provide increasing opportunities for my employees and community
- Grow the business to a large enterprise that may someday be sold
- Prepare to sell the business/ or lose
- To pass the business to my children
- Other

ي مما يلي يصف بشكل أفضل استراتيجية نمو مشروعك على مدى السنوات الخمس القادمة؟

الحفاظ على المشروع في حجمه الحالي، كمصدر

أساسي لتوفير الدخل لعائلتي والموظفين

العمل على تنمية المشروع بخطوات ثابتة لتوفير فرص عمل أكبر لموظفين والمجتمع

تنمية مشروعك إلى مؤسسة كبيرة قد يتم بيعها يوماً ما

تصفية المشروع أو بيعه

تمرير المشروع لأطفالي

غير ذلك (يرجى التحديد)

28. Your business website or facebook page address

الصفحة الخاصة بمشروعك على الانترنت أو الفيسبوك

29. Please comment if you see any other challenges or opportunities to using social media in your business

هل ترى أي تحديات أو فرص أخرى لاستخدام وسائل التواصل الاجتماعي في عملك؟ أو لديك أي تعليق آخر

30. To what extent is COVID-19/coronavirus affecting your business?

ما مدى تأثير جائحة الكورونا على مشروعك؟

Very negatively

سلباً جداً

Somewhat negatively

سلبياً إلى حد ما

No effect

بدون تأثير

Somewhat positively

بشكل إيجابي إلى حد ما

Very positively

بشكل إيجابي للغاية

31. Which of the following statements, related to the immediate effect of COVID-19/coronavirus is applicable to your situation?

أي العبارات التالية المتعلقة بالتأثير الفوري بجائحة الكورونا ينطبق على مشروعك؟

I am selling fewer products/services

أنا أبيع منتجات / خدمات أقل

I soon (might) have to close my operation entirely

سأضطر قريباً (ربما) لإغلاق مشروعي بالكامل

I cannot interact / I am interacting less with my customers

لا يمكنني التفاعل / أنا أقل تفاعلاً مع عملائي

I am forced to let go (some of) my employees

أجد نفسي مضطراً لفصل موظفين

I am spending less time on my business activities because my care-giving duties increased

أقضي وقتاً أقل على مشروعي نظراً لزيادة أعباء الواجبات المنزلية

Other (please specify)

غير ذلك (يرجى التحديد)

Appendix D: SPSS Results for EFA and Regression

1. Correlations

		Correlations									
		Entre_	Tech_ada	Tech_ada	Prod_	Prod_	WLB_	WLB_	WLB_	NB_	NB_
		opr	p01	p02	01	02	01	02	03	01	02
Entre_opr	Pearson Correlation	1	.381**	.275**	.347**	.279**	.321**	.249*	.181	.338*	.227*
	Sig. (2-tailed)		.000	.008	.001	.007	.002	.016	.082	.001	.029
	N	93	93	92	93	93	93	93	93	93	93
Tech_ada p01	Pearson Correlation	.381**	1	.456**	.311**	.362**	.336**	.079	.207*	.402*	.409*
	Sig. (2-tailed)	.000		.000	.002	.000	.001	.450	.046	.000	.000
	N	93	93	92	93	93	93	93	93	93	93
Tech_ada p02	Pearson Correlation	.275**	.456**	1	.243*	.223*	.246*	.129	.044	.382*	.279*
	Sig. (2-tailed)	.008	.000		.019	.033	.018	.220	.674	.000	.007
	N	92	92	92	92	92	92	92	92	92	92
Prod_01	Pearson Correlation	.347**	.311**	.243*	1	.724**	.078	.147	.094	.152	.137
	Sig. (2-tailed)	.001	.002	.019		.000	.460	.160	.370	.146	.190
	N	93	93	92	93	93	93	93	93	93	93
Prod_02	Pearson Correlation	.279**	.362**	.223*	.724**	1	.082	.200	.057	.113	.100
	Sig. (2-tailed)										
	N										

	Sig. (2-tailed)	.007	.000	.033	.000		.432	.055	.589	.279	.340
	N	93	93	92	93	93	93	93	93	93	93
WLB_01	Pearson Correlation	.321**	.336**	.246*	.078	.082	1	.464**	.630**	.292*	.195
	Sig. (2-tailed)	.002	.001	.018	.460	.432		.000	.000	.004	.061
	N	93	93	92	93	93	93	93	93	93	93
WLB_02	Pearson Correlation	.249*	.079	.129	.147	.200	.464**	1	.466**	.264*	.285*
	Sig. (2-tailed)	.016	.450	.220	.160	.055	.000		.000	.011	.006
	N	93	93	92	93	93	93	93	93	93	93
WLB_03	Pearson Correlation	.181	.207*	.044	.094	.057	.630**	.466**	1	.131	.083
	Sig. (2-tailed)	.082	.046	.674	.370	.589	.000	.000		.210	.431
	N	93	93	92	93	93	93	93	93	93	93
NB_01	Pearson Correlation	.338**	.402**	.382**	.152	.113	.292**	.264*	.131	1	.597*
	Sig. (2-tailed)	.001	.000	.000	.146	.279	.004	.011	.210		.000
	N	93	93	92	93	93	93	93	93	93	93
NB_02	Pearson Correlation	.227*	.409**	.279**	.137	.100	.195	.285**	.083	.597*	1
	Sig. (2-tailed)	.029	.000	.007	.190	.340	.061	.006	.431	.000	
	N	93	93	92	93	93	93	93	93	93	93

Atl_01	Pearson Correlation	.208*	.285**	.185	.019	.118	.162	.042	.010	.350*	.505*
	Sig. (2-tailed)	.045	.006	.077	.858	.261	.122	.691	.922	.001	.000
	N	93	93	92	93	93	93	93	93	93	93
Atl_02	Pearson Correlation	.283**	.262*	.152	.124	.128	.135	.017	-.053	.344*	.239*
	Sig. (2-tailed)	.006	.011	.149	.236	.220	.196	.874	.611	.001	.021
	N	93	93	92	93	93	93	93	93	93	93
Cost	Pearson Correlation	.196	.510**	.385**	.035	.214*	.373**	.137	.249*	.297*	.240*
	Sig. (2-tailed)	.060	.000	.000	.741	.040	.000	.189	.016	.004	.021
	N	93	93	92	93	93	93	93	93	93	93
prom_01	Pearson Correlation	.135	.299**	.281**	-.113	.053	.322**	.127	.180	.207*	.272*
	Sig. (2-tailed)	.195	.004	.007	.283	.616	.002	.223	.085	.046	.008
	N	93	93	92	93	93	93	93	93	93	93
prom_02	Pearson Correlation	.195	.353**	.158	.140	.169	.136	.055	.093	.139	.334*
	Sig. (2-tailed)	.061	.001	.133	.180	.105	.193	.601	.374	.183	.001
	N	93	93	92	93	93	93	93	93	93	93

2. Exploratory Factor Analysis

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Entre_opr	3.86	1.107	95
Tech_adap01	3.59	.995	95
Tech_adap02	3.59	1.016	95
Prod_01	4.45	.665	95
Prod_02	4.53	.712	95
WLB_01	3.61	.937	95
WLB_02	3.66	1.017	95
WLB_03	3.59	1.087	95
NB_01	4.24	.896	95
NB_02	4.22	.788	95
Atl_01	3.79	.824	95
Atl_02	4.03	.818	95
Cost	3.97	1.036	95
prom_01	3.62	1.033	95
prom_02	4.17	.753	95

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Bartlett's Test of Sphericity	Approx. Chi-Square	462.270
	df	105
	Sig.	.000

Communalities

	Initial	Extraction
Entre_opr	.310	.278
Tech_adap01	.477	.456
Tech_adap02	.332	.275
Prod_01	.634	.999
Prod_02	.620	.530
WLB_01	.539	.702
WLB_02	.398	.324
WLB_03	.473	.597
NB_01	.502	.399
NB_02	.557	.424
Atl_01	.446	.408
Atl_02	.360	.286

Cost	.426	.340
prom_01	.301	.269
prom_02	.309	.219

Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.316	28.771	28.771	3.742	24.945	24.945
2	1.823	12.152	40.924	1.455	9.702	34.648
3	1.724	11.495	52.418	1.308	8.722	43.370
4	1.237	8.245	60.663			
5	.975	6.500	67.163			
6	.885	5.899	73.062			
7	.673	4.487	77.549			
8	.642	4.277	81.826			
9	.581	3.875	85.701			
10	.524	3.493	89.195			
11	.450	2.999	92.194			
12	.401	2.671	94.865			
13	.319	2.126	96.991			
14	.277	1.847	98.838			
15	.174	1.162	100.000			

Factor Matrix^a

	Factor		
	1	2	3
Tech_adap01	.669		
NB_01	.600		
NB_02	.581		
WLB_01	.571		.468
Cost	.552		
Tech_adap02	.512		
Entre_opr	.509		
Atl_01	.484		-.412
Atl_02	.422		
prom_01	.419		
prom_02	.417		

Prod_01	.445	.846	
Prod_02	.439	.559	
WLB_03			.586
WLB_02			

Extraction Method: Principal Axis Factoring.^a

a. Attempted to extract 3 factors. More than 25 iterations are required. (Convergence=.003). Extraction was terminated.

Rotated Factor Matrix

	Factor		
	1	2	3
NB_02	.638		
Atl_01	.637		
NB_01	.594		
Tech_adap01	.566		
Atl_02	.521		
Cost	.493		
prom_02	.459		
Tech_adap02	.453		
prom_01	.450		
Entre_opr			
WLB_01		.805	
WLB_03		.771	
WLB_02		.547	
Prod_01			.998
Prod_02			.706

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 5 iterations.

Factor Transformation Matrix

Factor	1	2	3
1	.787	.477	.392
2	-.156	-.460	.874
3	-.597	.749	.287

3. Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.815	15

Item Statistics

	Mean	Std. Deviation	N
Entre_opr	3.86	1.107	95
Tech_adap01	3.59	.995	95
Tech_adap02	3.59	1.016	95
Prod_01	4.45	.665	95
Prod_02	4.53	.712	95
WLB_01	3.61	.937	95
WLB_02	3.66	1.017	95
WLB_03	3.59	1.087	95
NB_01	4.24	.896	95
NB_02	4.22	.788	95
Atl_01	3.79	.824	95
Atl_02	4.03	.818	95
Cost	3.97	1.036	95
prom_01	3.62	1.033	95
prom_02	4.17	.753	95

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Entre_opr	55.06	45.251	.463	.802
Tech_adap01	55.34	44.375	.604	.791
Tech_adap02	55.34	46.056	.455	.802

Prod_01	54.47	50.060	.305	.812
Prod_02	54.40	49.306	.355	.809
WLB_01	55.32	45.878	.521	.798
WLB_02	55.26	47.409	.352	.810
WLB_03	55.34	47.268	.329	.813
NB_01	54.68	46.069	.534	.797
NB_02	54.71	47.231	.509	.800
Atl_01	55.14	48.056	.406	.806
Atl_02	54.89	48.627	.357	.809
Cost	54.96	45.168	.512	.798
prom_01	55.31	46.938	.379	.808
prom_02	54.76	48.845	.376	.808

4. Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Entre_opr	3.86	1.101	96
product improvement	4.4844	.63847	96
Worklife balance	3.6250	.83105	96
Technicality	3.9144	.56044	96

Correlations

		Entre_opr	product improvement	Worklife balance	Technicality
Pearson Correlation	Entre_opr	1.000	.319	.312	.379
	product improvement	.319	1.000	.131	.250
	Worklife balance	.312	.131	1.000	.296
	Technicality	.379	.250	.296	1.000
Sig. (1-tailed)	Entre_opr	.	.001	.001	.000
	product improvement	.001	.	.102	.007
	Worklife balance	.001	.102	.	.002
	Technicality	.000	.007	.002	.
N	Entre_opr	96	96	96	96
	product improvement	96	96	96	96
	Worklife balance	96	96	96	96
	Technicality	96	96	96	96

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485 ^a	.235	.210	.979

a. Predictors: (Constant), Technicality, product improvement , Work life balance

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.116	3	9.039	9.436	.000 ^b
	Residual	88.123	92	.958		
	Total	115.240	95			

a. Dependent Variable: Entre_opr

b. Predictors: (Constant), Technicality, product improvement , Worklife balance

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.886	.919		-.964	.338
	product improvement	.391	.163	.227	2.403	.018
	Work-life balance	.271	.127	.205	2.141	.035
	Technicality	.514	.192	.262	2.673	.009

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions	
					product improvement	Worklife balance
1	1	3.942	1.000	.00	.00	.00
	2	.035	10.576	.02	.09	.94
	3	.014	16.568	.00	.53	.05
	4	.008	21.849	.98	.39	.01

Appendix E: IRB Approval

CASE #2019-2020-054



To: Gihan Aboutaelb
Cc: Mariez Wasfi
From: Atta Gebril, Chair of the IRB
Date: Jan 15, 2020
Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "Women Entrepreneurship and Digital Solutions: The Case of Egypt" and determined that it required consultation with the IRB under the "expedited" category. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

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

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

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

Thank you and good luck.

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

Dr. Atta Gebril
IRB chair, The American University in Cairo
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