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

**Flexible Working Practices for Educated Egyptian Women
in the Digital Era:
A Study on Telework during the COVID-19 Pandemic and
Its Potential to Reduce Gender Gap**

**A Thesis Submitted to the Department of Public Policy and
Administration**

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

Submitted by:

Sarah Sherif El Ashry

Supervised by:

Dr. Shahjahan Bhuiyan

Fall 2021

Dedication

I thank God for giving me the opportunity and strength to complete this journey.

To my beloved mother, Nahla El Ghanam, you are my true support and blessing, I could never have done all this without you. Thank you for everything you did throughout this journey, I am here today because of you. Thank you for taking care of Rozana and Deyala so I can study and attend my classes. And for dedicating all your time for my happiness. I love you!

To my dearest dad, Sherif El Ashry, thank you for teaching me how hard work and dedication pays off, this journey could not have been completed without your gracious support. Your eagerness to learn and excel in your work taught me a lot.

To my love, my husband, Ahmed Abou Samra, thank you for your encouragement, patience, and for believing in me. I thank god for having you next to me growing old together. You will always be my love, best friend and companion.

To my two beautiful daughters, Rozana and Deyala, you are my source of inspiration. I hope one day you feel proud of your mother. And I hope this research will help you, and other women, achieve your goals and empower you to never give up on your dreams.

To my sister and best friend Sohaila, may we witness all our success milestones together, thank you for supporting me and keeping up with my complaints. I am grateful for your presence and your guidance.

To my dearest grandmother, your prayers and words mean the world to me.

To my uncles Ibrahim, Ashraf, and Ihab El Ghana, you have been supporting me since the start of my educational journey I am forever grateful.

To my in-laws, Aunt Gehan and Uncle Mahmoud thank you for your presence and for your support.

To Passant, my life time friend, thank you for being by my side may we always support each other.

To Esraa Aboelwafa, my best friend, thank you for your encouraging words.

To Alaa Tarek, the one that taught me that distance is never a burden, thank you for being my loyal friend forever.

To Yasmine, thank you for being a true friend and for encouraging me every time I felt down. May we stay true and best friends forever.

Thank you my dear Mariam Abousayed for your help, and continuous support. Your presence means a lot to me.

Thank you Passant Elwy for your kind heart, nonstop support and guidance.

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This is to all strong women!

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List of Abbreviations/ Acronyms

AI----- Artificial Intelligence
CAPMAS-----Central Agency for Public Mobilization and Statistics
MCIT----- Ministry of Communication & Information Technology
Egypt----- The Arab Republic of Egypt
F2F----- Face to Face
FWC----- Family Work Conflict
GDP-----Gross Domestic Product
HBW----- Home-Based work
ICT-----Information and Communication Technology
ILO---- International Labor Organization
IT----- Information Technology
ITIDA----- Information Technology Industry Development Agency
KPI---- Key Performance Indicators
NCWIT----- National Center for Women Information Technology
NCW-----National Council for Women
OECD---- Organization for Economic Co-operation and Development
O*Net-----Occupational Information Network
SDGs-----Sustainable Development Goals
SDSs----- Sustainable Development Strategies
SPSS-----Statistical Package for the Social Sciences
UNDP---- United Nations Development Program
UN----- United Nations
USAID-----United States Agency for International Development
VR-----Virtual Reality
WFH---- Work from Home
WFC----- Work Family Conflict
WLB----- Work-Life Balance

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Abstract

Telework has recently gained popularity around the world, a trend that saw significant growth with the emergence of the COVID-19 pandemic. Egypt is one of the many countries that adopted this new approach in an attempt to facilitate social distancing policies. This allowed more working mothers in Egypt to experience telework practices for the first time and be able to report their experience. These circumstances have presented a great opportunity to test its simultaneous application across different sectors throughout Egypt. Therefore, it is important to reflect on the adoption of telework during the COVID-19 pandemic. This study aims to examine the effects of applying flexible work techniques, telework specifically, on educated mothers in Egypt as a means to solve the persistent conflict between the responsibilities of motherhood and professional career life. Moreover, the study highlights the importance of Information and Communication Technology (ICT) and proper regulations to ensure the successful implementation of telework and to potentially achieve the following outcomes, including a reduction in unemployment rates, the empowerment of women, and shrinking the gender gap. Primary data were collected through qualitative one-to-one semi-structured interviews with mothers and managers. The findings have been divided into three main themes following the conceptual framework of the study. This includes the drivers that act as motivators for adopting telework. These include variables such as demographics, processes such as technology, and outcomes including a decrease in unemployment. The study suggests a number of recommendations that address the interests of stakeholders; including mothers, organizations and the government.

Keywords: Women, Mothers, Telework, Technology, Employment, ICT, Egypt

Chapter One

1.Introduction

Women face unique challenges to enter the labor force and maintain their careers as a result of the responsibilities they bear from marriage, to pregnancy and childcare. According to Mandal (2013, p.2), “in almost every society and in every sphere of life women assume unequal positions and statuses; thus it is necessary to empower them by providing equal opportunities”.

The unemployment rates among educated Egyptian women are alarming, with 37% of female university graduates remain unemployed (World Bank, 2017). According to a report by the United Nations Development Program (UNDP), women in Egypt are denied the same work rights as men, despite an increase in the number of women entering the labor force than in previous years (UN Women, 2020). Women’s empowerment through financial inclusion and employment has become a component of the national strategy in Egypt, to reduce the female unemployment rates and increase formal labor force participation (Egypt Vision 2030, 2016).

The above information supports the fact that women are facing inequality when it comes to the labor market. Mothers usually find it challenging to maintain a career alongside their other commitments. According to the National Center for Women Information Technology in the USA (NCWIT), around 56% of women tend to leave their technical jobs mid-career (NCWIT, 2016). Commuting time can be very difficult for women with domestic and childcare responsibilities (Lim & Teo, 2000). Research has suggested several solutions to overcome these problems, including adopting new flexible approaches. Thanks to the availability of new working techniques such as telework and remote working, which seem to hold a key toward equality for women with responsibilities and young children, women are increasingly encouraged to enter the labor force (Chung & Lippe, 2018).

Telework allows women to accomplish their job tasks without having to leave their homes and choose to work during hours when they are most productive (Lim & Teo, 2000). New technologies have had a significant influence on the emergence of new concepts such as remote working, teleworking, or working from home (Grant et al., 2013). The recent technological

revolution and the advancement of artificial intelligence (AI), robotics, virtual reality (VR), and biotechnology (World Economic Forum, 2016) can be used to deliver telework tasks effectively.

The limitless development of technology and globalization has generated interest in studying the effect of new alternative work arrangements, such as remote and teleworking (Eraso & Erro, 2020). These days, remote working and other flexible work approaches are gaining more acceptance within different sectors. Moreover, the current coronavirus (COVID-19) pandemic has presented an exceptional opportunity to study remote work practices and identify the technological gaps (O’Leary, 2020). With the emergence of the pandemic, paid work and child care are witnessing dramatic reconfigurations due to the new rules dedicated to reinforcing social and physical distancing and applying safety measures. As a result, many workers, including public sector employees, had to change the location of—and adapt to new scopes within—their jobs (Nash & Churchill, 2020). Since the nature of remote working has changed from being a voluntary flexible choice for some employees to a compulsory requirement for nonessential work worldwide, the whole work design concept has changed accordingly (Wang et al., 2020). The lockdown forced investment in many industries that adopt teleworking or where it is possible to implement this approach and use remote technology (Guyot & Sawhill, 2020).

Technology, among other factors including globalization, have had a significant role in influencing the speed and nature of work (Wilkinson et al., 2017). The advancement in ICT opened new doors, allowing flexibility of choice in reference to when and where work is conducted. Flexibility is a very important variable of telework, if employees are free to choose the time and place of work, then both the temporal and physical borders separating work and family become more flexible (Clark, 2000). When both work and family domains have mutual interests and responsibilities, the borders between them are more penetrable. Theories such as integration and inter-role conflict, discussed later on in the conceptual framework, articulate the importance of flexibility and penetrable borders to overcome conflicts that arise between the different domains (Bello & Tanko, 2020). Flexibility in work can lead to positive and negative effects on employees, their families, employers, and society at large (Ray & Pane-Cryan, 2021). For example, flexibility is correlated with the ability of workers to address their personal and familial needs. Moreover, it “contributes to job engagement, satisfaction, and the well-being of employees,” (Ray & Pane-Cryan, 2021 p.3).

The workforce is experiencing a remarkable change due to the recent emergence of a new generation of techno-literate workers (Belanger et al., 2014). Scholars argue that many benefits will emerge as a result of this new workforce structure. With the accessibility of good internet and the global shift toward telework, new opportunities are created and greater gender equality is achieved (ILO, 2020). This thesis focuses on women, specifically working mothers or those attempting to work, in white collar jobs that require a high level of skill and offer higher wages. This demographic was selected because white collar employees are more likely to be technologically literate. The study targets both the public and private sector employees, the goals of both the public and private sectors tend to differ and therefore the working strategy of each sector may differ accordingly (Khan & Khandaker, 2016).

The objectives of this thesis are to focus on performing a detailed study addressing a) telework as a flexible working method that can help educated mothers succeed in the labor market; b) factors that affect the implementation of this approach by mothers including the recent pandemic; and c) the outcomes that working mothers will benefit from.

1.1 Research Framework:

1.1.1 Problem Statement:

Women are often deprived of the right to enter, or continue their jobs in, the labor force due to their multifaceted roles as caregivers, family managers, and their household responsibilities. These gender roles set by society become a serious challenge for women (ILO, 2018). This is particularly the case in Egypt, where cultural expectations of women tend to place additional pressure on those wishing to work. According to the ILO, among women in Africa and the Arab world, unemployment rates surpass 16% (ILO, 2018).

There is a research gap in identifying proper up-to-date mechanisms that can help overcome this problem. After the emergence of the coronavirus pandemic in 2019, new work arrangements, including telework, appeared to minimize the social and economic consequences of lockdown. This study focuses mainly on the phenomena of telework and remote working in particular as new technology-supported flexible work arrangements. Since the outbreak of the coronavirus, the number of studies on telework and remote work have noticeably increased. However, upon examination of the literature, it was found that women and mothers are often

overlooked in these studies, creating a serious gap. The available literature, including previous research and articles, focuses mainly on the analysis of separate factors such as technology, gender, marital status, and parenthood (Adisa et al., 2016). This isolated approach led to incomplete results. The existing body of knowledge pertaining to remote working has been generated from the perspective of this practice as a luxury or infrequent approach, occasionally used by private businesses (Wang et al. 2021). Previous literature also focused on theories relating to WLB, job satisfaction and wellbeing (Clark, 2000). However, studies on working mothers in general, and in Egypt in particular, do not exist. Moreover, the relationship between telework, the facilitation of labor force participation and a decrease in the gender gap does not exist in previous literature about Egypt.

1.1.2 Purpose

The study's primary purpose is to identify how the availability of flexible working techniques, supported by advanced technology, create new opportunities for educated mothers in Egypt (especially during the coronavirus). Moreover, it is intended to be a resource for policymakers to support work on new policies to provide working mothers with suitable working conditions. The study will aid in filling the research gap by highlighting the role of technology in supporting telework for working mothers. Another main purpose is to identify the outcomes, effects, benefits, advantages, and disadvantages of adopting flexible work—known as teleworking—for our target segment (educated mothers). Educated mothers targeted in this study are those who completed their university, Masters, or PHD degree. These mothers can be working in the public or private sector and their age would be from 20 to 45 year-of-old. Moreover, the sample includes mothers who are currently working or planning to re-enter the labor force. They can be working in the private or the public sector. This study will meticulously link the relationship between technology and different factors, including gender, marital status, parenthood, and job characteristics, to the evolution of telework and how it can be used to encourage more women to enter the labor market.

1.2 Research Questions:

1.2.1 Main Question:

- In light of current circumstances, how can new technology support flexible working techniques, facilitate the presence of educated mothers in the labor force and decrease their unemployment rate?

1.2.2 Sub Questions:

- a. How telework, flexible work, and home-based work help women overcome the challenges posed by the responsibilities they face?
- b. How has COVID-19 impacted the utilization of telework for working mothers?
- c. What are the factors that affect the implementation of telework practices and their outcomes?
- d. How can policymakers, managers, and employers take advantage of the current situation to decrease the gender gap and create new job opportunities for mothers?

1.2.3 Structure of the Thesis:

Chapter one: Introduces the research topic, problem statement, purpose of the research and the research gap.

Chapter two: Introduces the history and background of the telework approach, Egypt's Vision 2030 in reference to women's employment and empowerment as well as identifying the labor laws in Egypt and internationally.

Chapter three: Includes a deliberate review of the literature available on the topic with a detailed explanation of the factors affecting and motivating following the telework technique. The author also explains how telework is affected by the current COVID-19 situation in Egypt and accordingly the current events affected mothers in the labor market.

Chapter four: Identifies a conceptual framework that guides the research to identify how telework can aid educated mothers in Egypt to enter and proceed in the labor market.

Chapter five: Explains the research methodology, including the design, sample selection, data analysis approach, the study limitations, and the ethical considerations.

Chapter six: Analysis the findings of the empirical data collected by the author according to themes aligning with the literature.

Chapter seven: Presents the final conclusion to the research and also suggests recommendations.

Chapter Two

2. Background

2.1 Telework History and Background:

In the past few decades, technology and the latest ICT innovations have enabled new flexible work mechanisms to emerge, including remote working and work from home (WFH). WFH cannot be considered a new or recent approach, as it existed long before the coronavirus pandemic. Researchers have tied the emergence of telework to the 1973 oil crisis and its impact on the economy (Eroso & Garces, 2020). Due to the rise in fuel cost, the cost of daily commuting to and from work increased, and the telework concept emerged (ILO, 2016). The concept of WFH was mentioned initially by Nilles in 1975, where it was referred to as "Telecommuting" or "Telework" (Messenger & Gschwind 2016). It is also referred to as "work from home," e-work, remote work, distance work, or flexible work (ILO, 2016).

Garrett and Danzinger (2007) argued that telework and telecommuting are usually used interchangeably. In contrast, other schools of thought argue that telework is a broader concept that generally encompasses four dimensions: work location, IT, time distribution, and diversity of employment. There are many forms of flexible work, it can be full-time, part-time, formal, or informal (Potter, 2013).

Part-time jobs are usually not very satisfying for most women, as expressed by Anxo et al. (2007) and Yerkes (2009). This type of work is mainly associated with lower wages, poor quality of work, and enormous career sacrifices, leaving many female workers with a considerable gender gap in both wages and job status. Another mode of flexible working that is widely used internationally is "annualized hours;" explained by Chung and Horst (2017) as having working hours that are not defined or should be fulfilled during a specific day or week. There is also the concept of "compressed hours," where the employee has to work full time hours but in fewer days (Chung and Horst, 2017). Finally, there is "Teleworking" or HBW, which is our main focus for this study, where employees are allowed to work outside of their office and can easily decide to work from home or any location they find suitable.

Teleworking or remote working is mainly viewed as an approach that can help organizations improve productivity and employee satisfaction; reducing operational costs, turnover, absenteeism, work-related stress, environmental pollution and above all work-family conflict (Kowalski & Swanson, 2005). In the book *Work and Family in the E-work Era* (Cullen et al., 2003), the authors mentioned that there has been a noticeable increase in part-time jobs in recent decades. The author predicts that full-time employment will diminish over time and become the exception. It is argued by some researchers that even before the start of the 2019 pandemic—and as a result of the ongoing changes in work, including those facilitated by the digital era—teleworking became a standard operating approach for many institutions around the world (The Legal Framework, 2019). Telework was being used in the past to reduce travel expenses and environmental issues (Kowalski & Swanson, 2005), now after the pandemic it is used to decrease the gender gap and ensure safety.

2.2 Egypt Vision 2030

In an attempt to improve the quality of life for Egyptian citizens, maintain inclusive sustainable development and guarantee balanced regional development, Egypt created the Sustainable Development Strategies (SDS) (Egypt Ministry of Planning, 2016). The SDS represent a road map to maximize the competitive advantage and improve the lives of all Egyptians. A number of pillars were identified to achieve the SDS. Using goals, KPIs, programs and projects to reach the goals and strategies of Egypt, Vision 2030 is based on a number of pillars identified under the umbrella of three main dimensions. These include: 1) Social Dimensions, 2) Economic Dimensions and 3) Environmental Dimensions (p.7). In this thesis, the main focus is on the social and economic dimensions. Within the economic dimension, pillar number three—relating to knowledge, innovation and scientific research—is relevant to this research (p.12). While the fifth and seventh pillars in the social dimension—relating to education, training and social justice—are relevant. Unfortunately, according to recent statistics technological illiteracy among females is still present and the use of technology and computers is still low (CAPMAS, 2016). Therefore, there should be more focus on education and training for females to reach the SDS and achieve the needed KPIs. The figure below indicates the disparities between females and male's computer usage in Egypt in both urban and rural areas.

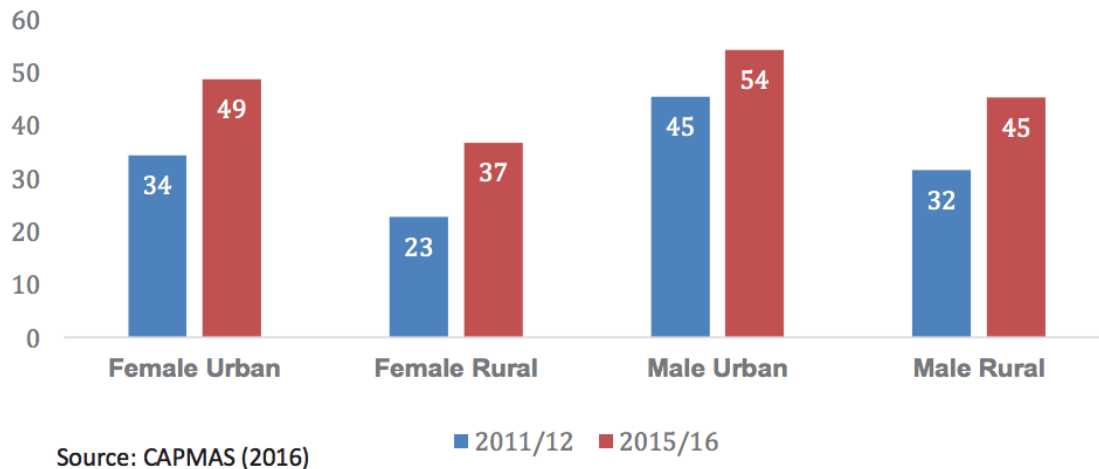


Figure (1) Use of computer by residence and gender

Source: CAPMAS (2016)

2.3 International Labor Laws

The International Labor Organization (ILO) implemented a set of laws related to women's employment. Among other aspects, they address gender equality, pay equity and maternity protection (ILO, 2004). These laws include a maternity protection agreement, a convention for workers with family obligations, and laws to combat employment discrimination. These laws are used to protect women, ensure their presence in the labor force and safeguard their ability to compete with their male counterparts.

2.4 Labor Laws for Women in Egypt

Apart from the laws established by the ILO, there are national laws enshrined in the Egyptian constitution and created by the National Council for Women. The following data is based on an article published on the official website of the Egyptian National Council for Women (2016). The provisions represented in this section are part of the labor law No.12 of the year 2003 emphasizing the protection of women in the labor market. First of all, female employees are entitled to three months of paid maternity leave for each child up to three children, conditional on social insurance coverage. In addition, females are also given the opportunity for unpaid child care leave if employed in organizations with more than fifty employees. Nursing employees are given two and

half hours daily, and starting in the sixth month of pregnancy the number of working hours are decreased. Flexible work is not mandated by law, however it can be agreed upon by the employer and employees. These laws may help women overcome the burdens and barriers they tend to face in Egypt including inequalities in the labor market, marriage responsibilities, conspicuous unequal division of child care, household responsibilities, and costly child care services.

Although these laws exist to encourage the participation of women in the labor force, the rate of female unemployment is unfortunately still very high in Egypt. While studying the factors that hinder women's private sector employment in Egypt, researchers have identified marriage as one of the constraints to employment in Egypt (Constant et al., 2020). Around 30% of married females are less likely to participate in the labor force than unmarried (p. 13). The figure below shows the most recent statistics for women's labor force participation in Egypt.

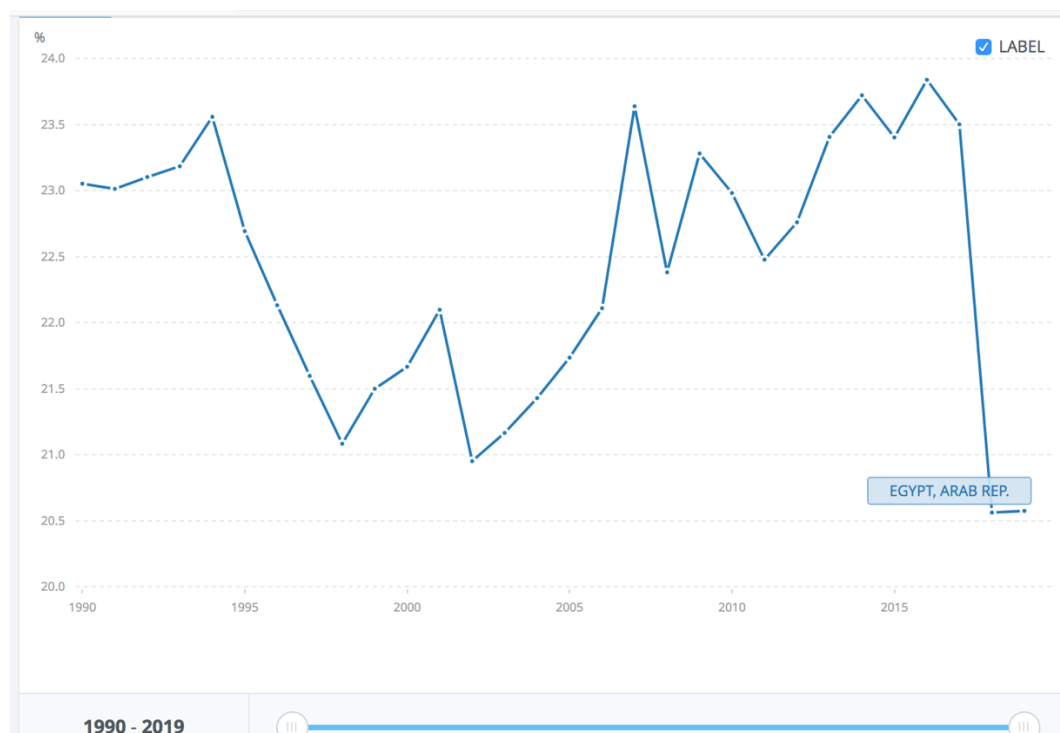


Figure (2) Female labor force participation in Egypt from 1990 to 2019

Source: World Bank, 2020

In Egypt and worldwide, there are two major dimensions affecting the occupational world for women. These include 1) division of labor by gender and 2) norms and stereotypes shaping gender roles, which are restricting for women based on perceived characteristics and capabilities in the labor force market (ILO, 2017).

Despite the improvement in education and enhancement of skills for women, the abovementioned dimensions foster inequality and discrimination. A recent report by UN Women (illustrated in figures (3) and (4)) communicated that female labor force participation was estimated to be around 28.9%, with only 19% having a university degree and 39% secondary school education (UN Women, 2016). This helps to explain the low labor force participation rates of women in comparison to men.

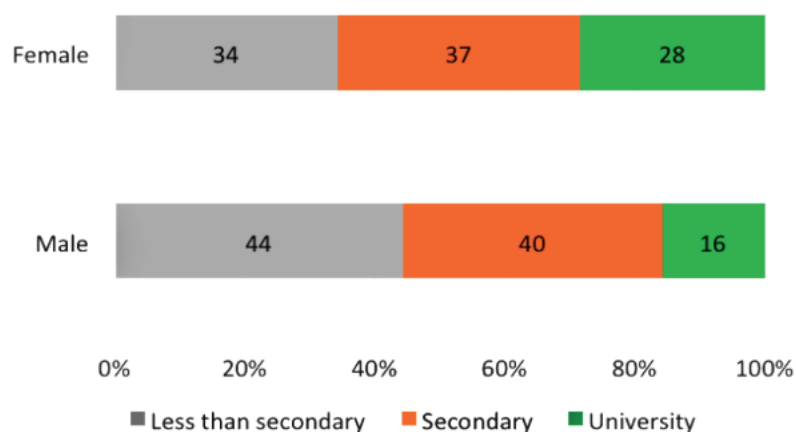


Figure (3): Distribution of labor force by gender and education in 2016

Source: CAPMAS (2017) as cited by UN Women (2018)

Figure 2.9 Female University Graduates and Female Unemployment Rate, (%) 2005-2015.

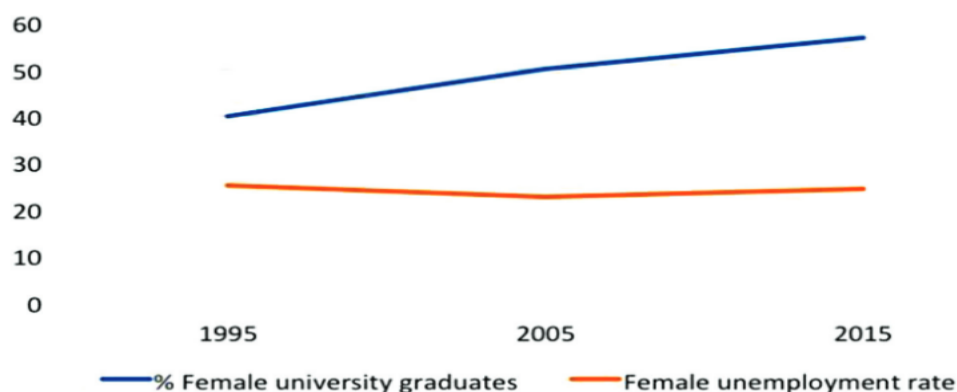


Figure (4) Female university graduates and female unemployment rates from 1995 to 2015

Source: UN Women (2018)

The table below shows suggested Key Performance Indicators (KPIs) regarding the economic aspect of Egypt Vision 2030. The indicator number 11 in this table shows the percentage of labor force participation of women in 2016 when this report was issued, then 2020 and 2030 (projected). A rise to 35% is expected by 2030

S.N	Indicator	Current value	2020 target	2030 target
Strategic results				
1	Real GDP growth rate (%)	4.2	10	12
2	GDP per capita (USD)	3436.3	4000	10000
3	Share of real GDP in real world GDP (%)	0.21	0.4	1
4	Poverty headcount ratio at national poverty lines (%)	26.3	23	15
5	Percentage of population below the extreme poverty line (%)	4.4	2.5	0
6	Public debt to GDP ratio (%)	92.7	85.7	75
7	Budget deficit as percentage of GDP (%)	11.5	7.5	2.28
8	Total reserves in months of good imports (months)	3.2	6	10
9	Inflation rate (%)	11.8	8	3-5
10	Unemployment rate (%)	12.8	10	5
11	Female labor force participation (%)	22.8	25	35
12	Total fertility Rate (children per women)	3.5	3.3	2.4
13	Macroeconomic environment indicator (Rank)	137	100	30
14	Ease of doing business index (Rank)	131	100	30
15	Global competitiveness index (Rank)	116	90	30
16	Manufacturing growth rate (%)	5	7	10

Table (1): KPIs for the economic dimension

Source: Egypt Vision 2030

Chapter Three

3. Literature Review

In this chapter, a review of existing literature that has contributed to the knowledge of this topic will be discussed. This section is based on past literature from journal articles, policy briefs, reports, and documents written by researchers and scholars. It will examine scholarship on flexible work, focusing on remote and telework in particular, identifying how this practice can affect the presence of women in the job market. This chapter will help explain how technology, the current pandemic, and other factors can facilitate the future of employment for working mothers in Egypt, and ultimately to improve their empowerment.

3.1 The New Normal

Although WFH is a longstanding and well-known concept, as explained in the previous chapter, recently it has gained more popularity due to the spread of the coronavirus (Shareena & Shahi, 2020). The pandemic was confirmed by the World Health Organization (WHO) as of March 2020, after the outbreak of the virus that took place in Wuhan, China, in December 2019 (Mostafa, 2021). Following the initial cases, the highly contagious virus quickly spread. Scholars suggest that globalization and mass travel are the main reasons behind the spread of the virus (Atkinson et al., 2020).

According to the WHO, as of July 2021, the number of infections had reached almost 184 million, with an estimated 5 million deaths worldwide (WHO, 2022). Therefore, this pandemic is seen by many researchers as one of the most challenging situations faced by the world recently (UNDP, 2020). This is because COVID-19 and the lockdown forced individuals to reconsider various practices, including work, leisure, basic daily tasks, and travel (Vyas & Butakhieo, 2020). Countries were also markedly impacted, especially from the economic standpoint.

As a result of the disastrous situation that took hold in 2019, governments forced citizens to abide by social distancing rules and self-isolation policies (Zhang et al., 2020). Consequently, the pandemic spurred the adoption of new working alternatives such as telework and WFH (Alon

et al., 2020). As cited by Zhang et al. in their article, “A work-life conflict perspective on telework”, telework was introduced as an "exogenous shock" to the current situation (2020). It is important to note that the unusual situation of the pandemic and the sudden widespread introduction of teleworking mechanisms can be used as a mass test for the pros and cons of this approach. This situation and the measures taken by governments may ultimately impact the working arrangements and the future of the job market in Egypt and the world (UNDP, 2020). Saving the economy and maintaining productivity were the main motives behind seeking alternative work arrangements (OECD, 2020). The quick response taken by many employers, shifting their organizational work to telecommuting to ensure the continuity of their businesses, is known as the "situation theory" (Felsted, Jewson & Walters, 2002 as cited by Jaiswal & Arun, 2020). The pandemic did not only affect private business; public servants have also been affected tremendously as they too had to change their work location, many of them forced to work remotely (Brick et al., 2020). Unfortunately, many public servants worldwide reported suffering from unmet needs, including resources and connectivity available at their remote workplace. Public sector workers also suddenly had to deal with more demands outside of work due to the closure of schools and daycares (Schuster et al., 2020). Among these duties are homeschooling and child care during working hours. Therefore, many scholars argue the importance of proper management by governments to improve and overcome these problems (Briones & Weber, 2020 as cited by Schuster et al., 2020). Adequate and safe remote workplaces, appropriate technical equipment, and training in a virtual context must be provided to workers (Bicker et al., 2020).

The post-Covid labor market will undoubtedly be affected as policymakers will work on increasing flexibility and decreasing work-family conflict (Lyttelton et al., 2020). Structural change within organizations, such as ministries and agencies, is predicted to occur, including hiring new calibers (Schuster et al., 2020).

3.2 The Nature of Work:

As mentioned in the previous section, a systemized structural change within organizations took place in response to the COVID-19 pandemic. Research suggests that the pandemic had a direct effect on the design of work, which denotes the responsibilities, activities and job tasks of each occupation (Wang et al., 2020). Millions of employees lost their jobs worldwide or found themselves furloughed due to the struggle some businesses faced

economically (Hodder, 2020). As a response to the pandemic, some occupations showed dramatic growth. These occupations included, most notably, e-commerce and social media (Hodder, 2020). On the other hand, some occupations temporarily diminished or reported a sudden decrease such as occupations offering leisure and entertainment (ILO, 2020). Perceptions about different jobs and occupations changed drastically as well. According to Alboraie et al., (2021) “Many short-term emergency measures will become a fixture of life,” (P.2). An example for this would be the recent development and dramatic growth in e-health and digital medicine, which includes online doctor consultations (Alboraie et al., 2021). Job types, as well as individual characteristics became very important to study and understand as they are currently associated with the effectiveness and success of new work design approaches. “It is highly likely that in the future, flexible working will become the norm rather than the exception in many jobs,” (Chung & Lippe, 2020 p.3). The change in the nature of work, allowing for more flexibility, can have make it possible for mothers to maintain their jobs after childbirth (Chung & Lipp, 2020). This is seen by many researchers as a way to overcome gender inequalities imposed by the culture and society. Unfortunately, even with the emergence of new work approaches that guarantee flexibility and help women overcome the challenges they face; women may face inequalities in telework implementation. Due to cultural norms, men are expected to use telework as a means of increasing productivity and acquiring better status, while women on the other hand are encouraged to use telework to maintain their domestic and childcare responsibilities mandated by the society (Chung & Lippe, 2020).

The nature of work may differ according to the sector, whether public or private. Since the literature suggests that each sector has its own goals, management style and tools, it is important to know the difference. Private firms are owned by stakeholders or entrepreneurs, while the public sector is often beholden to government bureaucracy and increased regulation (Khan & Khandaker, 2016). Adopting proven private sector management styles and tools is considered a way for public sector organizations to cope with the environment and ensure flexibility (Khan & Khandaker, 2016).

3.3 Effects on Working Mothers

The current spread of the coronavirus had a particularly severe impact on women in the labor market. Although the world has faced crises in the past, this case was different as a total

closure of schools and daycare centers took place (Alon et al., 2020). This had a significant impact on households with children of school age or younger. Furthermore, since child care and family responsibilities usually pertain to women, the COVID-19 crisis caused increased levels of job loss among women, as they tried to keep up with family and personal responsibilities (Mas & Pallais, 2019). Thus, working mothers are arguably most affected by new policies and regulations related to self-isolation and WFH.

Working mothers can be defined as women who combine a profession with being responsible for raising children (Poduval, 2009). Before the pandemic, only 40% of women were employed compared to 70% of men worldwide (ILO, 2020). This percentage does not include domestic workers and informal work. To get more acquainted with how telework can affect working mothers, it is essential to first understand women's employment patterns and how they are affected after childbirth (Chung & Horst, 2018).

Before the spread of the virus, WFH aided women in managing the constraints of their diverse roles as household and family managers, mothers, caregivers, and partners (Couch et al., 2020). Full commitment to work is always how looking professional is portrayed; being child-free or an “honorary man” is often how organizations perceive professionalism at work (Raddon, 2002). Mothers were more likely to adopt the telework approach to end the guilt and shame of being unavailable for their kids and homes, known as maternal guilt. Studies suggest that WFH is usually used as a coping mechanism or strategy to manage these feelings (Kreiner et al., 2009 as cited by Adisa et al., 2016). Coping has been defined as "an effort to create conditions that permit an individual to continue moving towards his/her desired goals, and usually, it is a response to a stressful experience" (Herbst et al., 2007 p. 57). Coping strategies are fundamental to learn and understand in this study, as they facilitate the relationship between work demands and family responsibilities and the role expressed by an individual. They also help remove the stress that plays a significant role in work-related decisions and leads to work-family conflict (Adisa et al., 2016).

Coping strategies may differ according to the structure of the family, economic conditions, and roles. The working patterns of women usually differ and are affected by different stages in life; including marriage, childbirth, number of children and their age, education, income, the availability of a partner, the availability of child care facilities, and occupational level (Chung & Horst, 2018).

Usually, working mothers are more likely to accept wage deductions in exchange for more flexible working hours (Lyttelton, Zang & Musick, 2020). Since the pandemic outbreak, many businesses have become more accommodating with respect to childcare and are more likely to respond to adopting more flexible work schedules and telework options in favor of their employees (Alone et al., 2020). Some of these changes might prove to be persistent in the future.

WFH and other flexible work arrangements are no longer considered a luxury; they are crucial to sustain productivity and decrease turnover rates (OECD, 2020). Historically, remote working has not been a commonly used practice (Kossek & Lautsch, 2018). Before the pandemic, it was associated with high-income earners and white-collar workers such as managers (Desiver, 2020, as cited by Wang et al., 2021). The new situation helped generalize the WFH concept (Wang et al., 2021). Although, according to Alone et al. (2020), the pandemic affected women differently, however, they believe that positive outcomes may result. The crisis has introduced some changes that could reduce gender inequality in the long run. Some scholars highlight that facilitating the participation and empowerment of women in the labor market using ICT, and thus reducing the gender gap, is a positive outcome (Maier & Nairr-Reicher, 2008 as cited by Ibrahim 2014).

With this information in mind, it is essential to investigate this new approach of online work culture during its highest adoption period to come up with plans, solutions, and outcomes (Molino et al., 2020).

3.4 The Case of Egypt

Although, as mentioned before, technology, among other factors, helped introduce the telework concept around the world, Egypt has unfortunately been one of the countries with the lowest percentage of remote working (Shareena & Shahid, 2020). This had to change in March 2020, when the WHO declared the coronavirus a deadly global pandemic (WHO, 2020). As elsewhere, the government in Egypt had to respond quickly, and a total lockdown ensued.

With the emergence of the coronavirus pandemic and the new social isolation policies, both the private and public sectors in Egypt had to respond to maintain their economic status (Kamal, 2020). Suspension of schools, universities, daycare facilities, and transportation was considered a must (Medhat & Kassas, 2020). People had to stay quarantined until mid-August 2020, when life gradually returned to normal with imposed curfews and great caution (Mostafa, 2021). Many public and privately-owned organizations allowed their employees to work remotely (mainly from

home in this case) to support physical distancing regulations leading to a dramatic change in the work landscape. Several platforms are currently in operation in Egypt allowing job seekers to connect with employers. One of these online platforms is known as Wuzzuf.com. This platform confirmed an increase of around 124% in remote working vacancies (Aravanis, 2020).

On May 30, 2020, the Information Technology Industry Development Agency (ITIDA), with the support of the Ministry of Communication and Information Technology (MCIT), unveiled a unique online training initiative in light of COVID-19 to scale up Egyptian youth's technological skills (ITIDA, 2020). The online training will take place through "Udacity," the well-known global online learning platform training the world's workforce for future careers. The training is composed of an eighteen-month scholarship available free of charge to 100,000 Egyptians to help them master the latest core technological skills for remote working and excel in future digital occupations. "The initiative is a part of the CIT Ministry's ambitious strategy to invest heavily in building the local talents and reinforce the country's huge and well-educated workforce," as explained by ITIDA (2020). In addition to this initiative, and as mentioned in the background section, the Egypt Vision 2030 proposed some technology and ICT related programs and projects supporting economic development in Egypt. They are listed as the following:

- I. Developing cloud computing
- II. Developing the digital community to enhance efficiency and transparency
- III. Developing ICT industries
- IV. The national project for high-speed internet
- V. Transform Egypt into a global digital hub

According to a report by UN Women in Egypt, the use of IT, computers, and exposure to digital media are believed to be among the most sought-after human capital capabilities of the 21st century (UN Women, 2018).

3.5 The Case for Egyptian Women

As for the case of Egyptian women, there remains evidence of regression in terms of women's empowerment, employment, and gender equality according to global rankings (Nazier & Ramadan, 2018), despite the confirmation by Minister of International Cooperation, Rania Al-Mashat, that "gender equality" and "women's economic empowerment" are at the heart of

Egyptian's programs (World Bank, 2018). An article published in *Egypt Today* mentioned findings from a 2020 report by the Ministry of International Cooperation, which stated that around 34 projects worth 3.3 billion US dollars were created in an attempt to target gender equality. Several "gender smart" policies and solutions have been imposed to improve economic growth in Egypt (World Bank, 2018). All of these policies are aligned with the United Nations (UN) Sustainable Development Goals (SDGs) and echo the national Sustainable Development Strategies mentioned previously in the background section of this research.

According to the Egypt Labor Market Panel Survey (ELMPS), factors that affect women's participation in the Egyptian labor force include women's access to education, age, household size and location, social norms, and lack of child care facilities (CAPMAS, 2014) despite the calls for correcting these issues by the National Strategy for the Empowerment of Egyptian Women 2030.

The National Council for Women (NCW) created a national strategy for women, including four main pillars focusing on political empowerment, economic empowerment, social empowerment, and protection against violence (World Bank, 2018). There are many benefits that the Egyptian economy would experience from an increase in the employment rate of women; the most important among them is the expected increase in Gross Domestic Product (GDP) by 34% (USAID, 2021).

Women in Egypt tend to prefer public sector occupations due to the common perception of a "good job" established by the public sector (World Bank, 2014). Around one in two female workers is employed in the public sector. These occupations can either be in the government or the public business sector (World Bank, 2018). The total number of female participants in the public sector was estimated to be around 6.6 million in 2016. Part of the reason for the desirability of public sector jobs is the ability to take maternity leave and claim child care benefits that might help them achieve the balance between work commitments and family obligations (UN Women, 2016). Another reason for choosing the public sector and being recognized as socially valued in Egypt is that public sector jobs "pertain to a culture of gender expectations" (Barsoum, 2018 p.2)

Even before the coronavirus, the labor force participation rate for women was low, especially in comparison to men, reaching only 43% in 2018 (World Bank, 2018). This makes Egypt rank very low in gender equity measures when compared to other countries. "A large proportion of women also experience long spells of unemployment that sometimes end with exit from the labor market instead of employment" (Barsoum, 2018 p.2)

According to the United States Agency for International Development (USAID), empowering women by allowing them to participate actively in the economy through employment is essential to promote economic growth in Egypt (USAID, 2021). The report issued by USAID highlighted several programs that are being tailored to encourage women's empowerment. A program known as the Workforce Improvement and Skills Enhancement (WISE) focuses on the development of skills through providing on-the-job training.

Recently, the government and several organizations have been working on providing women with empowerment and increasing their labor force participation. According to the Ministry of Planning & Economic Development (MPED), Egypt's Vision 2030 aims to promote several objectives to achieve the UN SDGs and reflect on the nation's long-term strategic plan. Women's employment and empowerment are reflected in objective number three, "competitive and diversified economy," which targets knowledge-based economic growth, increasing employment rates, and digital transformation (MPED, 2016).

3.6 Women's Employment Patterns and Gender Equity

Women's employment patterns usually tend to differ from their male counterparts. Alone et al. (2020) discussed that inequality is derived from the disproportionate share of housework duties, cleaning, and cooking in addition to child and elder care responsibilities. A lack of mobility and the increase of domestic responsibilities are two main challenges that women face in Egypt (Amin & Al Basussi, 2004). As a result of cultural norms, women after marriage face an increase in domestic work from 13 to thirty hours per week (Hendy, 2015) as cited by (Barsoum, 2018). Work life balance is usually seen as very hard for women (Kotb et al., 2012). In Egypt, marriage is considered a very crucial phase in a woman's life and is considered the major reason behind low labor participation (World Bank, 2014). These issues remain despite noticeable effort at setting laws that support and encourage the participation of women in the labor force in Egypt, such as Article 11 that "grants women the right to hold public posts and high management posts in the state ensuring that women are able to balance family duties with work requirements" (Egyptian Constitution). Most of the literature shows that women in Egypt still find it difficult to endure the consequences of participating in the market. "Women's position in the labor market is

interrelated with their family position and their ability to reconcile family and work obligations” (Barsoum, 2018 p.2)

After marriage childcare responsibilities begin to emerge. Motherhood is considered the second most important change in the life of women, and it changes the way they are perceived in the labor market and society (Poduval, 2009). Goulden et al. (2013) introduced the idea of the "baby penalty" to explain how childbirth haunts women at every stage of their careers (p. 66). Securing child care requires multiple arrangements and significant expenses, which can further complicate matters (Constant et al. 2020). Childbirth and reproductive choices may directly impact females' employment patterns. According to UN Women (2016), "women are less likely to be employed if they have many children". Being responsible for raising a child usually makes it very difficult for women as they have no time nor energy to enter the labor market, especially those with young children (Hosney, 2016).

The changes and challenges that women may face, in terms of the amount and intensity of responsibilities after marriage and children, result in a tendency for men to report more stable employment patterns than women (Steiber & Haas, 2012). The literature suggests a number of models and theories explaining the obvious change in employment patterns for women, which may contribute to gender inequality. An example of one of these models would be the “neo-classical model of specialization,” which articulates that since in some countries and cultures men have a higher income than their female colleagues, a reduction in women’s paid work takes place due to the increase in unpaid work including childcare (Becker, 1991). Another theory by Becker suggests that highly educated mothers are more likely to choose to remain in paid work because they may face higher costs when they leave the labor market. Gender roles are usually determined according to different variables, for instance, women’s employment behavior and intention to return to the workforce after childbirth differs according to family situation, number and age of children, existence of partner, and the gender attitude of both partners (Chung & Hors, 2017). Another significant variable is the availability of childcare services that are affordable and easy to access according to Chung and Hors (2017, p.52)

3.7 Family Situation

Empirical evidence suggests that women’s employment behavior tends to be affected by gender culture (Steiber & Haas, 2012). According to Steiber and Haas (2012, p. 347) mothers in particular are more likely to drop out of their careers or not join the labor market. Traditional

gender roles, from childcare to domestic un-paid work, seen culturally as “women’s work,” have major implications on their behavior. The literature suggests a number of different family employment and economic situations that may determine the employment patterns and behaviors of women. The new-traditional family for example is one of the well-known types across different countries and cultures, where the husband is viewed as the main breadwinner or the chief of the household and in this case the wife’s income is seen as secondary (Duxbury et al., 2007). Another type includes the double earner or dual-career partners where both parties hold career positions and usually both hold a high level of formal education and income (Duxburg et al. 2007). This type of family tends to report better identification of gender roles, and relate to each other’s goals and objectives.

3.8 Advantages and Opportunities of Telework

The advantages of teleworking are various and affect different stakeholders; including the employees, the employer, and the organization. Generally, for organizations, telework can decrease the total operational cost, improve the office space, improve firm performance, and decrease the turnover rate (Kowaiski & Swanson, 2005). Other advantages for the organizations and managers include extended employee workdays, reduced resource requirements, and increased productivity measures (Greenhill & Wilson, 2006, as cited by Brown et al., 2016). After the emergence of the coronavirus pandemic, telework exhibited a fundamental advantage as a mean to maintain health and avoid contact with the deadly virus. Apart from the benefits to organizations and employees, environmental and safety advantages seem to be among the key advantages of telework.

3.8.1 Advantages for Working Mothers

Teleworking and remote working are approaches that can help organizations improve different aspects of their operations. These improvements include "the increase in productivity and employees' satisfaction, reducing operational costs, turnover, absenteeism, work-related stress, environmental pollution and above all work-family conflict" (Kowalski & Swanson, 2005 p. 17).

Work-life balance (WLB) is also among the most significant advantages that are claimed to be achieved from WFH. WLB has been of great interest to many researchers in recent years.

However, there is no precise measure or definition in the literature for WLB (Brough and Kalliath, 2008). For instance, WLB is defined by Maxwell (2005) as "the equal time, satisfaction and involvement in each of the work and family spheres irrespective of the job demands, family demands, family structure, and financial pressure" (p.10). On the other hand, Brough and Kalliath (2008) suggested that balance is achieved only if an individual's energy, time and responsibilities are evenly divided across life roles.

As proposed by scholars, teleworking allows the individual to work whenever they want and at any place they find comfortable. The increased flexibility and autonomy provided by telework can help individuals schedule and manage both work and family duties simultaneously (Olson & Primps, 1984). Therefore, as described by Kossek et al. (2016), acquiring control over the place and time of work can be enormously helpful in minimizing work-family conflict and thus achieve WLB.

WLB for mothers can positively affect parenting, as mothers have more time to adjust their work demands according to their children's schedules and tasks and facilitate quality family time. Scholars assume that teleworking helps decrease separation anxiety between the mother and young children in their first year (Craig et al., 2007). Kelly et al. (2006) defined separation anxiety as the negative symptoms that appear on a child when being separated from his caregivers or parents.

As denoted by Dooley (1996), telework can allow people with child care responsibilities to participate in work instead of facing the restrictions of on-site work participation.

Wage differences between male and female workers are also a very important aspect related to gender equality, and embracing WFH policies may help reduce the gap (Angelica & Profela, 2020).

3.8.2. Disadvantages and Challenges of Telework

Although telework seems to provide working mothers with advantages and opportunities to help them excel in their careers, this approach has its challenges and disadvantages. First, some general disadvantages discourage many organizations and managers from following this approach. Restrictions relating to proper monitoring, surveillance, presence, and visibility are vital challenges for many managers and employers (Felstead et al., 2003). Many managers before the pandemic were not willing to implement telework due to anxiety about the outcome (Wataad & Will, 2003, as cited by Brown et al., 2016). Limited access to computers, internet connectivity, and electricity supply in developing countries is also a significant challenge (Baker et al., 2006). The unavailability of proper technology for monitoring and surveillance, particularly in developing countries, may encourage moonlighting and corruption. Another very crucial challenge that teleworkers usually face is the gap in digital readiness. Most teleworkers reported suffering from social isolation and a lack of professionalism due to the absence of daily social F2F interactions with other employees (Baker et al., 2006). The household size (discussed later in the demographic section) is considered an immense challenge; many teleworkers reported that among the barriers affecting WFH and its practicality is having small homes, as they find it difficult to concentrate and focus on their work tasks (ILO, 2020).

Other challenges and disadvantages teleworking women may face as a result of adopting this approach include mixing their professional and personal lives, especially with intensifying child care needs and house chores for WFH mothers. This can largely affect women's productivity and career performance, leading to more gender inequality (ILO, 2020). Many teleworkers also suffer from role conflict problems. Zhang et al. (2020) explained that the role conflict theory usually takes two directions. The first is known as the Family to Work Conflict (FWC), where family interferes with work; and the second is the Work to Family Conflict (WFC), where work interferes with family. Although before the pandemic many women used telework as a compromising medium to shift between multiple roles, the case changed after the lockdown and school closure as mothers had to deal with more family, professional and social demands (Couch, O'Sullivan & Malatzki, 2020).

Telework seems to contribute to the concept of a 24/7 work pattern where employees are always expected to be available and reachable, even during the evening time, outside working hours, and on the weekends (Manokha, 2020).

To effectively solve challenges and overcome teleworking disadvantages that are facing society, scholars suggest that human resources and proper financing should be taken into consideration (He, Zhang & Li, 2021). Effective human resource management can ensure the availability of an appropriate safe remote workplace by providing employees with the needed training and technical equipment (Bicker et al., 2020). Lamond et al. (2003) focused on the area of people management, known as HR management, and their role in the successful implementation of telework by selecting candidates, training teleworkers, and investing in ICT-supported systems to overcome any challenge. Governments also have a significant role to play in overcoming the challenges and disadvantages of telework. The faster the government responds to challenges, the sooner working mothers can get on with their jobs (ILO, 2021).

3.9 Factors Affecting the Adoption and the Process of Telework

3.9.1 Technology

Many researchers have identified technology as one of the critical factors affecting the success and adoption of telework. Allen et al. (2015) identified technology as one of the two fundamentals of telework. Technology aided in the transition to telework processes and led to a dramatic cost drop-off (White, 2020). Digital technology burgeoned during the COVID-19 pandemic as a way to cope with the damage that the pandemic brought to our lives (O'leary, 2020). What is significantly different about this outbreak is that it is considered the first to happen with the backdrop of extraordinary developments in ICT (Okuda & Karazhanova, 2020, as cited by Jaiwsal & Arun 2020).

Governments worldwide imposed social and physical distancing mandates to decrease the spread of the virus; thus, the role of digital technology increased, becoming ubiquitous, and making it easier and less costly for people to follow these regulations (Atkinson et al., 2020).

Since the spread of the virus, maintaining the status quo was a primary concern worldwide, and thus digital technologies were used to create new opportunities in many fields such as health,

education, and work, as well as sustaining different social behaviors, including entertainment and shopping (Vargo et al., 2020). Teleworking can run effectively if an active IT connection is present between the employer and the employees. The shift toward telemedicine, telework, and online learning became the only way to overcome the immense consequences of the pandemic (Zhang et al., 2020).

In this thesis, our primary focus is on teleworking and home HBW. Technology is considered one of the main pillars affecting the success and the spread of remote and telework. Therefore, it is vital to study the effects of technological development on telework and the technologies needed to effectively adopt the WFH approach.

Although many theorists argue that F2F interactions cannot be replaced by technology, with the recent global crisis, technology plays a crucial role in minimizing the adverse outcomes of social distancing regulations. The pandemic played a vital role in designing, developing, and using new and existing technologies (Sein, 2020).

The recent developments in ICT enabled employees to finish all the needed work tasks outside the office or the workplace (Shahid & Shareena, 2020). This has been a great advantage during the pandemic, as social distancing measures can be effective and less costly to maintain (Atkinson et al., 2020). The ongoing innovations in the ICT world are certainly affecting the flexibility of work practices and outcomes.

Moreover, inadequate availability of ICT can result in a decrease in telework productivity (Scholefield, 2008). As mentioned by Zaied et al. (2017), ICT refers to technologies like the internet and intranets. According to an article by Singh et al., (2017) citing Richardson and Writer (2017), the availability of modern technology, such as the internet and web conferencing, enabled the expansion of the concept of WFH as a result of the increase in credibility between employers and employees. Fewer F2F interactions are now needed as many jobs, including customer service and public services, can be performed and offered remotely (Atkinson et al., 2020). The concept of a physical workplace is gradually becoming less important, and it is now shifting toward becoming a state of mind due to IT growth (Shahid & Shareena, 2020).

3.9.2 Hardware and Software used

There are currently about fifteen types of hardware and fifty types of software technologies that have been used throughout the pandemic to overcome self-isolation policies (Vargo et al., 2020). The use of computers, smartphones, different communication platforms, and video-based communication changed our lives dramatically on both social and work levels, creating a new normal (Vargo et al., 2020; Hodder, 2020).

Disruptive technologies were also used to maintain efficiency and effectiveness during this period; these technologies include Virtual Reality (VR), Internet of Medical Things (IoMT), 5G, Robots, and Artificial Intelligence (AI) (Abdel-Basset, Chang, & Nabeeh, 2021).

Excluding medical technologies, the main types of technological hardware that have been used includes computers with web cameras, video-based mobile devices, and robots that monitor remotely. These technologies are employed to implement remote working, virtual education, and sustain daily life (Eraso & Erro, 2020; Baert et al., 2020). Various types of software have been used to overcome the challenges of the pandemic and run remote working effectively. These include emails, web conferencing, instant messaging, Google Sheets, Zoom, online surveys, data set technology, WhatsApp, Line, and SPSS (Vargo et al., 2020). In addition, Abilash and Siju (2021) explained how various well-known cloud-based technologies made it easier for remote working to exist effectively and efficiently in comparison to the traditional office (2021).

The use of computers and smartphone is vastly growing; research indicates that employees are currently very experienced with the use of personal mobile phones for work propose (Hodder, 2020). According to reports by the Ministry of Communication and Information Technology in Egypt, around 70% of women in Egypt use the internet while the number of women using mobile phones are estimated to be 99% (NMCIT, 2022). The use of mobile and smart phones will certainly aid in the process of telework implementation for women in Egypt.

3.9.3 Role of Policymakers, Managers and Governments:

It appears that COVID-19 exposed a technological gap in many societies (Atkinson et al., 2020), including Egypt, as it faces serious issues regarding digital readiness due to educational deficit. Abilash and Siju (2021) argued that "the current technological limitations can be a barrier to the development of the workforce" (p. 3). Governments around the world have been adopting

ICT since the mid-1990s, in efforts to enhance the procedures and functions of the local states (Zaeid et al., 2017).

Human behavior must be studied meticulously when attempting to design, build or use technologies. These days, governments are developing and integrating new technologies in response to COVID-19 (OECD, 2020)). This digital transformation has made physical distancing easier and facilitated increased productivity while carrying out remote activities. Productivity is reported to increase as a result of workers' wellbeing, gender equality and overall satisfaction (OECD, 2020). Thus, policymakers and governments consider this an excellent opportunity to address, highlight, and solve the digital divide (Atkinson et al., 2020). According to the World Bank (2020) report on the "Changing Nature of Work," higher labor productivity is now achieved in many sectors due to the use of technology, as it helped reduce daily routine tasks for many workers. It has also encouraged the emergence of new sectors that no one ever imagined would exist. Accordingly, governments should fund and develop digital platforms that may help overcome the gap created by social distancing and help in the success of flexible work approaches. Supporting these approaches will ensure the protection of women—particularly those with family responsibilities—against wrongful termination of employment (Mandal, 2013).

Atkinson et al. (2003) argued that electronic IDs, health records, data systems, mobile payments, and 5G are all technologies that governments should consider essential for successful transformations toward remote work. The Egyptian government is working on enhancing fiber optics technology to help the process of digital transformation (MCIT, 2020)

Governments should pursue systems such as E-government which denote the use of technologies, especially the internet, to provide different services to citizens and businesses (Zaeid et al., 2017). The positive outcomes of these systems include providing a mechanism and opportunity for citizens to be more involved in decision-making processes, which in turn improves accountability and good governance.

Traditional governmental systems are expensive, old fashioned, and far from citizen-friendly, making telework and engaging in social distancing very hard to achieve. Governments and the public sector need to upgrade their IT systems just like businesses and the private sector have (Atkinson et al., 2020). Governments also need to invest in building systems that aid in monitoring and supporting teleworkers (Schuster et al., 2020).

3.9.4 Job Characteristics

After explaining the direct relationship between the development, availability, and adoption of technology with the implementation and effectiveness of telework, another essential factor to consider is the "Job Characteristics," identified by whether the job in question can be performed remotely. Can the use of digital technology or ICT change how this job is performed? Is the term tele-commutable occupation present? The job characteristics are also a very important factor as most women tend to choose jobs that are compatible with their family responsibilities. The number of commuting hours is also a very important variable in identifying job characteristics.

Most of the empirical studies represented in literature concluded that the viability of remote and telework are undeniably influenced by job characteristics (Drucker & Khattak, 2000). Job characteristics are considered an important area to explore and understand as they help managers assign remote working to appropriate jobs and workers (Golden & Veige, 2005 as cited in Wang et al., 2021). Moreover, their proper identification can help to create remote working policies that are compatible with different jobs and individuals (p.6).

In their research, Dingel and Neiman (2020) stated that around 37% of jobs in the United States could be completed entirely at home. In a policy brief issued in May 2020 by ILO, four main sectors were identified and rated as "high risk" in terms of being negatively impacted by the COVID-19 pandemic, leading to job loss and a severe decline in the number of working hours. The sectors are:

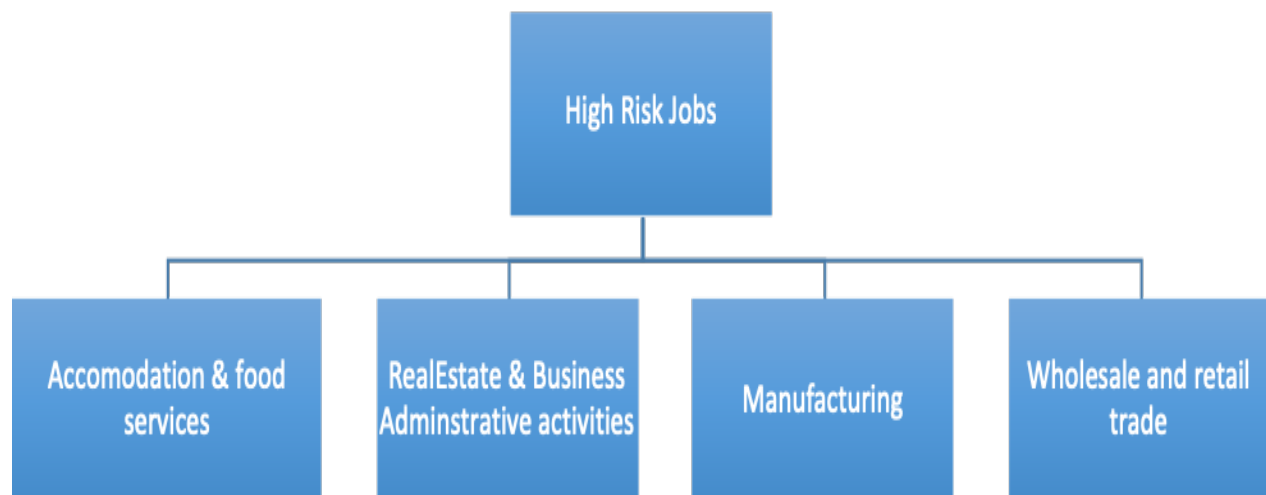


Chart (1): Sectors highly affected by COVID-19.
Source: Constructed by author based on ILO 2020 report

Usually, men are more affected than women by economic recessions as they are more likely to be employed in industries related to economic cycles. Nonetheless, according to the same policy brief by ILO, 527 million women, or approximately 41%, were employed in high-risk positions compared to only 35% of men in the year 2020 (ILO, 2020). Other sectors that suffered from the current situation are personal services (hairdressers, for instance), passenger transport, art, and entertainment (World Bank 2020; Vavra, 2020).

In response to the changes in the job market, Dingel and Neiman (2020) developed an HBW measure according to Occupational Information Network (O*Net) data by measuring how the existing social distancing regulations can affect jobs in three main dimensions. These HBW measures help in identifying and assessing the types of jobs that can be performed remotely and the percentage of jobs that can be done at home. "One way to assess vulnerability during the Covid-19 pandemic is to look at jobs that can be done at home," (World Bank, 2020 p. 4).

Nowadays, as a result of technological advancement, many jobs—even customer service—can be done remotely (Atkinson et al., 2020). The significant increase in human/machine collaboration as well as the emergence of new robotics systems can eventually substitute the human workforce (Watson, 2017). Telework can usually be performed in jobs that require a high level of reading, writing, and others that need focusing or extended concentration (Potter, 2013). This suggests that there are jobs that can be performed remotely and others that would be difficult and require F2F interactions. Women tend to work in both, employed in high WFH jobs while others can hold jobs as essential workers, or other positions that cannot be done remotely (Brusseovich, Norris & Khalid, 2020).

The present situation had an enormous effect on many sectors and systems, including hospitals, schools, and businesses (Zhang et al., 2020). There are specific job sectors in the market that tend to be more hospitable to be performed by women, particularly married ones such as, “pharmaceutical manufacturing, financial services, education, social care, and human health” (World Bank, 2018, p. 129).

As such, we understood that some occupations are more conducive to remote work while others may present barriers to adopting this approach. Moreover, since most ICT-supported jobs

require intellectual rather than physical activities allowing more flexibility, women can easily enjoy remote working (Ibrahim, 2014).

Another very important variable is the number of commuting hours needed for this job. Since most nine to five jobs require commuting time, a large percentage of mothers reported feeling “rushed or pressed for time” (Pocock et.al, 2010, as cited by Rose & Hewitt, 2018 p.2). Mothers are usually also obliged to spend time on house chores and child care which is considered “unpaid work”. Therefore, most women experience time pressure and tend to use time management strategies such as time squeezing and time shifting to overcome this problem (Rose, 2017).

3.9.5 Demographic Characteristics:

Many empirical studies focused on the direct relationship between community characteristics and demographics to teleworking behaviors (Drucker & Khattak, 2000). The gender, marital status, size of the household, number of children, and their age, as well as other factors can determine the likelihood and feasibility of telework.

Gender is one of the main demographics. According to Di Martino and Wirth (1990), a preference for telework is usually related to gender. Women tend to favor telework more than their male counterparts (Mokhtarian & Salomon, 1998). As previously discussed in the Advantages of Telework section; flexibility, convenience, freedom, and autonomy given to women by telework are the main reasons for their preference toward this approach. This is mostly because of the gender roles identified within the society, including childcare responsibilities and household chores.

Marital status is also considered another demographic factor that affects the choice of telework; married couples tend to choose and favor telework more than their unmarried counterparts; this is represented mainly by women who are looking for ways to save commuting time. A very important concept emerged in the literature identified as “Marriage Mismatch,” where women are unable to keep up or afford the balance between the responsibilities that comes with marriage and children and the needs of the labor market in Egypt (Hendy, 2015). According to the “World Economic Empowerment Study in Egypt,” When a young woman gets married in Egypt there are usually two scenarios, either she stays at home to take care of her children and domestic duties such as cleaning and cooking, or she returns to work in order to help support the family

(World Bank, 2018). Although work for women in many cases is considered to be supplementary or secondary in comparison with men, their involvement in paid labor is becoming more and more important (Cooklin et al., 2014). Moreover, in some cases female single parents remain or enter the labor market for paid employment in order to provide resources for their families and children (Adisa et al., 2016).

The number of children and their age are among the crucial variables and factors affecting the choice and implementation of telework. Previous studies show that WFC and FWC tend to increase drastically as the stages of parenthood evolve. WFC increases when the youngest children are aged 6-12 years, while FWC increases from ages 2-5 (Zhang et al., 2020). More recently however, WFH has become more generalized across many sectors and types of businesses. This exposed a fundamental reality: the overlap between familial and professional life, which indeed provided many women with a glimpse of hope for the future (ILO, 2020).

According to the previously discussed literature in this chapter, we can understand the link between technology and facilitating new flexible working methods, normalizing the use of technology for telework and remote working while understanding the importance of different factors such as technology and the type of job performed. There is an obvious gap shown in the literature as all articles discuss flexibility of telework and the advantages and disadvantages of implementing this technique in general. The case for women and mothers in particular, given their multiple roles, are not meticulously studied. The effects and consequences of applying the telework technique on the working mothers was not mentioned in the literature and therefore this study will

The literature highlighted the current opportunities for telework during the pandemic. The Egyptian government and other institutions have taken steady steps in favor of ICT and telework, which must be taken advantage of to allow women to enter and participate in the labor market even with the socio-cultural responsibilities on their shoulders.

Chapter Four

4. Conceptual Framework

4.1 Theories, Concepts and Definitions

It is important to identify different definitions, concepts and theories in order to understand how telework can facilitate and empower **educated mothers** to be present in the labor force. Highly educated mothers in particular are the target of this study, as higher education among women is seen as an “instrument of personal development,” (Mandal, 2013 p. 20). It is also recognized as a way to increase their wellbeing, grow intellectual possibilities, as well as expand their potential for empowerment. Maternal education is considered very important as educated mothers tend to lead healthy and productive lives, earn higher incomes than their uneducated counterparts, while building the future for themselves and their families (Porter, 2016).

Working mothers are defined in the literature as “women with the ability to combine a career with the added responsibility of raising a child,” (Poduval & Poduval, 2009 p.5). They can be divided into two categories: 1) mothers who work from home and 2) mothers working outside of home while managing maternal duties (Poduval & Poduval, 2009).

This study focuses on educated women in particular as they tend to possess **digital literacy**, which articulates their ability to “find resources, critically evaluate and create information using digital technology,” (Porter, 2016 p.529). Since this study is mainly focused on telework, the use of technology and ICT by highly educated mothers is important to obtain the desired outcomes.

There are many definitions, types and modalities for “**flexible work**” available in the literature. Most research claims that until now, there are more than one definition for the term “telework.” This is due to ongoing evolution of the practice (ILO, 2016). Some scholars argue that telework occurs when workers use ICT to substitute in-office work for remote work (ILO, 2016 p. 6). In the present study, telework is understood within the definition used by the International Labor Organization (ILO).

Telework: “Defined as the use of information and communication technologies (ICTs) such as smartphones, tables, laptops, and/or desktop computers for work that is performed outside the employer’s premises.” (ILO, 2020)

Teleworkers are defined as employees and self-employed workers who use ICT-supported devices, namely smartphones, tablets, and desktop computers, to complete their work tasks at any location (Modrono & Lopez, 2020).

The ILO has identified three **modalities** for telework:

1. Regular home-based telework
2. High mobile telework
3. Occasional telework

This study focuses on regular home-based telework as it is more convenient for **educated** working mothers with young children to be able to achieve **Work Life Balance (WLB)**, which has been defined as a “flexible working arrangement that provides a balance between work responsibilities and personal responsibilities” (Pillinger, 2001, as cited by Bello & Tanko, 2020 p. 4).

There are many WLB theories available in the literature, however this research focuses on two main theories that shed a light on the relationship between WLB and the roles and life stages of the working mothers put forth by Bello and Tanko (2020).

The first theory is **Inter-Role Conflict Theory**. This theory is discussed here because women tend to occupy multifaceted roles, as explained previously, including being the household managers and providing child care. Their multiple roles can lead to obvious conflicts. According to Greenhouse and Beutell (1985), this theory argues that one might face conflicts between roles. This occurs when requirements from one role affects the other roles. Mothers of young children often face the problem of inter-role conflict. Thus, this thesis suggests that if telework with flexibility is implemented, working mothers may find it easier to successfully perform all of their roles, achieving the desired outcome of WLB.

The second theory is the **Integration Theory**. This theory suggests that flexible and penetrable boundaries between family and work can advance different domains such as community life, work life, and family life (Clark, 2000). This theory builds on the idea that work and family responsibilities are carried out in separate times and places, with barriers that make it difficult for women to excel in all domains. Therefore, flexibility is proposed as a solution to create a “temporal border separation” as explained by (Clark, 2000 p.757).

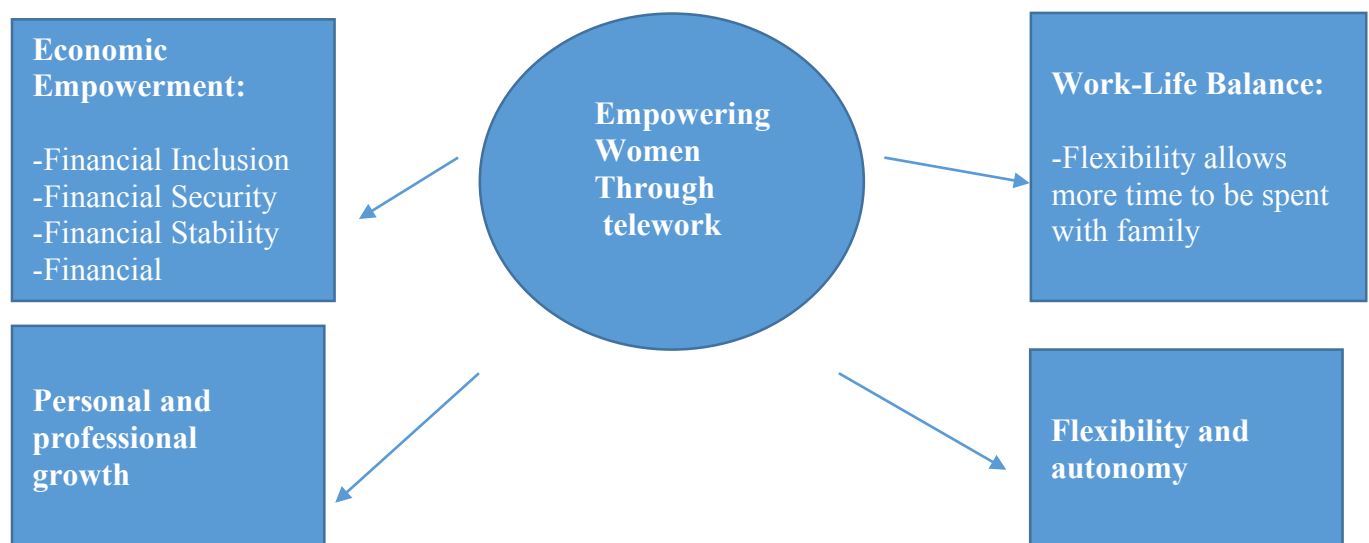
These theories are important to examine and discuss in this thesis given their relevance to how flexible work techniques such as telework can aid in achieving WLB for women and decrease the conflicts that arise within both domains.

These two theories support the argument of this research, which articulates that the availability of flexible work practices such as telework can ease the implications created by overlapping roles that working mothers inevitably face. There are other theories related to WLB discussed in the literature, including; Segmentation, Instrumental, Boundary and Spill-over theories (Bello & Tanko, 2020). These theories, however, do not reflect on the situation for working mothers and the conflicts between the domains of work and life that they face.

Telework, according to Zhang et al. (2020), is considered a compromising method used to fulfill the demands of multiple conflicting roles. This could subsequently lead to the achievement of **WLB**, a **decrease** in the **unemployment rate**, an **increase** in **job satisfaction**, and **financial empowerment**.

Financial empowerment is among the five main types of empowerment for women which are: social, educational, economic, political and psychological as identified by Mandal (2013). Economic or financial empowerment can be gained by providing equal work opportunities, equal working environments, and organizational benefits to women with family responsibilities (Mandal, 2013). Financial empowerment is very crucial for women as provide them with the sense of control and autonomy.

The below chart describes the ways that telework and WFH can empower women:



*Chart (2): How does telework empower women?
Source: Author's interpretation based on World Bank and ILO reports*

4.2 Suggested Framework:

Previous frameworks in the literature usually reflect on employers and employees in general (both females and males) as the main stakeholders. Unfortunately, the available literature rarely reflects on females in general, and mothers in particular. Therefore, developing a model or a framework that can be used to understand the potential impact of telework on mothers and caretakers is essential.

Campbell and McDonald (2009) created a system-based model explaining the adoption and utilization of telework. This model suggested three main elements leading to the adoption and implementation of telework. They are: 1) Telework drivers 2) Telework process 3) Telework outcomes. In other words, it can be divided into motivation, activities and consequences of telework.

Baruch & Nicholson (1997) identified four main factors that influence or motivate the adoption of telework. They include: 1) individual factors 2) organization 3) job nature and technology 4) home and family.

Building on the suggested frameworks by Campbell and McDonald (2009) and Baruch and Nicholson (1997), and previous research discussed in the Literature Review, chart (4) represents a suggested illustration by the author for the drivers that lead to choosing telework and individual outcomes educated mothers can gain as a result of proper adoption of flexible working methods. In this research the focus will be on three main **factors or motivators** for adopting telework. These factors are: 1) employee preferences 2) job nature 3) environmental factors. The **process** of adopting telework includes: 1) The availability of technology 2) proper surveillance and governance 3) policies and regulations. This leads to different outcomes for society, the organization and the employees. In this research our main focus are the **employees**, specifically **“working mothers.”** The following framework illustrates the variables (factors), processes and outcomes of implementing new flexible working techniques, such as home-based telework, on educated mothers.

Home-Based Flexible work drivers and outcomes for educated working mothers

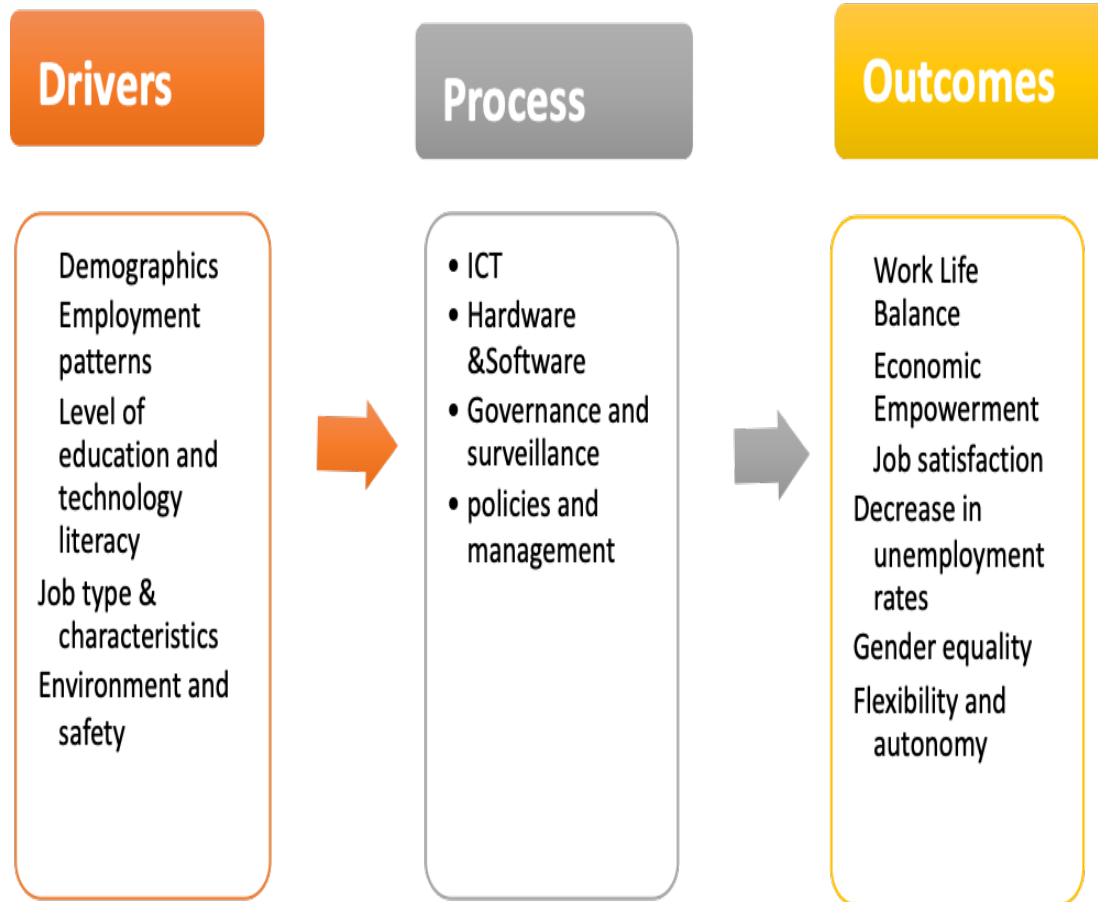


Chart (3) Conceptual Framework

Source: Authors interpretation based on Campbell & McDonald model and Baruch & Nicholson factors

The conceptual framework discussed three main important steps in order to ensure the proper implementation of telework including drivers, process and finally the outcomes. This framework suggests that telework can be used to maintain employment status, achieve gender equality, WLB, empowerment, and satisfaction. This can only take place under the condition of the availability of motivators such as education, demographics, and environmental drivers and using different ICT technologies to reach the desired effects. Understanding the nature of telework and its flexibility to over-come the burdens and responsibilities mothers endure as explained by the two suggested theories is a very crucial step.

Chapter Five

5. Research Design and Methodology

5.1 Design:

In an attempt to understand how flexible working methods such as telework can facilitate the entrance and sustained presence of educated mothers in the Egyptian labor force, as well as identifying the effects COVID-19 imposed on telework implementation, a qualitative methodology using empirical primary research was designed for this study. Qualitative methods are usually used to answer questions about life experience, a specific meaning, or a perspective from the participant's point of view (Hammerberg et al., 2016). There are specific types of inquiry, such as research about an innovative system or an emerging phenomenon, that require the use of qualitative research (Marshall and Rossman, 2006). Qualitative methods can help in the process of researching topics where little is known about a phenomenon, as it is more concerned with describing or analyzing a specific case or phenomenon (Creswell, 2013). And since the application of telework is considered a relatively new topic in Egypt, specially in reference to its application by working mothers, qualitative methods are the best way to obtain more insights and data. Qualitative methods also allow for more meaningful interactions between the researcher and the respondents, which gives the opportunity for the respondent to explain and communicate thoroughly their feelings, needs or concerns.

5.2 Method:

Semi-structured one-to-one in-depth interviews were used to collect primary data. The interviews were designed to run from 30 minutes to one hour. This time was allotted to give the interviewees the chance to fully express themselves and deliberately answer each question. The interview questions can be found in the appendix. Two interview formats were developed, one for mothers and the other for policy-makers and managers. The interviews took approximately four months to complete as some of the mothers had to cancel or reschedule their interviews.

This method was chosen to create the opportunity through conversation for the participants to express themselves openly and pursue issues they feel are important (Longhurst, 2009).

5.3 Sample:

A stratified purposeful sample will be used in this study. As described by Patton (2002), this method allows the study to focus on information-rich cases. It also enables the researcher to have more insight into real cases. This was followed by a snowball sampling to increase the number of participants. The sample consists primarily of highly educated mothers, with a university degree or completed their graduate studies, of children under 12-year-old (as they tend to need more physical care and assistance), working or attempting to work at jobs, whether part-time or full-time, from the office or using flexible work approach like teleworking before the pandemic. The age and number of children are considered important variables, so I made sure the sample included mothers of one or more children, from newborn to pre-teen. The age of the participants ranged from 20 to 45 years-of-old. The interviewed participants were required to have a college degree at least, however, could be a Masters or a PhD degree holder as well. These women could be currently working at private institutions, public organizations, or unemployed. This is known as a multi-site sample, as it is not constrained to only one site or case (Marshall and Rossman, 2006). This multi-site sample allowed me to gain more insight of the situation, especially in the case of the coronavirus pandemic, where different sectors were affected and different types of jobs faced new regulations. Managers interviewed for the study were also chosen based on a multi-site sample as they would be working in a public, private or multinational institution. Diversity in the age of participants, their children's age and their occupations allowed for triangulation of data. The interviews took place using Zoom meetings and phone calls. All the interviewees are from Cairo and have completed their bachelor's degree and few of them completed a diploma or a master degree.

The following table provides a sample of the demographic characteristics of some of the 30 interviewees in this research,

Respondent number	Type of Job	Number of Children	Age of Children
Respondent 1	Freelance Medical Translator	Two	One year

			& Six years
Respondent 2	Public School Teacher	Two	Six years Nine years
Respondent 3	Public private partnership	One	Seven months
Respondent 4	Public sector project management	Three	Five Nine & 11
Manager 1	Government consultant (manager)	----	-----
Manager 2	Manager non-profit university	-----	-----
Manager 3	Health, Safety & environmental manager at multinational	----	----
Manager 4	Manager at public organization	-----	-----
Respondent 9	Public Hospital	Two	Seven and 11 years
Respondent 10	NGO	Two	Six and 12 years
Respondent 11	Private company	Three	One, Six and Nine years
Respondent 12	Site engineer, private sector	One	Nine years
Respondent 13	Public sector	One	Five years
Respondent 14	Teacher	Two	Nine and 11
Respondent 15	Public private partnership	One	One year
Respondent 16	IT specialist, public petroleum company	One	Seven years
Manager 5	Supervisor at public organization	-----	-----
Respondent 18	Health inspector at public hospital pharmacy	One	Six months
Respondent 19	Administrative position, public university	Three	Four, seven, 12
Respondent 20	Part-time at private sector company	Two	Five and one year
Respondent 21	Communication consultant private company	One	Five years
Respondent 22	Resigned	Two	Six and eight years
Respondent 23	Administrative position	Two	Twin, seven years

Manager 6	Manager, public institution	-----	-----
Respondent 25	Doctor, public sector	Two	Six months, Five years
Respondent 26	Part-time	Two	Eight months, Seven year
Manager 7	Manager at advertising agency	-----	-----
Respondent 28	Coordinator in a communication company	One	Six years
Respondent 29	Teacher	One	One year
Respondent 30	Advertising agency	Two	Five and Eight

Table (2): Study Interviewee Sample

5.4 Data Analysis:

As the interviews took place in Egypt, and the interviewees were all Egyptian women, the interviews were thus conducted in Arabic. The answers were then translated into English and coded. Thematic analysis of the interview answers took place and three main themes were initially identified, followed by sub-themes. Thematic analysis was of great help in the process of conducting comparisons between the extracted data and the existing literature presented above. The analysis allowed the researcher to answer the main research question as well as the sub-questions deliberately. Interviews were audio recorded then transcribed.

5.5 Limitations:

Generalizing my results following data collection was difficult in this case, as I only consulted a small or minor sample from my target in this study. Another limitation would be that many educated mothers find it difficult to meet in person to undergo a face-to-face interview. This was particularly challenging in the current situation of the coronavirus pandemic, instead most preferred phone interviews or video calls. Additionally, most mothers are torn in their daily family and work responsibilities, and therefore some had to cancel or reschedule their interviews. Finally, one of the interview questions relates to understanding who is the main breadwinner in the family and whether the money earned by the interviewee is used to support the family or not. As most

women find this topic sensitive to discuss, it was challenging to broach these issues with the interviewees.

5.6 Ethical Considerations:

The identity of all interviewed participants have been kept anonymous and any information provided has been kept confidential as the interviewees have been identified by numbers. At the beginning of each interview, the participants were informed deliberately and asked to verbally approve the points denoted in the consent form to ensure they understand the target and nature of the study. All interviews were conducted following IRB approval. Participants provided consent to be recorded during the interview. None of my participants were pregnant or expectant mothers.

Chapter Six

6. Findings

This chapter discusses the findings of the interviews that took place throughout the study. This will include both the interviewed mothers and managers. Ultimately, this combination of interviewees provides better insight on how flexible work, or “telework” specifically, can help mothers participate and remain in the Egyptian labor market.

After the completion of the interviews thematic coding was applied in order to analyze the findings, three main themes that are compatible with the conceptual framework emerged. These themes reflect on how home-based flexible work can help the presence and sustainability of mothers in the labor market and are: 1) Drivers 2) Processes 3) Outcomes. Sub-categories were then identified under each main theme, providing an in-depth explanation. The first section is identifying the drivers or motivators, which are the variables that must be present to ensure the proper implementation of telework. These drivers are all specifically related to mothers of children younger than 12-year old including demographics, employment pattern, and job characteristics, with the exception of “environment and safety,” which emerged more recently with the presence of the pandemic, and was considered a turning point in the implementation of the telework approach in Egypt and worldwide. The second section will discuss the processes, this part recognizes the activities, policies and equipment needed to properly implement telework. The sub-categories of this theme include ICT and technology used, governance and surveillance, and finally policies by managers and policy makers. The last section includes the third theme, the outcomes of implementing the flexible telework approach. This section sheds light on how proper implementation of telework can support educated mothers, help them to stay in the labor market and overcome the challenges they face due to their multiple roles.

6.1 The Drivers

Understanding the drivers behind unemployment, different working patterns and the adoption of teleworking is vital as these variables create motivation for mothers to engage in telework and subsequently will lead to the desired positive outcomes of following this flexible work approach.

6.1.2 Demographics

Demographics are considered some of the main and crucial variables affecting the choice of telework for mothers. Marital status, age of children, number of children, family life stage and situation are all factors that can influence the implementation and progress of telework.

The analysis starts with the **marital status** variable; being married, divorced or a single mother can enormously affect the employment of mothers and determine the preference toward choosing telework. Single, divorced mothers for example face financial and time constraints that make it difficult to balance between their children and their job needs. This was articulated in the following quote by Respondent 2 who is currently working as a public school teacher. is recently separated with two children aged six and nine.

“After being divorced, I had to play two roles! I had to provide a decent life for my children, take care of all the financial problems, and have time to do all the mommy work taking good care of their meals and attending their school events, and to be honest this is too much for me.”

(Respondent 2, June 2021)

Respondent 2 adds,

“Suddenly I became totally financially independent after spending years depending on my husband for all my financial needs. I had to find a way back to work after six years of only focusing on my kids.”

Time and financial constraints can affect married mothers as well, in some cases mothers can leave their jobs to travel with their husbands for financial reasons. Consequently, they more easily lose their jobs and end up getting more involved with the children's needs. This case was explained by Respondent 9, a mother of two girls currently working at a public hospital who had to travel with her husband right after getting married,

“I had to willingly quit my job here in Egypt as my husband found a better job opportunity, it was shortly after being married and I had to choose what is best for us as a family (...) of course if I had the opportunity to choose home-based work it would have been great for me at least I would have found something to do every morning while my husband was at work.”

(Respondent 9, July 2021)

Traveling with the husband for work purposes or a change in home location can cause unemployment just like the case of Respondent 9. Other mothers also reported similar cases. Women at this point are left with no other option than prioritizing their family and spouses over work. Work and family are the most crucial facets in everyone's life, but unfortunately, they can exist in great conflict, especially when women have to juggle between making and career and making a new family (Cabrera et al. 2019). This can trigger WFC, FWC and the inability to maintain WLB (Steibar & Haas, 2012). Most of the mothers in this research, and those with young children in particular, reported accepting telework options that can accommodate the different family needs. There was a clear positive relationship between the marital status of women and their likelihood to choose telework (Zhang et al., 2020).

Marriage responsibilities, household chores and duties are certainly identified by gender in many developing and transitional countries, and here in Egypt, women tend to get the largest share of responsibilities. After getting married Respondent 11, a mother of a two-year-old child, found herself totally responsible for preparing the food, cleaning the clothes, ironing and many more daily chores that she was not responsible for before getting married. She explained how this changed her mindset,

"I became physically tired and drained, how I am supposed to keep up with work and home responsibilities, cooking and cleaning and after having my baby it all got worse. At this point I said to myself, if one day I had to choose to work in a job, it has to be more flexible to be able to cover all my roles."

(Respondent 11, June 2021)

The three cases represented above show how marriage and marital status can affect women's choice in employment. In fact, it highlights how the marital status of each woman affected her ability to effectively manage her finances and create a balance between her multiple roles. The marital status of a woman can influence whether or not she decides to pursue a career and continue in the labor force. According to data presented in the literature, unemployment of females in the year 2020 reached 846,000 (CAPMAS, 2021). Marriage is seen as one of the main

reasons behind the low labor force participation rates of women in Egypt (Hendy, 2015). Women tend to face multiple roles and duties with high expectations to guarantee family cohesion (Pordelan et al., 2021). Time spent and used by women is usually determined by changes that take place in the family including caregiving needs and the spouse's working hours (Bianchi, 2011) as cited by (Lyttelton et al. 2020). Factors such as culture and religion may justify the traditional household roles that women endure (Hendy, 2015). Juggling multiple roles such as being a mother, wife and an occupational role can certainly put pressure on working mothers (McIntosh, 2005, as cited in Pordelan et al., 2021).

The attitudes of women towards different gender roles is considered a very important determinant in their employment behaviors and patterns (Steibar & Haas, 2012). In other words, the ability of mothers to find balance and satisfaction is to a very great extent identified by how they are expected to perform in different roles. Domestic unpaid work is usually connected to marriage and society portrays it as solely the responsibility of women, despite its importance for the wellbeing of the whole family (Duxbury et al., 2007). Women in the Arab region tend to spend 4.7 more time in unpaid work including domestic work and child care than men (UN Women, 2020). This again can have an effect on the wellbeing of mothers, their ability to overcome WFC, FWC and maintain WLB.

The **number** and **age of children** is an important demographic variable. Many mothers see that school age children under 12 require more attention and time to discipline. On the other hand, new born babies and toddlers need full-time care and energy. Breastfeeding mothers usually need two years to be able to separate from their babies and get back on track. Many mothers find it difficult to get back to work after giving birth, especially if there is no one to look after the child. Respondent 15, a mother of a one-year-old boy explains how she had to arrange with her family members to get back to work,

“After my three-month maternity leave I had to get back to work, thank God my baby was bottle fed but the problem now was how can I leave him for so long every day to work. I had to agree with my husband that the best decision is that my mother would move during weekdays to stay with us and take care of my baby while I am at work.”

(Respondent 15, July 2021)

Respondent 18, a new mom working as a health inspector in a pharmacy at a public hospital had the same experience after her four-month maternity leave elapsed, she had to return to work and leave her baby with her mother-in-law. Labor laws in Egypt allow women to take three-months maternity leave in the private sector and four months in the public sector (National Council for Women, 2021). Mothers in the public sector can apply for a two-year childcare leave up to three times. This law can be very demotivating for many mothers who want to get back to work after giving birth. Many mothers choose to leave their babies with a trusted family member so they can return to work. This is a frequently used coping strategy that family members may agree on to overcome the weight of childcare responsibilities and expenses. The family structure and roles as well as economic factors are usually what determines the coping strategies adopted by the family and in some cases working mothers, as described by Adisa et al., (2016). In the case of Respondent 15, the presence and flexibility of her mother made it easy to cope with the situation. However, this is not always the case.

Other mothers may find it difficult to involve a family member and accordingly would choose to enroll her baby in a childcare service. Respondent 3, a new mother of a seven-month old baby working in a public private partnership entity, had to get back to work when her daughter was only 3 months old and she had no other choice than to depend on childcare services. She explained:

“I left my child at the kindergarten when she was three months, I pay a lot to ensure that she is safe in a reputable nursery but this is my only solution, no one can stay with her and I can’t afford to quit my job.”

(Respondent 3, June 2021)

Leaving their babies at a very young age can make mothers feel stressed and guilty and thus decrease their productivity and job satisfaction due to FWC that arises subsequently (Adisa et al., 2016). This was the case with Respondent 20, who used to work as a part-time worker while pregnant with her second baby and is now urged to get back to full-time work to ensure getting promoted. She said:

“I will get back to work by the end of this month, although my baby will be almost one year, I am psychologically and mentally stressed. I keep thinking everyday about how my baby will be alone without me, what if he is crying or needs to be hugged and comforted. He is too young for this (...) I wish I had more flexible options other than getting back [to work] and leaving him.”

(Respondent 20, June 2021)

Respondent 3 also suffered from the same stressful consequences of leaving her baby girl. She expressed her feelings in the following way,

“There are times when I feel like the worst mother, when my baby gets sick from the nursery I have to take some days off and here comes the guilt. I am always guilty either for leaving my girl for the sake of my job or for taking leaves for the sake of my girl’s health. I don’t know, when will I be relieved?”

(Respondent 3, June 2021)

The cases above show how mothers of young children can easily be demotivated to stay in the labor force and have to face many daily burdens to keep up with their childcare responsibilities and needs. Kotb el al. (2012) stated that the social and economic changes that women in Egypt face create new challenges when they think of combining their roles as mothers and workers. Being responsible for raising a child usually makes it very difficult for women as they have neither the time nor the energy to enter the labor market, particularly those who have young children (Hosney, 2016). WFC seems to arise often due to childcare responsibilities, and mothers choose different ways to overcome this conflict. Enrolling children in daycare or kindergarten is considered another coping strategy that is viewed by many mothers as expensive and not easy to access (Adisa et al., 2016). Subsequently, mothers who fail to use childcare facilities due to financial burdens or other reasons find it difficult to return to work, especially during the first year of their child’s life.

Not all mothers are given the opportunity to have the help of a family member or to enroll their children in a childcare facility. To get a better understanding of these issues from the

organizational perspective, a number of managers in different institutions were asked to reflect their own thoughts on the subject. Respondent 8, a manager at a public organization replied,

“We usually expect mothers of new children to take childcare leave this is the norm, most of the females working in the public sector are choosing the low wages in favor of the regulations and working hours so they see the two-year child care leave as a benefit they need to take especially that the other option will be leaving their four-month old breastfed baby all day.”

(Respondent 8, June 2021)

Other managers interviewed had the same opinion as well. Manager 2, a manager at a non-profit university, and Manager 3, a health, safety and environmental manager at a multinational, both believe that the turnover rate for female workers is directly related to their childcare responsibilities. Mothers of newborn babies up to preschool age tend to find it difficult to get back to work. Manager 1, a freelance government consultant working on different programs with major ministries in Egypt, said that taking childcare leave is very common in the public sector and that sometimes mothers take up to six years.

In addition to the age of their children, the **number of children** may also affect the employment of mothers and their choice for flexible work approaches. Most mothers of two or more children find it very difficult to return to work or start their careers. Respondent 19, a mother of three children currently working in an administrative position at a public university explained how she felt after giving birth to her third child,

“In the middle of daily milk pumps, preparation of school meals, homework and trainings and a full time job I felt that no one is happy and I had to take childcare leave”

(Respondent 19, August, 2021)

Being responsible for a big family, with children at different ages who have different needs, creates WFC. According to Lyttelton et al. (2018), WFC affects women with young children due to the amount of care and housework they have to do compared to the father.

Mothers tend to show unstable working patterns due to different hindrances they face (Steiber & Haas, 2012). From extended childcare leaves, total career shifts and on and off employment, mothers often fight in earnest to achieve the goal of WLB. They struggle to provide their spouses and children with all of their needs. Taking leave is seen by many mothers as the ideal solution, as it provides them with the flexibility and autonomy to achieve WLB.

The third most important demographic feature that was highlighted in the interviews was the **type or financial position of the family**. This variable relates to the other two demographic variables, including marital status, age and number of children. When the number of children increases, so too does the financial needs of the family, including school fees, food and medical coverage, leisure and other daily expenses. Respondent 4, a mother of three boys working as a project manager in the public sector said,

“If it was not because of the money, I would have left very long ago (...) my long stay at the office everyday affected my youngest child’s ability to speak and express himself, I don’t have the luxury to leave.”

(Respondent 4, June 2021)

Respondent 4 had to sacrifice the wellbeing of her youngest boy because her family needed her financial support. Economic reasons can significantly affect the willingness of women to work (Steiber & Haas, 2012). Double earning families are becoming increasingly common and in many cases essential (Australian Bureau of Statistics, 2008). Providing a decent life for your children might require sharing the financial burden. In this case, mothers face an overwhelming challenge of keeping up with family demands in parallel to work-related demands (Duxbury et al., 2007).

Before separating from her husband, Respondent 2 had quite an unstable employment pattern; she had to quit two jobs for the sake of her kids and her husband. After the divorce took place, she had to go back to work. This was explained by her in the following way,

“My ex-husband and I would agree on me leaving the job to take care of our kids for sometime, it was always me that had to prioritize the house and kids over any career. Now that I am divorced, I have to keep both!”

(Respondent 2, June 2021)

Women would usually choose their roles as mothers and wives, which is the traditional role expected by the society for them to fulfill (Duxbury et al. 2016). Having a full-time working spouse is identified by many societies, including Egypt, as the traditional or “normal” family setup and hence, the employment of women becomes a secondary option. Pursuing a career often does not liberate the mothers from their expected and traditional roles in the society, a fact that reinforces the traditional roles (Duxbury et al. 2016, p. 475).

6.1.3 Job Characteristics

Job characteristics, location and time are the second set of variables that seem to affect the telework implementation and choice for mothers. Not all jobs are conducive to telework and not all jobs are suitable for women to perform. In order to ensure flexibility and benefit from the autonomy that telework provides for mothers, some mothers reported shifting careers or changing job characteristics to enable this type of work. Respondent 1 a mother of two daughters, decided that this was the most suitable scenario for her family,

“After giving birth to my second girl I had to say goodbye to working in public hospital clinics, the long hours I spent on shifts was better spent with my newborn (...) I work as a freelance medical translator now and I can easily allocate time for work and my two girls”

(Respondent 1, August 2021)

In this case, Respondent 1 faced a problem with both the type of job and the number of hours needed to perform this job. Jobs that require F2F interaction can be hard to perform by mothers, and if they are looking for flexibility and time to spend with their children and spouses they need to look for jobs that do not require F2F interactions. Some jobs lend better to telework than others (Tremblay, 2002). These jobs usually include writing, accounting and administrative tasks.

Some mothers stated that in order to take care of their children they had to study for a new certificate or shift to a totally new industry just to be located near their kids. Respondent 10 is one of these mothers who shared her experience by saying,

“I had to take a new certificate to be able to work in a daycare facility and stay with my daughter to complete breastfeeding her (...) now that my two kids are older I chose to work at a NGO as the vacations here are very similar to international schools, I am now able to benefit from flexibility in my work.”
(Respondent 10, August 2021)

Working in a place like a daycare facility can be very suitable for many mothers. Jobs that allow mothers to stay with their children or provide childcare on the premises are rarely available in Egypt. This is despite the fact that Egyptian law states that a firm that recruits more than 100 female workers must have a childcare facility (National Council for Women, 2021). As a result, women may look for new job opportunities that allow them increased contact with their babies or toddlers, such as working in a day care or a school. Therefore, some mothers are urged to shift their course of study, take more courses and modify their careers to find more flexibility and be more attentive to their young children. In other words, their job types and characteristics are influenced by their current life stage and responsibilities. Limiting F2F interactions, enrolling in part-time jobs, shifting to freelancing or completely changing careers are all strategies mothers use to obtain flexibility and manage their family needs. Other mothers found that not all of their assigned job tasks can be completed through teleworking (Eraso & Garces, 2020). Respondent 14, who gave birth to her second child during the pandemic, works as a professor in a public university and a doctor at two public hospital clinics. She had a different experience to share related to job characteristics. Respondent 14 said that her job as a teacher could be tele-workable if needed, but being a doctor requires F2F interactions with patients to properly prescribe medicine for them. Respondent 12, a site engineer and a mother of a nine-year-old boy, reported the same problem, indicating that not all types of jobs can be done through telework and that in order to accommodate her motherhood responsibilities when her son was younger, she had to leave work for three years. These data support the claim by existing research that not all work

can be done online and that mothers may compromise by changing or leaving their jobs just for the sake of the family (Dingel & Neiman, 2020).

In addition to the type of job, job location and commuting time can also force some mothers to leave their employment or look for alternatives. Respondent 16, a mother of an eight-year-old girl had to leave her 9-5 job at a communication company when her daughter was 8 months old to find a job as an IT specialist at a public petroleum company near her home. She briefly explained,

“I had to go from Heliopolis to Nasr city to drop my girl at my mother’s place then drive all the way to 6th of October for my job at the Smart Village. There were days I came back to my mother at 7:30 pm to find my baby sleeping and I did not see her (...) I had to leave and search for a more flexible job near my house.”

(Respondent 16, June 2021)

Respondent 15 also thought about compromising after her marriage as the commuting time did not match her new life as a married woman planning to have a family and raise children. She articulated,

“I used to work at a private advertising agency and I would stay until 8:00 pm, I had to find a new job and even if it is part-time or the salary is lower, at this point I do not care.”

(Respondent 15, June 2021)

Most of the interviewees reported changing their job type at least once to comply with their different life stages and decisions. The mothers who were interviewed involved full-time work reported suffering from a lack of accommodation by colleagues and managers, who tend to disregard their roles as mothers and continually ask them to take on additional tasks or stay longer at work. Mothers tend to accept more part-time jobs or a decrease in earnings in favor of their family (Lyttelton et al., 2018). Some are encouraged by their husbands to find a new job that would help reduce stress and burn out. Other interviewees reported dropping out of their jobs when their children were young. Commuting long distances is seen as particularly difficult

for many mothers due to their multiple responsibilities (Constant et al., 2020). Mothers who had to change or leave their jobs due to commuting and traveling time were often forced to start all over again at a new company and in some cases, they accepted lower positions just to ensure proximity to their children. The flexibility and number of working hours are considered among the distinctive influential factors affecting the choices of women in the labor market. These factors not only influence the decision of whether to work or not, but also play a role in deciding the nature of work for both married and single women (World Bank, 2018).

The interviewed managers also commented on the type of the jobs assigned to women and the time that mothers spend traveling daily to and from work. Manager 1, for example, discussed this issue by saying,

“Sometimes it is hard for women to be recruited in the types of programs we work on, they do not even try to apply for the job, being available on a 24/7 basis and being able to travel is something hard for women to achieve especially those with young children. I personally face the same dilemma as sometimes male supervisors do not agree to hire me for the same reason until I prove my capability of doing the work (...) Many mothers reported that the time taken daily to travel to and from work consumes too much energy and time that makes them very tired and pressured they have to run to drive their kids very early in the morning and cannot be available for their children and that they would better consume this time doing any other work or home related duties.”

(Manager 1, September 2021)

This point is related to how some job types are seen as incompatible with the presumed responsibilities of mothers. Most mothers would think twice about applying for these jobs even if they are capable of performing well in them and even if the salary would be rewarding. The feeling of continuously “running” seems to be synonymous with being a working mother. Salwa, a manager at a public bank, had the same point of view, where she articulated the feeling that mothers are constantly in a battle against time.

6.1.4 Environmental and Safety Drivers

After the recent outbreak of the coronavirus pandemic, researchers viewed the environmental and safety aspects as main drivers of telework implementation and choices (Eraso & Garcas, 2020). All the working mothers interviewed for this study were forced to change to full-time or part-time teleworking as a consequence of the pandemic. These unprecedented circumstances have presented a great opportunity to test how telework has affected or changed their lives as parents and spouses.

Many working mothers were suddenly forced to stay home, telework and take care of their daily family responsibilities. Women with children under the age of 12 were asked to telework as a result of the closure of schools and daycares, to ensure the maintenance of social distancing and to overcome the economic crisis. Many of the full-time interviewees experienced telework for the first time after the outbreak of the COVID-19 pandemic. Respondent 4 was one of these mothers, she had to stay with her three children and telework for the first time since she started her career. Respondent 4 described this phase in the following manner,

“No one of us at home or at the organization I am working at was prepared, especially during the first wave when there was a complete lockdown and we had to spend all day with our kids and spouses. I felt that the world pressed the pause button and despite feeling a little messy at the beginning, everything seemed to get better by time, especially having time for my kids.”

(Respondent 4, June, 2021)

Respondent 13 had the same feeling. She commented by saying,

“I never thought that one day I would be working like this from home. Everything happened very quickly that we thought we couldn't do it, but in the end we adjusted and I was happy to stay for more time with my kid at home.”

(Respondent 13, July, 2021)

The main reasons for following the telework approach after COVID-19 was social distancing and overcoming the economic impact (Eraso & Garces, 2020), but in fact, mothers reported many additional outcomes. Feeling more relaxed or not “running,” as Respondent 4 described, is a luxury that most working mothers lack, from the daily preparation of sending their kids to school, to running to their job and coming back home for meal preparation and homework, many mothers feel they are torn, stressed and dissatisfied. Mothers of young children who experienced working from home reported many positive outcomes (these will be discussed in more detail in the Outcome section). Not experiencing the “mom guilt” that they had grown accustomed to feeling during long commuting hours leaving their kids was a relief during their stay at home.

Following the flexible approach of home-based work to control the spread of the coronavirus came as a shock to many mothers. Many described the setup as very exhausting for them, indicating their lack of preparedness to stay home with their kids and spouses for extended periods of time. For the most part, they believed that things would be better if both their children and spouses were not at home during teleworking. This was particularly the case among mothers of 5-12 year-olds, as home schooling became an extra burden for them to keep up with. Respondent 21, a mother of a five-year-old boy working as a communication consultant at a private company, expressed her concerns,

“It all came suddenly and I was not prepared, you can’t imagine how difficult it is to stay sane with online home-schooling sessions, non stop needs by my toddler and a grumpy husband who is working remotely and feeling bored (...). Telework now is the norm, I got used to it and thank God my kid goes to school by now (...) I would have been happier if I had a baby, not a toddler that can’t sit for five minutes.”

(Respondent 21, August 2021)

Most of the women interviewed that previously worked full-time had never been exposed to teleworking. In the beginning, the concept seemed odd and hard to manage, especially when compounded by government mandated school closures. This added to the gender gap problem and the un-even division of roles with respect to un-paid domestic work that mothers already suffer from (OECD, 2020). Respondent 2, being a single mother with two kids, expressed feeling that she is carrying double the load on her shoulders. She communicated her concerns of staying

all day in lock down with her children and described how hectic it was. Respondent 25, a mother of a six-month baby and a five-year-old, said that things would be much easier for her if her five-year-old was at school and she stayed home caring for her baby only. Respondent 16 also reported the same concern, discussing her children's expectation that she would be available all day long and the challenge of making them understand that their mother needs time to work. Most of the employees reported that neither they nor their organization had any experience in teleworking, but the new situation became a fundamental factor influencing the emergence of teleworking (Eraso & Garces, 2020). Overnight, it became the "New Normal" for employees, their families, and the organization.

Manager 3, a health, safety and environmental manager, reflected on this point in reference to the organization by saying,

"The organization has never seen this coming, pandemics were never part of any of our plans, we had business continuity plans related to earthquakes and floods and they usually involved moving to a new premises, but shifting completely to telework was not planned."

(Manager 3, August 2021)

This sudden and unpredicted environmental change also affected working mothers tremendously, most of the interviews reported that the case before the coronavirus pandemic differs from the current case in many aspects. Respondent 28, a mother of a boy aged six working as a coordinator in a communication company, reflected on this issue by saying,

"Having background noise while in a meeting is becoming normal, my manager got a sense of how hectic it is to deal with a toddler while full-time teleworking. The new normal working setup changed and flexibility became the key so that the ship can float."

(Respondent 28, August 2021)

Manager 1, being a manager of almost 13 females and having to run meetings with them, faced the same situation,

“At the beginning it was not comfortable, it took us some time to absorb, but we got used to it by time we would be in the middle of a meeting and have to say hello to one of the employee’s kids.”

(Manager 1, September 2021)

Respondent 23, a mother of seven-year-old twin girls had the same comment; she described the situation of home schooling with telework during the pandemic as messy. She added that she believes these circumstances have presented a good opportunity for managers and organizations to accept and adapt to the unique challenges faced by mothers, and that professionals also have a personal life that must be accounted for. Interviewees reported that before the pandemic, they felt compelled to keep their personal lives hidden, but the pandemic changed this dynamic, as the two spheres of professional and personal overlapped. This overlap gave a glimmer of hope to many mothers with respect to how their professional lives after Covid-19 may be (Couch et al. 2020). Having more flexibility and acceptance of their situation is what working mothers strive for. Given the unpredictability of motherhood and family life, flexibility is key for mothers. Most mothers said that managers are now more accepting of their employees being interrupted by their children, and expect that even after the pandemic is over that more flexible regulations will remain for mothers (regulations and policies will be discussed in the Process section below). Manager 3 sees that the reality of motherhood was exposed as a result of the coronavirus and the obligatory social distancing regulations that were enforced. Respondent 4 confirmed having the same experience during her teleworking days, her online meetings usually had background noise of her children and her manager would allow her to take more breaks to keep up with the home-schooling sessions for her two older boys. The pandemic shed the light on many burdens, challenges and gaps that mothers tend to face on a daily basis. Normalizing telework made it possible for women to communicate these challenges openly and expect others, including managers, to understand and validate their circumstances. It also allowed more women to experience this new flexible approach on a large and unexpected scale, regardless of their job type, family situation or marital status.

The interviews shed light on a very important aspect, the drivers that motivate the mothers to adopt telework are not exclusively independent. In fact, in many cases, a mother would have one

or more variables leading to the emergence of the other. Single mothers for example can suffer from the inability to afford sending their children to a childcare facility and suffer from the traditional expectation that this duty should fall on them. The choice of the job characteristics and type can be influenced by the type of family and whether the main provider is the husband, with the wife's job considered as secondary, or if they are a double-earning family. Although the mass testing of teleworking occurred as a result of the pandemic, it is believed that both mothers and organizations in general will rely on a wider adoption of telework after the crisis (OECD, 2020). The pandemic gave an opportunity for all mothers, regardless of their employment sector, family setup, age and number of children to experience telework. This will allow women to have more opportunities in the labor market and again reflects on the role of mothers and the uneven distribution of childcare responsibilities between the mothers and fathers (Alone et al., 2020). The drivers discussed in this section may overlap or lead to one another. They can all act as direct motivators or be one of the reasons behind unemployment of mothers. The same drivers that lead to the unemployment of mothers can also be the reason behind choosing telework.

6.2 The process

After identifying the drivers and motivators for implementing telework, and in order to ensure its proper application, the variables that interfere with the process of telework must be identified. There are two main variables that should be provided and available to ensure the effective application of telework: **ICT** and **Policies and Regulations**.

6.2.1 Technology & ICT

After the coronavirus outbreak and the widespread adoption of telework an obvious gap emerged in the availability and usage of technology in Egypt. The effect of this gap appeared within three main pillars according to the research; namely teleworkers, organizations, and the national infrastructure. The availability of **ICT** and the needed **hardware** and **software** to effectively carry out teleworking became a requirement rather than a luxury. As mentioned above in the section on “Environmental Drivers,” the application of telework after the coronavirus was sudden and unplanned. Many of the mothers reported being introduced to work procedures that involved the presence of technology.

Using technology to perform their jobs outside of the office required integrating a number of different hardware and software technologies to ensure the timely and satisfactory delivery of their work. Respondent 10 explained this by saying,

“I was able to sync my email to my cell phone so I can receive notifications at any time. This helped me to move around the house, finish the needed chores and spend time with my family without the need to be staying on my laptop for long hours.”

(Respondent 10, June 2021)

The availability of new technologies made it easier for mothers to perform any needed task from home. Respondent 15 reported having the same experience where she connected her smart phone to receive notifications from her manager and be able to work on them immediately. Other mothers reported flexibility in scheduling their tasks and meetings according to their preferences while working at home. The presence of different hardware technologies such as smartphones and webcam-enabled computers were the main reason behind the success of telework during the pandemic (Vargo et al., 2020). Software technologies were also very important as denoted by both mothers and managers interviewed for this study. Zoom meetings and other programs such as Google document sharing, and cloud servers were very beneficial for working mothers. Respondents 5, 10, 18, and 2 all stated that informal technologies such as social media outlets including Facebook and WhatsApp were also used for professional purposes during the pandemic. Respondent 24, a manager at a public institution managing small and medium-sized enterprises SMEs, mentioned the importance of emails for communicating job tasks between the colleagues and their managers. Manager 1 listed other programs, such as Microsoft Teams and Cisco for video conferencing, as they became very important for the success of telework implementation and reaching assigned KPIs (Vargo et al., 2021)

In addition to hardware and software, telework requires the availability of a strong internet connection to guarantee the timely and complete delivery of tasks and information between employees and organization. Some mothers reported that they suffered from technological turbulence during the pandemic. Respondent 4 commented on this issue by stating:

“The organization did not provide us with laptop computers as we are used to working on PCs at the office, I had my own laptop at home that I would use (...) Internet connection at home was disastrous. I felt that all the people in Egypt were using the internet at the same time and therefore my home connection is horrible.”

(Respondent 4, June 2021) Respondent 2 also expressed her suffering from poor internet connectivity,

“My two kids are attending their online sessions and I am downloading files for work. Can you imagine how slow the internet connection was?

It was expected, the internet in Egypt is a total failure in normal days so we all expected this mess during the pandemic time.”

(Respondent 2, June 2021)

Respondent 25 also complained about the IT infrastructure and services provided by the government by saying:

“People around the world are using new technologies like 5G and Egypt is still behind by ten years. There should be a serious action taken, how can we be in the year 2021 and the internet is the problem.”

(Respondent 25, July 2021)

The fragility of the IT infrastructure was exposed during the pandemic. During the interviews all mothers who were teleworking throughout the initial lockdown had the same complaint. The process of teleworking would not take place without ICT (Vargo et al., 2020). If there is a deficiency in internet and technological services, not only telework may be affected but also other services including e-learning, e-government, online banking and online medical records, to name a few. Taking action by enhancing the IT infrastructure and investing in new tools can boost the teleworking process and ensure effective implementation of the approach (W. HE et al., 2021).

Working on reducing technological barriers is not exclusively the responsibility of the government. As previously discussed in the environmental section, the pandemic made telework a national obligation and not all companies were prepared technologically, as the mothers expressed. Respondent 13, a mother of a five-year-old toddler explained this matter with the following quote,

“We were not provided with laptop computers and the company was not prepared with a system that can be used remotely. Therefore, we had to do part-time work at the office instead of full time teleworking. The company allowed women with children less than 12-years-old to come only twice per week.”

(Respondent 13, July 2021)

This issue was faced by other mothers and managers like Respondents 15, 16, 10, 3, 5 and 7, who all had to use their personal laptop computers at home instead of being provided with one. Their companies also did not have access to many programs and software and they had to pay to access them. It is clear that paying extra attention to ICT and the IT infrastructure is of great importance. Boosting online communication and technology supported platforms is the basis and fundamental foundation to guarantee a breakthrough in teleworking (Baert et al., 2020).

Working on a digital transformation project supported by the Egyptian government, Manager 1 stated that the digital transformation of ICT systems in Egypt was prioritized as a top project beginning in 2019. This included working on making Egypt paperless and providing citizens with easy and sustainable services. After the pandemic, the process of implementing the transformation accelerated to keep up with the new situation.

Technology did not only allow the presence of telework, but it was used as a means of measuring the productivity, attentiveness, and responsiveness of employees toward assigned tasks. Respondent 15 explained this by saying,

“Me and my colleagues were very productive, we would finish all the assigned tasks and our manager would follow up as he had access to our emails and was able to track and supervise us.”

(Respondent 15, June 2021)

Respondents 4, 10, 16, and 29 all reported the same when asked about how their managers would measure their productivity and how the process of monitoring took place. Managers would mostly track their finished tasks to be sure they are working effectively and remaining productive. Managers interviewed said that they focused on tasks and measured productivity by the number of tasks done instead of the timing and number of hours spent.

6.2.2 Policies, Policy Makers and Governance:

The second most important point that needs to be tackled regarding the process of telework is the policies and regulations set by policy makers to facilitate the implementation of this approach. The growth and spread of telework worldwide and in Egypt was a result of social distancing policies. Therefore, policies are a valuable component of effective implementation and play a fundamental role in the current status as well as the future of telework for mothers.

Although most institutions and entities issued remote working policies to overcome the economic downturn of the Covid-19 pandemic, there are many others that were not able to follow suit. Respondent 22, a mother of two boys aged five and eight who recently resigned after the coronavirus pandemic, explained her situation,

“Unfortunately after the lockdown was removed the organization found it very difficult to continue to operate remotely and asked mothers to come to work at least twice per week, which was very difficult for me as my two kids were still learning online and I needed to stay with them (...) The whole situation was very unstable and no one knew if a new lockdown policy would be mandated.”

(Respondent 22, August, 2021)

The instability and unpredicted policies and regulations that were implemented in early 2020 during the beginning of the pandemic placed many mothers in great distress and led to increased unemployment among mothers in fields that required F2F interaction (OECD, 2020).

Respondent 25 and 11 communicated the same concerns, since their job requirements involved both types of interaction depending on the task (some requiring F2F and others that can be done remotely). They were afraid that these regulations would mean losing their jobs for good. In the end, Respondent 11 felt relieved when she was only assigned the tasks that needed to be performed remotely, as she was pregnant at that time and was afraid of the coronavirus.

Policies and regulations mandating telework as an alternative approach had another implication. As previously discussed in the Environmental and safety driver section, the pandemic made many institutions and businesses more aware of the different roles expected of women outside the context of work, especially those related to childcare. At the beginning of the pandemic, the government forced a total lockdown and consequently allowed mothers to stay home with their children under 12-years-old and teleworking policies were applied. Respondent 29, a mother of a one-year-old child, expressed her deepest gratitude to this new policy by saying,

“This was the first time that I felt that the government and the organizations in Egypt are even aware of our roles as mothers, my organization refused following teleworking techniques and urged mothers to work from the office, but then the new policies mandated by the government forced them to follow and I was very happy as I was worried about my child”

Respondent 30 also commented by saying,

“I am glad that finally flexible working techniques are not seen by organizations as used by employees to abstain from doing work properly. I think that after the pandemic is over and everything is back to normal most organizations will begin applying teleworking policies for people who need it, like mothers for example.”

(Respondent 30, June 2021)

Most of the mothers interviewed stated that they believe that these policies will remain after the pandemic. Adopting smarter options and updating the technologies to upgrade the telework experience and increase productivity among employees are all confirmed to be among the new policies instated by organizations in Egypt (OECD, 2020). The policies implemented during the pandemic are described by many mothers who benefited from them as the “magical formula” that exposed the reality of motherhood, and they believe that organizations will respond in the future with more flexible work schedules and teleworking options for mothers. Managers at different organizations believe that policies will be set according to the job description and the nature of the organization and industry.

Both technology and appropriate policies are vital in the widespread and successful implementation of telework. The process of telework is totally ineffective and useless without the application of up-to-date technologies and proper policies that cater to the different stakeholders, including employees.

6.3 The Outcomes

After the drivers compelled mothers to implement or adopt teleworking and the process paved the road to efficiently implement telework, various outcomes were reported. This study focuses on outcomes that are solely related to the segment of the population under investigation, namely working mothers. Therefore, all interviewed participants, even the managers, reflected on the outcomes in reference to working mothers. Personal outcomes from teleworking can vary, but there are a set of outcomes that seem to uniquely impact working mothers in particular.

6.3.1 Work Life Balance

As discussed earlier in the demographics section, childcare and domestic work, also known as “unpaid” work, seem to be one of the major burdens facing mothers who are either seeking employment or already employed. After the mass application and testing of telework across different sectors, mothers identified several positive outcomes of the new technique related to the ability to balance their different roles and feel less stressed.

“I finally have time to take care of my children, cook their favorite meals, and on top of this all finish all my work tasks on time (...) feeling less stressed and finding a solution for the conflicts between my home and work was very draining mentally and physically.”

(Respondent 20, August 2021)

Moreover, Respondent 10 added her experience by saying,

“At last I am not moving in circles all day. The day feels more relaxed and less jammed, and this definitely reflected on my attitude with my children.”

(Respondent 10, June 2021)

These quotes and other reflections from mothers show how they were able to better manage their life, overcome the usual WFC and FWC that arise from full-time office work. As described by the managers, family friendly policies and techniques such as telework reflect on the overall wellbeing of employees and lead to WLB (Feeny & Stritch, 2019).

Being available for their kids was definitely the top benefit for many mothers, who had always suffered from the consequences of being inattentive and spending little to no time with their young children. Respondent 4 was one of the mothers who reported positive feedback,

“It was the first time in years to spend all this time with my three boys, I felt that everything slowed down and I am not running like I used to. My youngest was very happy he even got better with his speech delay as the doctors said he only wanted his mother to be near him and finally I was able to be near.”

(Respondent 4, June 2021)

In addition to having time for their homes, families and kids, mothers also stated having more time for themselves and taking control over their life,

“Now that my kids are back to school, I get some time for myself. I am able to schedule my meetings to be more compatible with my children’s time, which I find great. I can take my laptop to the nearest coffee shop and work there, I can take a walk in my free time or read a book.”

(Respondent 11, June 2021)

In the interviews, mothers expressed how their stressful and hectic day deprived them from having some time for themselves, especially if they had to commute daily to work. This had a negative impact on their capacity and tolerance to manage their responsibilities.

6.3.2 Productivity and Job Satisfaction

Having a sense of autonomy and the ability to resolve the infamous WFC and FWC definitely affect productivity and overall job satisfaction of working mothers and, consequently, the organizations.

With the ability to manage their life and achieve balance, managers within different sectors believe that this improved overall productivity,

“I must admit that during the pandemic mothers tend to report the highest productivity and achieved all the needed KPIs”

(Manager 2, August 2021)

In fact, all the managers interviewed had the same comment regarding an increase in productivity of their employees. They believe that the overall enhancement in the wellbeing of mothers that resulted from telework allowed for better productivity (OECD, 2020). Managers also stated that as a result of overcoming conflicts related to their guilt as moms and their roles at home lead to an increase in their satisfaction and thus an increase in productivity (Baert et al., 2020).

Mothers who experienced telework also reported feeling that it had a great role in their productivity spike. This was articulated by Respondent 26, a mother of two toddlers, working as a part-time employee,

“I used to waste around 5 hours daily between getting ready, driving my kids and traveling to work and back. I was gladly able to exchange all this time for more work and I was able to be more productive.”

(Respondent 26, August 2021)

Commuting time, family and domestic duties were all hindering the productivity of mothers. These variables drained their energy and left them feeling helpless. People often expect any successful or productive woman to be failing in her role as a mother. Society has influenced how the managers and employees perceive mothers in the labor market. Some of the female managers discussed how they would find it difficult to prove themselves in high position and properly maintain their home.

With the help of new family friendly flexible telework approach applied after COVID-19, mothers can prove they can excel in both. As a result of the increase in overall satisfaction, many working mothers now are questioning if they would choose to return to full-time office work in the future, justifying this by explaining how happy they are with the current situation. Working in a hybrid mode, where employees are required to be present only once or twice per week was also suggested by many mothers. Different flexible working techniques can help mothers maintain a stable working pattern, which would help facilitate promotions and guarantee normal salary increases (Steiber & Haas, 2012)

6.3.3 Empowerment

Employment in general allows for the economic empowerment of women, and since teleworking provides an alternative working technique for women and mothers with more responsibilities, it is clearly a tool toward achieving empowerment. In this sense, mothers expressed how teleworking can contribute to their empowerment,

“Financial independence is very important for every mother, you secure yourself and your dignity by financial stability and independence. My experience after the divorce and separation

made me realize how important it is to work and gain a stable income although it seemed impossible for me after spending many years only taking care of my children.”

(Respondent 2, June 2021)

Respondent 15 also believes that being financially secure is very important for women, commenting,

“No one is one hundred percent sure about the future, you never know what life holds for you or when you shall need this money. If it is not for you, your child will need it. I personally think that with the current increase in prices every household will turn into double-earning families just to cover the expenses of daily life.”

(Respondent 15, June 2021)

Respondents 2, 15, and other mothers reported that being single or married does not matter, articulating the importance of feeling financially independent. Educated mothers tend to look for financial empowerment and the feeling of having control over their life financially, even if they depend mainly on their spouse's income. Mothers emphasized the importance of keeping savings for the future or pampering yourself when you need to. Economic empowerment, as mentioned by the managers, is important for the GDP of the country and to promote economic development, which is particularly important these days following the turbulence of the first wave lockdown of the coronavirus in Egypt (World Bank, 2018).

Social empowerment is another form of empowerment that women tend to benefit from as a result of gaining power and control over their lives. Manager 3 reflected on this by saying,

“Women need to feel powerful; it is their right to be a powerful part of the society and the labor force just like being irreplaceable at home. Women tend to feel more discriminated against than men and this is not good for society by all means.”

(Manager 3, August 2021)

Employed women enjoy better rights, status and are able to develop themselves on a professional level just like their male counterparts and this is a significant promoter of equality (Mandal, 2013). Telework can support the pursuit of equal rights and ensure social empowerment for women.

In addition to economic and social empowerment, another form of empowerment that is considered essential is psychological empowerment (Mandal, 2013). The sense of autonomy that mothers tend to acquire as a result of teleworking not only facilitates economic and social empowerment, but is also a main key toward independence and empowerment on the psychological level. The effect of teleworking in reference to psychological empowerment was discussed by many mothers. For example,

“Having a stable job provides me with financial stability, I am able to have control over my life. Being employed is of course very important for any woman, at least no one can ever oppress her and this may lead to giving her power over her life.”

(Respondent 3, June 2021)

Respondent 8 discussed the same issue from the manager’s point of view by stating,

“A relaxed mother is a satisfied mother! We as managers and supervisors must work on providing mothers with the working conditions that ensure their wellbeing. They need to feel more flexible and in control to perform better.”

(Respondent 8, June 2021)

The feeling of stability, taking control over income and life, and being involved in major decision-making leads to the empowering of women psychologically (Mandal, 2013). Psychological empowerment is essential and usually takes place as a result of achieving social and economic empowerment. Women’s self-worth increases as a result of being employed; they add value to society and inspire other women to succeed in their lives. Psychological empowerment does not only affect working mothers, but eventually reflects on welfare of their children and their marriages, managers claim.

6.3.4 Decrease in Unemployment Rates

The positive outcomes that female employees experienced after implementing the telework approach during the pandemic had a great impact on how they perceived their career life in general. Both mothers and managers reported a decrease in turnover rates. Mothers felt that there is a way to excel in both roles, and therefore, there is no need to prioritize their family and leave their jobs,

“If I am able to manage both my roles as a mother and as an employee, why would I think of quitting my job? I think organizations in Egypt should work on promoting better working conditions and flexibility for working mothers to decrease the turnover rate.”

(Respondent 21, August 2021)

Respondent 24 also commented according to her view on this issue,

“Women need less bureaucratic and more flexible working conditions. They need to feel heard and get approval and support from their organization and when this happens the employment rate will increase.”

(Respondent 24, July 2021)

There is a global movement toward supporting and empowering women, and Egypt is working on following the lead. Governments are now encouraging and supporting mothers (ILO, 2020). Moreover, according to the interviewees, organizations at this moment are more welcoming to the idea of teleworking and allowing mothers of children under 12-years-old to telework. Organizations are being incentivized to support women and this is considered by many mothers to be a great opportunity (ILO, 2020). Subsequently, the interviewees suggested that mothers who are currently not employed will be more likely to enter the labor force with the application of telework in different sectors and organizations facilitating their presence and guaranteeing a balance between their child and family care and their careers. Enjoying flexibility and being able to control the place and time of work will decrease the WFC, increase satisfaction, empower

women and eventually encourage them to stay at work (Chung & Horst, 2018). The decrease in unemployment rates of women will promote GDP growth, decrease poverty and support two pillars in Egypt's Vision 2030; namely the economic development and social justice pillars (UNDP, 2018).

Chapter Seven

7. Conclusion and Recommendations

Telework is a vastly growing flexible work technique worldwide. With the recent emergence of the COVID-19 pandemic, it is suggested that institutions will increasingly adopt this technique to ensure social distancing and curb the consequences of F2F interactions. Egypt is one of the countries that started to implement telework on a larger scale, particularly after the implementation of new regulations by the government. Moreover, with the recent plans and goals identified by the Egyptian government in Egypt's Vision 2030 to empower women on different levels, including economic empowerment, it is crucial to identify ways that can help women excel in their career and become economically independent.

This study aimed to identify how flexible working techniques, and telework specifically, can help working mothers to be present and continue their careers in an attempt to decrease the unemployment rate of females in Egypt. Moreover, the study aimed at filling a gap in the literature, as although there were numerous studies reflecting on telework before and during COVID-19, the case of female employees and especially educated working mothers in Egypt has not been deliberately acknowledged or studied. Although this is an important area of study given the significance of women's labor force participation for the society and Egypt's economic growth, this area of study remains unserved.

Studies show that increased employment of females results in GDP growth in Egypt (World Bank, 2018). Therefore, the study reflected on the case of educated Egyptian mothers, as it is reported that they tend to face inequalities and a lack of workplace accommodation that hinders them from either entering the labor force or continuing to work after childbirth. There was another obvious gap related to the case of Egyptian working mothers in reference to their employment status, the challenges they face in work, and their needs to ensure their continuation in the labor market.

The research includes an extensive review of the existing literature as well as collecting empirical data using qualitative methods; namely one-to-one in-depth interviews. The literature examines the effects of telework on working mothers, acknowledges the employment pattern for women—especially after marriage and with childcare—and highlights the advantages and

disadvantages of telework on working mothers. The study identifies different factors that affect the viability of telework such as technology, demographics and job characteristics, as well as recognizing the role of policy makers in the process of promoting and implementing telework techniques. This addressed the question related to how policy makers can help in the telework implementation process.

Using primary data, the answers to the research questions were obtained. By understanding the relationship between flexibility and the ability to maintain WLB and work on decreasing the WFC or FWC that arise from competing interests between the work and family domains; telework can be used as an approach to facilitate the presence of educated mothers in the labor force, helping them overcome the challenges they face. This addressed how telework can help mothers overcome the challenges posed by their responsibilities.

In light of the COVID-19 pandemic, and after the mass testing of new flexible work techniques, the researcher considered it a great opportunity to interview mothers and managers and get acquainted with their own experiences with telework. Respondents in the study reported that COVID-19 exposed sides of motherhood that were never expected to be shown, as it has traditionally been seen as unprofessional to communicate your personal life or concerns. Surprisingly, this diminished significantly after the new work from home regulations as managers, colleagues, and spouses became more acquainted with the responsibilities that mothers bear. Moreover, Egypt's patriarchal culture and how society shapes the perception of women participating in the labor force is expected to change completely as a result of current changes taking place both in the society at large and in the nature and design of work.

Educated mothers were interviewed based on a number of demographic variables. Managers of female workers also participated in this study. This allowed the researcher to understand and answer the question related to how COVID-19 has impacted the utilization of telework. There are many fields and aspects of life affected by the recent pandemic and thus, it is essential to study and reflect on what has become our "new normal". Telework became commonplace within many organizations and among workers in Egypt and the rest of the world. There are even some organizations that are currently studying more options to allow for the continuity of telework after the pandemic is over. This may open new opportunities for mothers who want to re-enter the labor force, allowing them to maintain both their careers and their maternal responsibilities.

Since there is an obvious positive correlation between the implementation of telework and the presence and continuation of educated mothers in the Egyptian labor market, the study was able to identify factors or motivators that may affect the proper implementation of telework practices. The study also unpacked the processes or techniques needed for telework application and finally the outcomes of applying the telework system. The following section will provide a quick review of the findings in reference to the three main themes.

The first theme identified are the drivers or motivators behind the successful implementation and use of telework by educated working mothers. Surprisingly, these were the same reasons or variables behind the unemployment of educated mothers. An example for these drivers would include demographics such as the number and age of children, as mothers reported having difficulties balancing between their jobs and childcare responsibilities and in these cases teleworking can aid women in balancing both roles. Another driver is the job characteristic or the type of job, given the fact that not all jobs can be performed remotely and need F2F interactions. The third driver is the environment and safety, since the emergence of COVID-19 aided the recent spread of telework across different sectors. This allowed women to be present in occupations that used to require more F2F communication.

The second theme discussed the process, tools or variables used to effectively implement teleworking. An example of this is technology, which has proven its importance as the key factor influencing the presence and success of telework. ICT and technological facilities cannot longer be considered a luxury. Both the government and organizations should work promptly on enhancing them to facilitate the process of telework without interruption such as poor internet connectivity or the unavailability of portable computers. Regulations, policies and laws set by organizations and the government are also very important as they not only facilitate the implementation of telework, but also ensure the stability of the process and secure positive outcomes of telework.

The third theme is the outcome, after the coronavirus pandemic and teleworking technique being mandated to ensure social distancing; mothers were able to communicate the outcomes. One of the most important outcomes is the ability to manage their roles as mothers and employees. WLB is one of the reported outcomes by many mothers and managers. An overall increase in job satisfaction and productivity are also outcomes of telework reported in the study. Another expected long-term outcome of telework implementation is the decrease in

unemployment rates as mothers are not inclined to leave their young children or look for supplementary support such as help from family members or expensive day care facilities. Securing a job and maintaining the career path by mothers can help in reducing the gender gap. Increased empowerment and equality are also on top of the list of expected outcomes that will arise from applying telework for working mothers. Outcomes surely may differ from one sector or type of job to another, public and private organizations may act differently to the process of telework.

The nature of telework changed drastically after the emergence of the COVID-19, women and specially mothers were greatly affected by the new situation. This thesis study focused on how the new technology supported flexible work techniques can affect the presence and continuity of educated mothers in the labor force and its effect on the decrease in the gender gap.

7.1 Recommendations

According to the findings and analysis of data, telework can allow for the presence and continuation of educated mothers in the Egyptian labor force. Therefore, working on normalizing teleworking for mothers might be the solution to the WFC and the FWC dilemma and the responsibilities that women, and specifically mothers, have to shoulder. Telework is no longer considered a fancy technique that is only confined to a small group of people. The pandemic showed that it can be applied on a wider scale across different organizations and job types. Unpaid work, including childcare and household domestic responsibilities, lead to an obvious reduction in paid work possibilities for women. Therefore, looking for alternative approaches that make it easier for women is recommended. Highly educated women are already well acquainted with the recent and vast spread of technologies. Moreover, there are new technologies created everyday to keep up with the needs of humankind. Investing in opportunities and normalizing the use of technology for telework and remote working is highly recommended. Encouraging women to complete their education and excel in their career life is also becoming of utmost importance.

Egypt must work on facilitating telework to keep up with the current global climate and to achieve the designated goals and vision of the country (in accordance with Egypt Vision 2030). Empowering women through providing new job opportunities and allowing them to integrate family demands with work-related ones will be a total game-changer in the future of female

employment. Expanding the research on new technologies such as telemedicine, robotics and other mobile technologies that facilitate the presence of mothers in the labor force is tremendously important. Mothers need to express their concerns and speak openly about their needs. Policy makers and managers also need to listen carefully to working mothers and identify new ways to avoid their exclusion from the labor force. Most respondents suggested allowing new hybrid working techniques where both remote and in-office work is allowed, and mother are permitted to work remotely when necessary.

The following recommendations are suggested by the author to facilitate and ensure the effectiveness of the approach. Since telework is a system that needs more than one stakeholder to ensure its success and proper implementation, the recommendations section is split into three parts relating to the main three stakeholders, which are the employees, organizations, and the government.

7.1.1 Employees (Educated Mothers)

Highly educated mothers should maintain their right for employment, equity and empowerment. Since highly educated mothers are more acquainted with technology and tend to work in white-collar jobs, they are more likely to benefit from telework. Therefore, they need to search for tele-workable jobs especially those mothers who are caring for their young children and need more time to overcome FWC and WFC. Moreover, it is essential to develop themselves by attending workshops and training. Communicating their concerns and complaints is a key factor to allow for developing a system that works and takes into account their responsibilities and thus, ensure the spread of telework across different sectors.

7.1.2 Organizations

After the emergence of the pandemic, organizations were significantly affected and as a result working on facilitating the presence of telework became fundamental. It is recommended that organizations set new business continuity plans that involve the use of telework to overcome any future barriers. Employers must enhance IT tools and provide employees with the needed hardware such as laptop computers and software to work properly. Ensuring the well-being of employed mothers working as teleworkers can help increase productivity and overcome the disadvantages of telework including the feeling of isolation. Organizations need to set clear

policies in reference to teleworkers' promotions and income to guarantee equity between workers. Allowing access to hybrid work to provide more flexibility to workers who can take advantage of both working modes (office based and telework) is important. The hybrid technique will allow mothers to work from home when needed instead of taking long maternity or childcare leave. Organizations also need to provide workshops and training for employees who are willing to shift to telework. In addition, managers in the organizations need to communicate the concerns of teleworkers, and mothers in particular, to the organization and work on enhancing the experience of telework.

7.1.3 The Government

The government in Egypt needs to set new laws and regulations normalizing telework and flexible work for mothers with children under 12 years of age after the pandemic is over. The recent change in the nature of work and social distancing regulations requiring the closure of daycare facilities and schools shed the light on the role of women with young children and the amount of responsibility they bear. Another critical point that the government needs to plan properly to keep up with the current changes is to accelerate the digital transformation in Egypt. The process needs to speed up to catch up with innovations worldwide. The IT infrastructure needs enhancement, and the government should continue to invest in stronger internet connectivity as an essential component of the country's development. In addition, the government should encourage women through governmental campaigns and programs to work and find flexible alternatives that can ensure their presence in the labor market. Encouraging women and mothers in particular can also take place by equalizing payment and income between teleworking and non-teleworking colleagues, as this would attract more females and ensure gender equality. Research on new techniques to facilitate flexibility and the presence of women and mothers in the labor force on a larger scale including telemedicine, digital clouds, and robotics is essential. Identifying new economic opportunities for mothers and ensuring their empowerment is also considered a very important area of study for the government to work on. Lastly, facilitating the presence, and paying allowances for daycare facilities and nurseries across the country is very important.

The above recommendations can aid enormously in the process of implementing telework across different sectors targeting educated mothers in Egypt. Moreover, they will help in

overcoming any disadvantage that would arise from applying telework in the future. Further studies on the effect of teleworking on other stakeholders including children, spouses and other family members can be taken into consideration. In addition, studying the new emerging technologies in Egypt and their effects on the proper implementation of telework for mothers would be a very interesting area for future studies. This study took place shortly after the mass testing that took place for telework, a detailed further study on the future of telework post-pandemic is recommended.

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Annex 1

Interview for Educated Mothers

Good Morning/ Afternoon, this is Sarah El Ashry a Student at The American University in Cairo. Thank you for participating in my interview, this study is to understand the advantages and disadvantages of remote or teleworking for mothers. Your identity will be kept confidential and please feel free to ask for removing any information from this interview

- 1- Introduce yourself
- 2- Please share your field of work
- 3- How long have you been working, teleworking?
- 4- Can you explain your work flow, system and timings?
- 5- What are the major changes that happened to your personal and career life after giving birth?
- 6- How old are your children, and number of children?
- 7- (In case the child is older than 5 years) Do you think admitting your child to school can allow you work at a full time job again?
- 8- What are the challenges you met with working?
- 9- Describe your own view of flexibility at work?
- 10- What are the variables that determine choosing teleworking?
- 11- What are the challenges you met after COVID-19?
- 12- How did your work respond to the new COVID-19 pandemic, did you shift to telework? If yes, what are the challenges you met with teleworking?
- 13- Do you usually work from home only?
- 14- What are the advantages of teleworking from your point of view?
- 15- What are the disadvantages of telework from your point of view?
- 16- Work is crucial for you because? (please explain if you are helping your family with spending or any other reason)
- 17- Do you get social and medical insurance as a teleworker?

- 18- If your work provide a kindergarten would you choose a full time job instead?
- 19- Does your job pay for your internet bill or your laptop?
- 20- Describe the different hardware and software used for teleworking at your job
- 21- Describe your promotion pattern while remote working or teleworking?
- 22-Do you believe that teleworking helped you with your work life balance specially with kids
- 23-How does your spouse perceive your work?
- 25- How did your manager respond to telework, how was the surveillance during telework?
- 24-With the current situation (the pandemic) do you believe that more companies will focus more on teleworking?
- 25-Do you usually get any help from your family members or how you managed to get back to work?
- 26-Now that you had the chance to test teleworking, would you choose to continue remote working after the pandemic is over?

Annex 2

Interview for Managers

Good Morning/ Afternoon, this is Sarah El Ashry a Student at The American University in Cairo. Thank you for participating in my interview, this study is to understand the advantages and disadvantages of remote or teleworking for mothers. Your identity will be kept confidential and please feel free to ask for removing any information from this interview

- 1- Please introduce yourself
- 2- What is your current position?
- 3- How many female workers at your company?
- 4- How can you explain the shift that happened at your institution to telework after the COVID-19?
- 5- What are the main challenges you faced as a manager and the company had to face?
- 6- Explain the main regulations and plans the company had to set for mothers
- 7- Explain the working pattern for mothers
- 8- Does your entity support a day care for female workers?
- 9- How do you explain the performance of working mothers during the pandemic?
- 10- How did you manage to abide with proper surveillance during the pandemic?
- 11- What are the upcoming plans after the pandemic is over?
- 12- What are your recommendations for remote and teleworking?