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

**Inclusive Employment
for Persons with Disabilities Post COVID-19 in Egypt:
Digitization as the Way Forward**

A Thesis submitted to
Public Policy and Administration Department
In partial fulfillment of the requirements for
Master of Public Administration

By Rana Al-Gazzaz

Under the Supervision of Dr. Laila El-Baradei
Professor of Public Administration

SPRING 2021

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

**Inclusive Employment
for Persons with Disabilities Post COVID-19 in Egypt:
Digitization as the Way Forward**

ABSTRACT

The COVID-19 pandemic has taken a heavy toll on businesses and jobs whereas many employees were furloughed and laid off. While the global pandemic had a significant negative impact worldwide, it presented a unique opportunity to revolutionize employment for persons with disabilities. Employers' willingness to rapidly adapt to the changing work environment by transitioning businesses to remote work and flexible working schedules can facilitate an inclusive work environment for persons with disabilities, especially in communities that also face significant geographical barriers to access employment. The aim of this study is to understand the underlying challenges facing persons with disabilities in the workforce, and explore the extent COVID-19 pandemic can reshape and create new employment opportunities for people with disabilities in Egypt with the current emphasis given to digital jobs and technology. A qualitative research in the form of in-depth interviews were conducted with 9 specialists in the field of disability inclusion in Egypt and developing countries from diverse national and international professional affiliations. The research findings indicate that there is a unique opportunity that digital jobs can offer, with a potential to overcome barriers that threaten the inclusion of persons with disabilities in the workforce and exacerbate the existing inequities and disparities that existed before COVID-19. Investing in digital technology, accessibility and skills can transform the future of work for persons of disability by introducing a new era of digital employment.

Keywords: COVID-19 pandemic, inclusive employment for persons with disabilities, Egypt, digital accessibility, digital jobs and technology.

LIST OF ACRONYMS

ADA	American Disability Act
CAPMAS	Central Agency for Public Mobilization and Statistics
CRPD	Convention on the Rights of Persons with Disabilities
DPO	Disabled Persons Organization
ICT	Information and Communications Technology
ILO	International Labour Organization
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PwDs	Persons with Disabilities
SDGs	Sustainable Development Goals
UN	United Nations
WB	World Bank
WHO	World Health Organization
ICF	International Classification of Functioning

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CHAPTER ONE | INTRODUCTION

“Employers perceive persons with disabilities as incapable, but with the COVID-19 outbreak, all of a sudden, the whole world had become disabled, incapable of going to work. The pandemic leveled the field between disabled and non-disabled persons.”

Donia, Senior Operation Specialist, NGO (personal communication, March 20, 2021)

1.1 Overview

The exclusion of persons with disabilities deprives their fundamental rights to have equal access and opportunities to integrate into society and improve their wellbeing. In figures, there are about one billion people, or 15 percent of the world’s population, who are experiencing some sort of impairment or limitation and the numbers may be higher for developing countries (World Bank, 2020). In Egypt, the Central Agency for Public Mobilization and Statistics (2017) indicates that persons with disabilities are about 10.7 percent of the total population.

Persons with disabilities face challenges and barriers that simultaneously impact the low employment rate of this segment. In developing countries, disparities in the employment rate indicate that 80-90 percent of persons with disabilities of working age are unemployed. (Handicap International, 2016). Barriers in employment include discrimination in hiring and promotion, access to skills development, learning opportunities, access to finance, physical barriers, lack of accessibility, and limited access to transport. Also, people with disabilities deal with negative stereotypes and misconceptions of employers and communities about their capabilities. Hence, this leads to the exclusion of opportunities in the workforce and discrimination against persons with disabilities. This exclusion of persons with disabilities from the labor markets has an economical cost, estimated to be between 3 and 7 percent of GDP (ILO, 2009).

While COVID-19 global pandemic had a significant negative impact worldwide, it presents an opportunity to revolutionize the way forward for persons with disabilities in the workforce. The pandemic has proven that the concept of 'Working from Home' can be achieved with the proper tools and accommodation. Employers' willingness to adapt to the changing work environment by transitioning the business to remote work and flexible working schedules can facilitate an inclusive work environment for persons with disabilities, especially in communities that also face significant geographical barriers to access employment. Technological advancements have contributed significantly to the digital economy, creating a paradigm shift of new forms and structures of work. Harnessing digital technology can present a significant opportunity for persons with disabilities to break discrimination by introducing a new era of digital employment in Egypt.

The main purpose of this study is to explore the underlying challenges facing persons with disabilities in the workforce, and the extent COVID-19 pandemic, emphasizing the potential of digital technology/jobs, increased employment rate, and created new employment opportunities for persons with disabilities in Egypt. Consequently, the main research question posed by the study is as follows: **How can COVID-19 reshape employment for persons with disabilities in Egypt?**

Some of the investigative research questions suggested, include:

- What are the challenges of employing persons with disabilities?
- To what extent can digital technologies be the way forward to close the employment gap?
- What are the best practices for creating an inclusive workforce for persons with disabilities?

1.2 Structure of The Research

This study is divided into five chapters; following chapter one, which was an introduction of the research study, also provides an overview background on disability and narrows down to the legal framework and prevalence of disability in Egypt. Chapter two focuses on previous studies that were conducted in relation to disability and employment with an emphasis on the impact of COVID-19 on employment. Chapter three discusses the research framework including the conceptual framework which illustrates the relation between the challenges facing persons with disabilities in employment and the approach for creating an enabling environment that will foster inclusive employment. Additionally, it also discusses the research methodology, data sampling and ethical consideration. Chapter four represents the findings of a number of issues that emerged from data and also discussed the principal findings. Finally, chapter five concludes with recommendations.

1.3 Disability in Context

Around one billion people of the world's population are experiencing functional limitations or impairments. The numbers are even higher for developing countries whereas 80 percent of these individuals often face social, economic, and cultural barriers that may lead to extreme poverty and exclusion from taking an active part in society (World Bank, 2020).

There is a high tendency for persons with disabilities to face multidimensional poverty compared to able-bodied as they are constantly facing social, physical and attitudinal barriers that hinder their full participation in the community and access to basic services and opportunities.

The intersectionality between disability and poverty is multifaceted by a wide range of outcomes that identifies the poverty gaps between people with and without disabilities including income, assets, education, employment, health, and living conditions. In developing countries, persons with disabilities often lack access to quality education, affecting the high rate of unemployment. Simultaneously, these factors may deteriorate living conditions and increase poverty rates (Pinilla-Roncancio, 2015).

The socioeconomic barriers that hinder full participation of persons with disabilities are mainly due to lack of access to social and public services, healthcare, education, employment; inaccessible physical infrastructure, unavailability of assistive devices and technologies; discrimination and stigma of the society's perception of persons with disabilities. Social exclusion and discrimination deprive persons with disabilities of their basic human rights of having equal opportunities to strive and fully become active members of the society.

1.4 Disability Definitions and Models

The World Health Organization (WHO) developed the International Classification of Functioning Disability and Health (ICF) to serve as a standardized framework to structure the description and language of health and health-related states across different countries and settings. The ICF classifies disability as “*an umbrella term for impairments, activity limitations, and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors)*” (World Health Organization, 2001).

Over time, there has been a paradigm shift in the definition of ‘disability’ with the attempt to understand the relationship of impairment to limitation and address the needs of persons with disabilities. There are three main types of models that have been developed:

Firstly, the *Medical Model* is an approach based on the medical diagnosis of a disabled person by which his impairment seems to be the main problem that needs to be fixed or cured. It focuses on the health condition and the disability rather than the ability of the individual. The exclusion of disabled persons is seen as a result of their impairment. Secondly, the *Social Model* mainly focuses on the society and environment rather than the disabled person. The term disability is defined by the obstacles facing a disabled in relation to the environment, including physical, attitudinal, communication, and social barriers. This model seeks integrations of persons with disabilities in society by accommodating their needs and recognizing their rights to participate in the community on an equal basis fully (United Nations Enable, 2003). Thirdly, the *Human Rights-Based Approach* was adopted by the Convention on the Rights of Persons with Disabilities as an innovative social model approach. The Human Rights-Based approach exclusively acknowledges that persons with

disabilities have the legal right to have equal opportunities and participate in all aspects of society as their non-disabled peers.

1.5 Convention on The Rights of Persons with Disabilities

In recognition of the significant importance of protecting the rights of persons with disabilities, international efforts were by the United Nations was undertaken to adopt the Convention on the Rights of Persons with Disabilities (CRPD) and its Optional Protocol (A/RES/61/106) on 13 December 2006. The CRPD serves as a comprehensive human rights treaty that commits state parties to fulfill their obligations on promoting persons with disabilities within laws, policies and development programs that will ensure their full inclusion in society. To date, 130 countries have signed the Convention, and thirty-four have ratified it and entered into force on 3 May 2008 (United Nations).

According to the Convention on the Rights of Persons with Disabilities, “persons with disabilities are those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (United Nations, 2006, p.4).

“The Convention is a benchmark document that works to ensure the enjoyment of human rights and fundamental freedoms by persons with disabilities. With other international human rights and development instruments, a comprehensive international framework is established to guide national policymaking and legislation, including international cooperation, to build an inclusive society and foster disability-inclusive development. At the international level, these instruments promote and support disability-inclusive policies and practices. At the national level, they require harmonization of national legislation, policies, and programs in line with these international norms and standards” (United Nations).

There have been several critiques regarding the CRPD in terms of the effectiveness of its implementation and participation of beneficiaries in the decision-making process. It is argued that donors and experts in a position of power usually disregard the local opinions of persons with disabilities regarding policies and programs, hence excluding their role and participation. Cornwall and Nyamu-Musembi (2004) argue that introducing the rights-based approach to development has little or no impact on the real ground unless by enabling the development beneficiaries to voice their needs and priorities that will eventually impact their lives.

1.6 The Sustainable Development Goals

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development were officially adopted by all member states to mobilize efforts to end extreme poverty, protect the planet, and ensure social inclusion economic development (United Nations, 2016). The Sustainable Development Goals have superseded the 8 Millennium Development Goals, which is a continuation of sustaining the momentum of the goals achieved while also addressing issues there were not included in MDG's. The SDGs integrate challenges of inclusiveness, equity, and urbanization and call for further strengthening of global partnerships by including CSOs and the private sector. In efforts towards realizing full inclusion, the SDGs recognized that this could not be achieved if there are minorities who are consistently left behind. Therefore, the Sustainable Development Goals pledged to leave no one behind by including persons with disabilities and disadvantaged groups in development gains and allowing them full participation. The inclusion of persons with disabilities was explicitly included in the 2030 Agenda for Sustainable Development as a cross-cutting theme on several goals, specifically in targets related to education (Goal 4), growth and employment (Goal 8), inequality (Goal 10), accessibility of human settlements (Goal 11), as well as data collection and monitoring of the SDGs (Goal 17).

Yet, all goals are relevant for persons with disabilities as part of the general population (United Nations, 2018). The Convention on the Rights of Persons with Disabilities and the Sustainable Development Goals are interconnected as a twin framework approach that must be aligned for disability inclusion in development. The Convention on the Rights of Persons with Disabilities serves as a legal framework to protect the rights of persons with disabilities through a human-rights approach by ensuring the full inclusion and empowerment of persons with disabilities.

1.7 Egypt's Policy and Legal Framework

In 2007, Egypt signed the Convention on the Rights of Persons with Disabilities and ratified it in April 2008. "The Government of Egypt and Egyptian disability advocates participated in drafting the CRPD within the Ad Hoc Committee" (Meadows, Mamieh, & Lord, 2014). On signature of the CRPD, Egypt entered the following statement as an Interpretive Declaration:

"The Arab Republic of Egypt declares that its interpretation of article 12 of the International Convention on the Protection and Promotion of the Rights of Persons with Disabilities, which deals with the recognition of persons with disabilities on an equal basis with others before the law, with regard to the concept of legal capacity dealt with in paragraph 2 of the said article, is that persons with disabilities enjoy the capacity to acquire rights and assume legal responsibility ('ahliyyat al-wujub) but not the capacity to perform ('ahliyyat al-'ada'), under Egyptian law" (United Nations, 2006).

Persons with disabilities were governed by the 1971 constitution and rehabilitation law 39 of 1975 and its amendment law 49 of 1982, which mainly focused on providing services to persons with disabilities as a thought of consideration, following the philosophy of a medical and charity approach. It is worth noting that there have not been any amendments in the rehabilitation law or disability policies until the year 2018 that issued Law 10 on the Rights of Persons with Disabilities. However, the consequences of following the medical approach have profoundly affected the

livelihood of persons with disabilities from a social, economic and cultural aspects across all these years. The social perception of disability in Egypt is often associated as a 'helpless' person, a subject to pity and sympathy, who is incapable of becoming an active member of the society due to his/her medical impairment. Therefore, they tend to be seen as a liability or heavy burden on the society and family members, which led some families to an extreme behavior of hiding their disabled child to avoid shame and stigmatization.

The Egyptian Constitutional amendments were adopted in 2014. The new constitution ensures those with disabilities are equal citizens and may not be discriminated against. Article 81 states the rights of the disabled as follows:

“The state shall guarantee the health, economic, social, cultural, entertainment, sporting, and education rights of dwarves and people with disabilities. The state shall provide work opportunities for such individuals and allocate a percentage of these opportunities to them, in addition to equipping public utilities and their surrounding environment. The state guarantees their right to exercise political rights and their integration with other citizens to achieve the principles of equality, justice, and equal opportunities” (State Information Service, 2019).

There are nine articles that cover different aspects, including rights of the child, election, national council, representation of persons with disabilities in house of representatives, personal freedom, state provision of means of access for those with disabilities, and equality in public rights and duties (State Information Service, 2019).

To integrate the disabled community, President Abdel Fatah Al-Sisi has announced 2018 as the year of persons with disabilities to promote inclusiveness in the development strategy. The Egyptian government has shown the political will to implement the presidential directive by adopting a new law for the disabled in Egypt, which mandates the Egyptian government to commit and protect the rights of persons with disabilities against discrimination due to disability or gender.

The rights in the articles of the law tackle equality, inclusion, and diversity aligned with the Convention Rights of Persons with Disabilities (CRPD).

Law No. 10 of 2018 on the Rights of Persons with Disabilities includes 58 articles in eight chapters which covers various elements to ensure that persons with disabilities have access to transportation, marriage, housing, education, social pensions and health insurance, employment, and leadership positions, without exclusion or discrimination. In addition, it also covers political participation and criminal protection rights for persons with disabilities. Also, the law includes penalty fees and imprisonment for employers who refuse to hire persons with disabilities and depriving a child with a disability of getting an education. The new law applies the human-rights based approach by providing comprehensive legal protection covering a wide range of issues that ensures their rights and empowerment in the Egyptian society. Despite the substantial progress, however, there may be concerns on the enforcement and compliance of the new legislation in the real ground. Egypt has always had laws and provisions in place, but a weak regulatory environment and lack of law enforcement may diminish all efforts undertaken to protect the rights of PwDs.

1.8 Disability & Employment in Egypt

Persons with disabilities face challenges and barriers that simultaneously impact the low employment rate of this segment. The challenges in the workplace include (a) physical barriers in the workplace and lack of accessibility, (b) discrimination and attitudinal barriers from employers, and (c) lack of enforcement of legislation that protect the rights of persons with disabilities against discrimination in the workplace.

The reflection of a disabled person in Egypt is often confined to a medical model approach, whereas a person with a disability is defined by his/her medical impairment such as movement, sensory and

mental functions, which restricts their ability to perform on activity. From a societal perspective, disability is a stigma within the Egyptian culture, where even family members are ashamed, resulting in encapsulating disabled family members from the community. The consequences of the medical approach have entrenched negative stereotypes and cultural norms that affect how PwDs are perceived in Egyptian society. While in reality, the limitations should be defined by the restrictive environment and barriers that hinder the abilities of PwDs to fully participate in the society, "a person is disabled more through societal imposed restrictions on accessibility, rather than by any physical infliction he or she has" (El Baradei, 2014).

1.9 Legislation on The Employment for Persons with Disabilities

The Egyptian legislation for employing disabled Egyptians was based on a quota system of five percent for public institutions with more than fifty employees. The Rehabilitation of Disabled Persons Law 39, passed in 1975, states that:

“Article (10) of the Rehabilitation Act No. 39 of 1975, amended by Law No. 49 of 1981, stating: Five percent of the total number of employees in each unit of the state administration body, public bodies, and public sector shall be allocated for disabled recipients of rehabilitation certificates, and these units fulfill the percentage referred to using the disabled residents living within their circles and registered in the related Manpower offices” (National Council for Disability Affairs, 2015, p. 2).

As Hagrass argues, during the 1970's, the Rehabilitation Law 39 (1975) has been amended under law 49 (1981) to unify disability policy under one statute by increasing the employment quota from 2 to 5%. “Even though the quota scheme ensures that there are some job opportunities for disabled workers, its application in practice is restrictive in that it tends to alienate disabled workers from non-disabled colleagues, inhibits their ability to compete in the open job market and, consequentially, does not promote equal opportunities in the workplace” (Hagrass, 2005, p. 157).

Bush & Ayeb (2012) argue that the law states penalties fees for violation and, in extreme cases, imprisonment. However, the penalty fees (a total of L.E100) are very small amounts that employers will not find it difficult to pay. Additionally, there are no records of actual enforcement of imprisonment (Bush & Ayeb, 2012). Hence, weak law enforcement is one main problem.

Law no. 10 of 2018 on the rights of persons with disabilities replaces the Rehabilitation Law of 1975, which comprehensively covers a wide range of areas, including employment. Several articles concerning employment differ from the former law to protect the right of persons with disabilities and ensure their full participation in the workforce. The first article mentioned in the law guarantees equal opportunities in work and prohibits any discrimination as it states the following:

“Article (20): The state is obligated to guarantee the right of persons with disabilities to obtain equal opportunities for work commensurate with their academic qualifications and vocational training. It also commits to not subjecting them to any type of forced labor, and it must provide protection in fair working conditions on equal terms with others and the endeavor to provide access to labor markets domestically and internationally and to boost their job opportunities by undertaking self-employment through comprehensive development activities and projects in light of the state's social policies. The state is also obliged to provide adequate safety and social measures and accommodation for persons with disabilities in the workplace, ensuring the exercise of their labor and union rights and enabling them to have effective access to technical and vocational guidance programs, employment services, and vocational and continuing training. Any discrimination or denial of any benefits and rights is prohibited on the basis of disability in appointment, type of work, promotions, or remuneration, wage, and attachments” (Egypt Official Gazette, 2018) – Translated by the author.

Article 20 prohibits any kind of discrimination or denial of any benefits in the workforce, including hiring, promotion, and salary wage. It requires the state to guarantee equal work opportunities that complement the academic qualification and vocational training. Article 20 further provides

adequate accommodation for persons with disabilities in the workplace and access to employment services, technical and vocational programs.

Article 22 highlights the employment quota for persons with disabilities. It obliges governmental, non-governmental agencies, and all employers who employ twenty workers or more to appoint at least five percent of their employees of disabled persons nominated by the concerned ministry administrative bodies. Humanity and Inclusion stated that the new disability law provides incentives by tax exemption or reductions to employers and entrepreneurs with disabilities and employers who exceed the employment quota for hiring persons with disabilities (Handicap International, 2016).

As for the penalty for violating the quota of five percent of employing persons with disabilities, the law stipulates that imprisonment for a period not exceeding one year and the fine not less than 10 thousand Egyptian pounds and not more than 30 thousand Egyptian pounds. While the former rehabilitation law had also imposed a penalty fee that was only up to L.E. 100 Egyptian pounds and, in extreme cases, imprisonment to those who violated the law, there are no actual records of actual enforcement of imprisonment (Bush & Ayeb, 2012). Hence, weak law enforcement may jeopardize the rights and integration of persons with disabilities in the workforce. However, creating incentives and providing financial benefits such as tax exemption is a steppingstone that will encourage employers to recruit more persons with disabilities and make workplace adjustments by removing physical barriers that may hinder their access to the workplace.

The law has also introduced a flexible work schedule in the public and private sectors. The law stipulated that the number of working hours be reduced by an hour for each day and paid for persons with disabilities or the person who takes care of a disabled person from among his relatives up to the second degree.

1.10 Disability Measurement in Egypt

Realizing the scarce of disability statistics in developing countries, the Central Agency for Public Mobilization and Statistics released the 2017 population census with a dedicated chapter on the characteristics of persons with disabilities to identify the social, economic, and demographics of persons with disabilities. It tackles different areas, including types of disabilities, residential, education, employment, medical and social insurance, and information and technology.

The CAPMAS has followed an international instrument, the United Nations Washington Group Questions established under the United Nations Statistical Commission City Group. The main objective is to aggregate disability data through a standard set of indicators based on the individual's functionality that can be suitable for censuses and national surveys and comparable on a global scale.

The set comprises questions on six core functional domains: seeing, hearing, walking, cognition, self-care, and communication. The degree of difficulty is divided into three levels:

- i) Simple difficulty, which does not limit or hinder the person's ability to perform usual activities.
- ii) High difficulty, which somehow hinders the person's ability to perform usual activities well.
- iii) Absolute difficulty, which hinders the person's ability to perform usual activities at all.

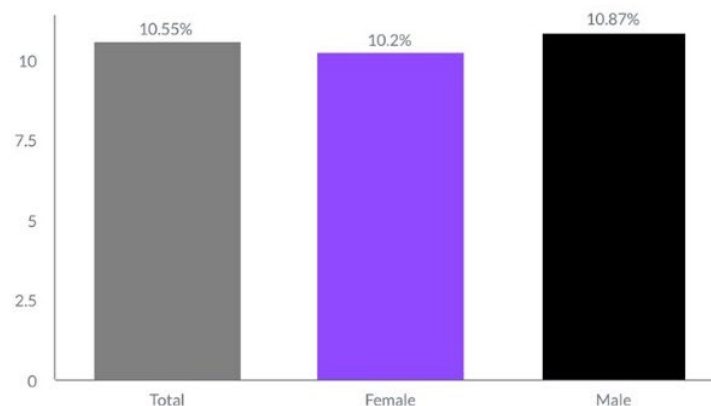
Each question has one of four response categories: "No, no difficulty"; "yes, some difficulty", "Yes, a lot of difficulty", and "Cannot do at all".

Disability Prevalence in Egypt

This section presents descriptive statistics on the 2017 census carried out by the Central Agency for Public Mobilization and Statistics. It stated that the total percentage of persons with disabilities in Egypt had reached 10.55 percent of Egypt's total population in 2017, which is an estimate of eight-ten million out of 94.799 million individuals. The 2018 Egyptian Labor Market Panel Survey indicates that the disability rates are much higher (Sieverding & Hassan, 2019).

For the purpose of this study, the CAPMAS statistics on the prevalence of disability and employment characteristics will be used as it also has the advantage of providing rich information on the internet, computer, and mobile use, which will further enhance the understanding of digital technology among persons with disabilities.

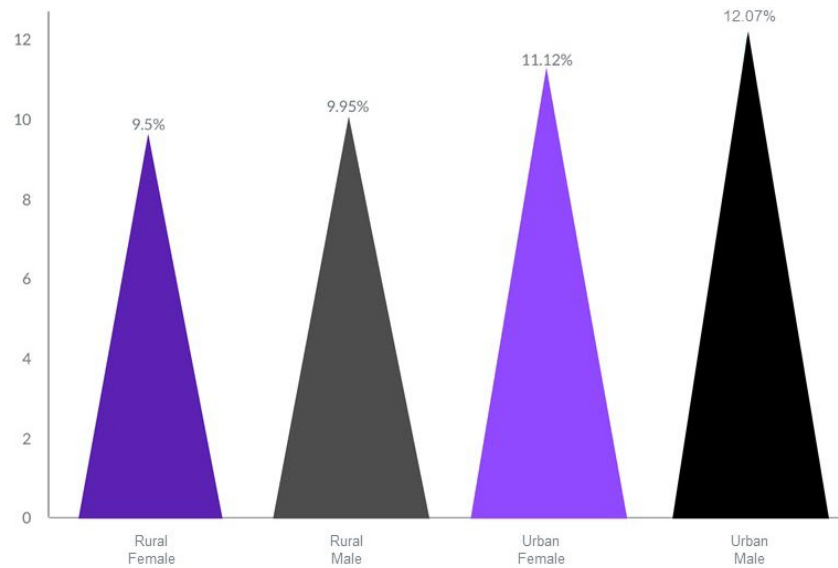
Figure 1 The percentage of individuals with difficulties among population aged five and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 1 presents the percentage of individuals with difficulties that ranges from simple to absolute, which has reached around 10% for the total of Egypt. There is a slight increase in the rate of men to 10.87% compared to 10.2% for women.

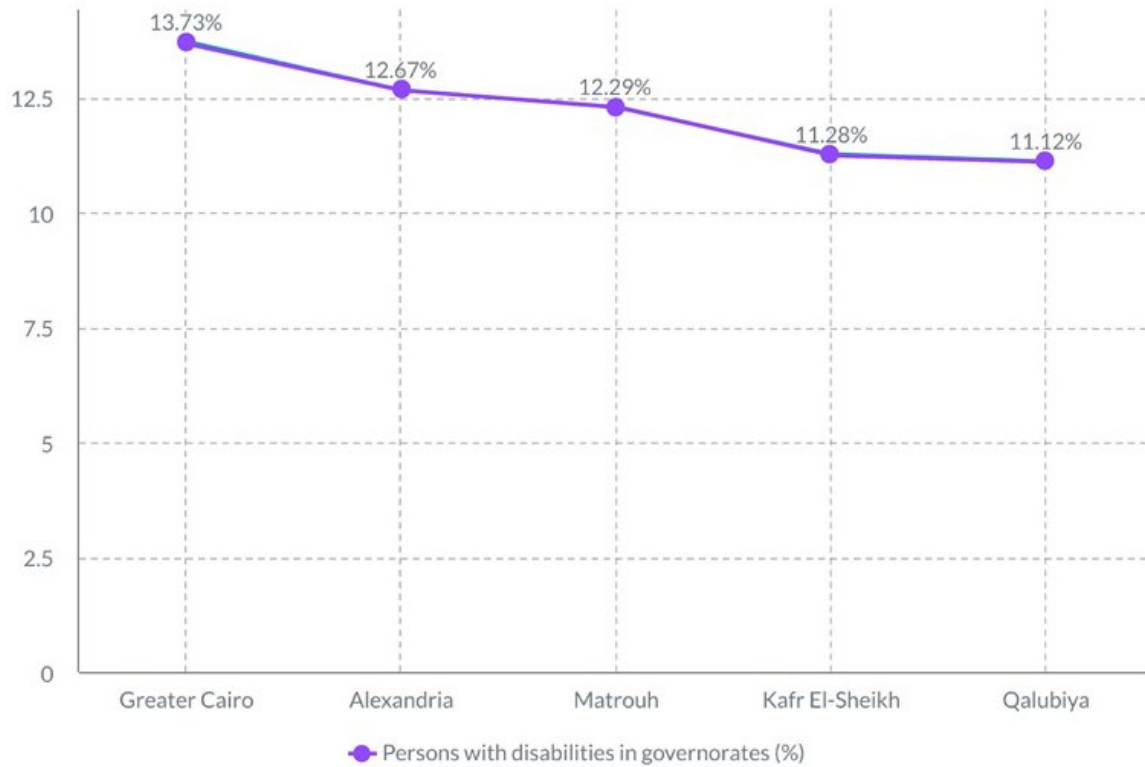
Figure 2 The percentage of individuals with difficulties in urban and rural areas with a population aged five and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 2 compares the gender of individuals with difficulties that range from simple to absolute in the urban and rural areas. It was found that men in the urban area are higher around 12% than men in the rural area with almost 10%. Like women in urban areas, the rate was 11.12% compared to almost 9.5% of women in rural areas. The total percentage of men is slightly higher than women in both urban and rural settings.

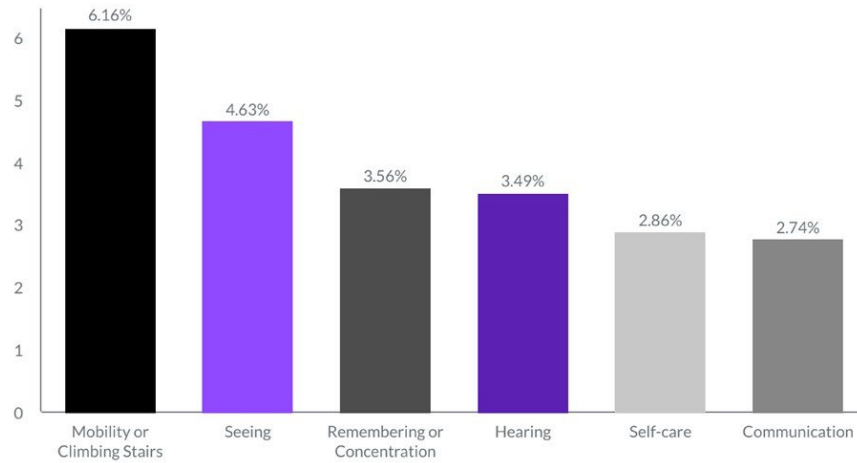
Figure 3 The percentage of individuals with difficulties according to governorates of population aged five and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

According to the governorate, figure 3 presents the percentage of individuals with difficulties that range from simple to absolute. The highest percentage was found in Greater Cairo around 13.73% of its total population, followed by Alexandria 12.67%, Matrouh 12.29%, Kafr El-Sheikh 11.28%, and Qalubiya 11.12%. The lowest percentage was found in South Sinai 5.11%.

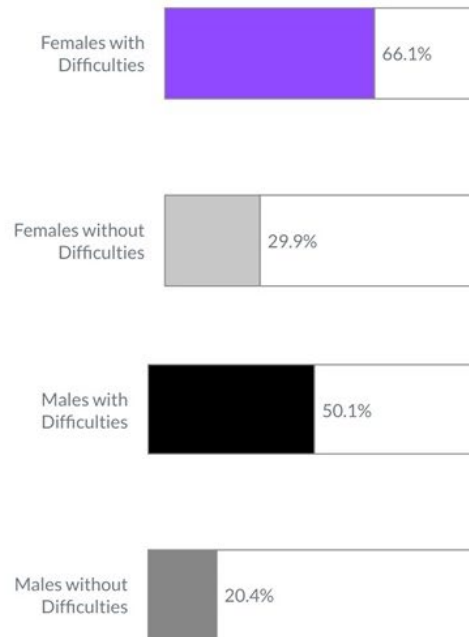
Figure 4 The percentage of individuals with difficulties based on functional difficulties of population aged five and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 4 shows the percentage of functional difficulties ranging from simple to absolute. The highest number was found for those with mobility challenges such as walking or climbing stairs with a rate of 61.6%, followed by seeing difficulty 4.63%, remembering or concentrating difficulty 3.56%. The lowest percentage was for the difficulty of understanding and communicating with others 2.74% and self-care 2.86%.

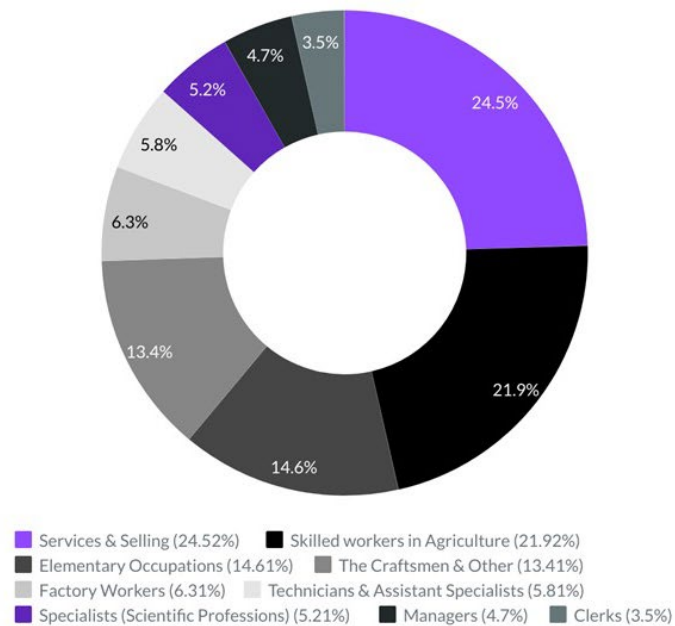
Figure 5 Illiteracy by gender among population aged ten and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 5 compares between the percentage of illiterate individuals with and without difficulties. It shows that women with difficulties are around 66%, twice the number of women without difficulties almost 30%. Men with difficulties are also higher around 50% compared to men without difficulties around 20%. The numbers show that the illiteracy rate is higher for women with difficulties than men with difficulties.

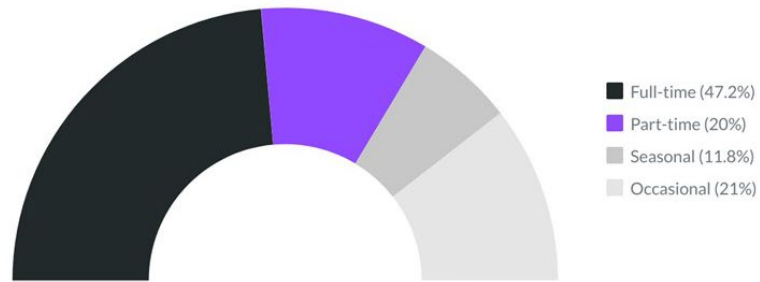
Figure 6 The percentage of individuals with difficulties according to sectors of main professions and functional difficulties for population aged fifteen and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 6 presents the percentage of individuals with difficulties ranging from major to absolute, according to sectors of main professions. The highest rate of workers with difficulties was for those working in the field of services and selling, accounting for about 24%, followed by skilled workers in agriculture almost 22%, while the clerks were the lowest, representing 3.5% of those employed, which has reached 10.55% for the total of Egypt. There is a slight increase in the rate of males to reach around 10.87% compared to 10.2% for females.

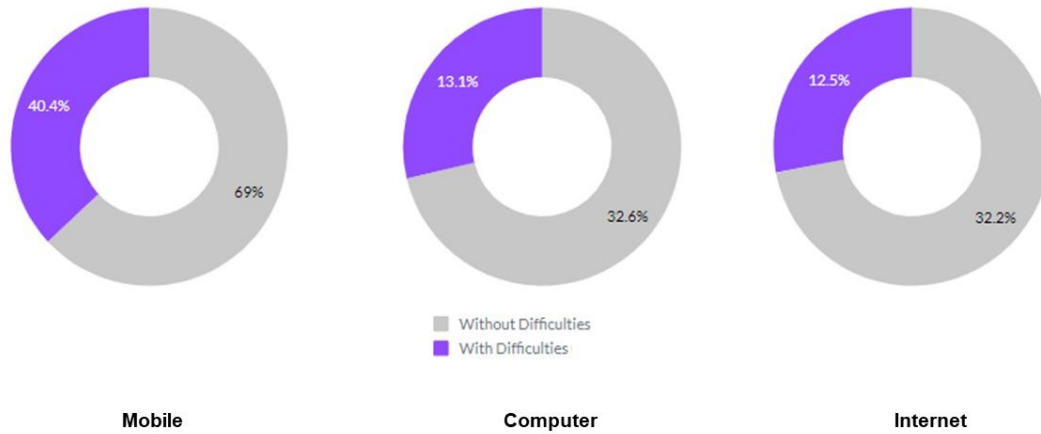
Figure 7 The percentage of individuals with difficulties according to season employment of population aged fifteen and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 7 highlights the percentage of individuals with difficulties ranging from major to absolute, according to season employment. There are around 47% of employed persons with disabilities on a full-time basis, followed by those who occasionally work by 21%. Those who work in part-time jobs are 20% of those with difficulties. In comparison, the lowest percentage was for those who work in seasonal jobs around 11%.

Figure 8 The total percentage of individuals with difficulties according to the use of digital technology for population aged five and above



Source: Compiled by the author based on data from The Central Agency for Public Mobilization and Statistics 2017 census

Figure 8 presents the total percentage of individuals with and without difficulties according to digital technology. For mobile phones, it was found that around 40% of individuals with difficulties using mobile, compared to individuals without difficulties 69% of mobile users. For computer use, 13% of individuals with difficulties use computers than individuals without difficulties, which was around 32%. The low percentage of computer using among individuals with difficulties led to a decrease in the percentage of Internet users, which was only about 12% among individuals with difficulties, while 32% for individuals without difficulties.

CHAPTER TWO | LITERATURE REVIEW

Persons with disabilities (PWD) face multiple barriers that simultaneously impact the employment rate of this segment. The potential of employing persons with disabilities is frequently lower than their non-disabled peers. According to the US Department of Labor (2021), 19.3 percent of persons with disabilities are employed comparing to 66.3 percent of those without disabilities. Strong evidence shows that the main challenges of employing persons with disabilities have these underlying dimensions: i) physical barriers and lack of accommodation, and ii) discrimination and attitudinal barriers. This literature review uncovers those challenges with an emphasis on the impact of COVID-19 on the employment of persons with disabilities.

2.1 Discrimination and Attitudinal Barriers

Several studies show that discrimination and stigmatization are the main factors that exclude the integration of persons with disabilities in the workforce. To understand the depth of the problem, it is first essential to understand the employer's perceptions on hiring persons with disabilities. Mason Ameri et al. (2018) conducted a field experiment to investigate the potential discrimination against persons with disabilities by sending job applications to 6,016 accounting positions. Some of the cover letters revealed different types of disabilities, and one-third did not mention disability. The types of disability mentioned would have not negatively affected the performance of applicants for this specific job. The results indicated that 26% of disabled candidates were less likely to be considered of employer interest. As for experienced disabled candidates, 34% were also less considerable for getting the job post, due to increased investment on senior level. In Hong Kong, a study was conducted on employers hiring persons with disabilities. They were asked four hypothetical questions on hiring an applicant without disability and the other three with different

types of disability (depression, hearing loss, and mobility impairment). It was found that the employer preferred a non-disabled applicant twice as frequently as the other three applicants (Pearson, et al., 2003).

Nada Azhar (2014) examined the concept of disability diversity management in the banking sector of Saudi Arabia through a number of 24 interviews with managers. The findings show that attitudinal barriers and lack of awareness are the main reasons for the exclusion and discrimination against people with disabilities. For instance, the author stated that five interviewees agreed to hire a disabled employee as long as they do not deal with customers face-to-face. Also, it was stated that none of the interviews has a diversity specialist officer or employee responsible for diversity management in the Human Resource Department. The study concluded that anti-discrimination legislation is required from the government to protect persons with disabilities and a top-down approach for integrating persons with disabilities in the workplace. Also, raising awareness of the management and employees through training and disability awareness education.

Discrimination on disability types was profoundly emphasized in several studies where a hierarchy of preferences for the types of disabilities existed in the labor market. A national survey was conducted of Fortune 500 corporate policies towards hiring people with psychiatric disabilities. Findings show that not many firms are willing to recruit employees with psychiatric conditions or even acknowledge their needs. It was also found that employers prefer employees with physical disabilities rather than those with psychological impairments due to the perception of facing more discrimination and harassment (Jones, Gallagher, Kelley, & Massari, 1991). This study shows that there is hierarchical discrimination among the different types of disabilities, and employers' attention mainly focuses on physical disability given that it is easier to address and engage while it is harder to engage and employ persons with learning disabilities or similar types of impairment.

On the positive side, a focused study was conducted to examine employers' acceptance of persons with mental impairments. The study showed that the experience of employers' hiring individuals with developmental disabilities valued "consistent attendance, diversity in the workplace, reduced turnover, and collaboration among co-workers provided by this employee group" (Olson, Cioffi, Yovanoff, & Mank, 2001). Harold et al. stated that managing diversity effectively can lead to a better outcome for the employees and the organization, such as: "more committed, better satisfied, better-performing employees, and potentially better financial performance" (Patrick & Kumar, 2012, p.1).

Discrimination does not occur through employers only but also through employees, as well. Katharina Vornholt et al. (2018) stated that the performance of a disabled employee seemed to be a big concern in an organization whereby employees had low expectations of the disabled work performance to handle complex jobs and higher workload. It was found that more negative reactions and attitudes outsteamed towards employees with disabilities in general. The impact of stigmatization and discrimination could affect the psychological state of persons with disabilities, leading to low self-esteem and social distance from society, which may regard themselves as "too disabled" to take any active part in the community.

2.2 Accessibility and Accommodation Barriers

Workplace accommodation is vital for the effectiveness of work performance and full participation for persons with disabilities. Workplace accommodation may include flexible working schedules, assistive technologies, accessibility, and means of transportation. Studies have shown that the top concerns for employers and the lack of motivation to hire and retain persons with disabilities are mainly because of fear of ability to perform and accommodation costs. Despite the positive

outcomes of accommodation, which may contribute to an enhanced productivity level and increased overall organizational well-being, Bråthen et al. (2015) indicated that cost barrier, productivity barrier and information and attitude barrier could be factors that hinder the integration of people with disabilities.

Several studies suggest that the main challenge facing employment for the disabled is employers' concerns regarding workplace accommodation and adjustment. Employers raised their significant concerns when complying with the American Disability Act (ADA) by restructuring jobs suitable for the disabled besides providing cost-effective accommodation (Kevin Schartz et al., 2002). Katharina Vornholt et al. (2018) stated that studies show that the majority of accommodations are at a low cost, yet these misconceptions remain persistent.

Fraser, R.T., Johnson, K., Hebert, J. et al. (2010) conducted series of three semi-structured focus groups with key recruiting decision-makers to examine factors affecting employers' intention to hire persons with disabilities. Findings indicated that physical disabilities were a prominent concern for employers. For instance, a focus group representing participants from a small company stated that physical and structural barriers and lack of resources to modify those barriers were the main constraints of hiring persons with disabilities. As for the mid-sized company, one of their concerns was regarding co-worker's resentfulness towards extending special benefits to persons with disabilities such as time flexibility, shift modifications, etc. This reflects on the attitudinal barriers that may also affect the employer's decision on hiring persons with disabilities.

Sharon Harlan and Pamela Robert (1998) conducted a qualitative study to examine employers' resistance to provide accommodation for employees with disabilities. In-depth interviews with a sample of 50 persons with disabilities were conducted using the ground theory approach to capture the experiences of persons with disabilities and apply existing concepts of organizational and disability

theory. The finding shows that despite the provision of the 1990 American Disability Act, which directs employees to make the needed work adjustments to provide equal opportunities for persons with disabilities, employers were discouraging employees with disabilities from requesting work accommodation. Data shows that 1 of every three requests of accommodations was denied by employers. Findings also showed an association with the job salary grade, gender, and race to request accommodation. Employees with disabilities in lower-grade jobs were less likely to ask for accommodation than those with higher grades. Some of the employees who did not request accommodation are afraid of being perceived as 'less able' than their non-disabled peers.

Furthermore, it was found that physical work adjustments (e.g., furniture, parking, and adaptive equipment) were less likely to be denied. In contrast, requests for changes in the work structure (e.g., job functions, work schedules, and personal assistance) were most likely to be denied. The authors derived that employers would mostly deny work structure requests to maintain control and supervision over the employees in the workplace and maintain the status quo of the organizational hierarchy.

2.3 Effect of COVID-19 on Employment

The global pandemic has severely disrupted the lives and wellbeing of millions around the world. According to the World Health Organization (2020), there have been 57,274,018 confirmed cases of COVID-19, including 1,368,000 deaths globally. The COVID-19 crisis outbreak has spread rapidly, presenting an unprecedented challenge to public health, social and economic status, risking the loss of lives and increasing poverty and inequality.

The implication of coronavirus lockdown on employment has forced restrictions on enterprises to shut down due to social distancing measures to contain the spread of the virus. The disparities of COVID-19 on the global labor market have led to 400 million jobs lost (ILO, 2020), especially in specific

occupations and industries that require face-to-face contacts such as hospitality, travel, manufacturing, and nonessential retail sectors. According to the Central Agency for Public Mobilization and Statistics, Egypt's unemployment rate increased to 9.2% at the end of April 2020 due to the government's precautionary measures to control the spread of the virus, including night curfews, closure of schools and suspension of air travel. However, during the fourth quarter (Q4) of 2020, the unemployment rate reached 7.2 percent due to the return of normal daily activities and work schedule after the end of the government's-imposed curfew and partial lockdown (CAPMAS, 2020).

Laura Montenovo et al. (2020) conducted a study to assess the job losses in the United States during the early months of COVID-19. Findings show that unemployment rates are about 46% lower among workers with more compatible jobs with remote work. Yet, workers that require face-to-face interactions were more likely to get unemployed. Furthermore, it was shown that social stratification was highly profound, whereas college graduates (and above) who are able to work remotely were at less risk of contracting the virus due to social distancing.

In developing countries, the informal economy comprises 2 billion informal workers, representing 60% of workers and 80% of enterprises (ILO, 2020). In Egypt, the OECD estimated that 1.6 million informal workers would lose their jobs by the third quarter of 2020, leading to the rise of poverty rates (OECD, 2020). Informal sector workers are vulnerable and at higher risk of the disease due to lack of social protection schemes, access to health services, and their job requiring face-to-face involvement. Furthermore, informal workers are usually paid a low wage, and with the business closure imposed by the lockdown of COVID-19, there may be little or no savings at all.

Even though the COVID-19 pandemic has forced a lockdown on everyone, this has always been the reality for persons with disabilities. It may have just made their isolation worse than before.

2.4 Impact of COVID-19 on Employment for Persons with Disabilities

With the ongoing pandemic, persons with disabilities are amongst the hardest hit and more likely to contract the corona virus due to health conditions (ILO, 2020). The latest evidence from the UK shows that 59% of COVID-19 deaths were persons with disabilities (Office for National Statistics, 2020). The vulnerability of PwDs has a higher tendency of contracting the virus due to the absence of adequate resources and safety nets to protect them against the impacts of COVID-19, including health, social protection, education, and economic assets.

The resulting economic shock of the pandemic increased the marginalization and exclusion for persons with disabilities as they are less likely to be employed or have a decent job in the formal economy with a protection scheme. Although persons with and without disabilities were laid off or furloughed during the crisis of COVID-19, persons with disabilities have previously experienced a much higher rate of unemployment. They were more likely to be economically inactive than those without disabilities. Humanity & Inclusion (2020) conducted a telephone survey on April 2020 with a sample of 240 households including persons with and without disabilities as well as their family members. The finding shows that 95% of the respondents' overall income was negatively affected due to COVID-19 pandemic. According to the US Department of Labor (2020), the latest statistics show that only 20.6% of persons with disabilities participate in the labor force compared to 67% of persons without disabilities.

Innovation to Inclusion programme conducted a qualitative survey to measure the impact of COVID-19 on persons with disabilities in Bangladesh and Kenya. A sample of 312 persons with disabilities representing a range of disability types was interviewed through telephone. Findings show regarding employment that many respondents from both countries had faced employment and job insecurity. In Kenya, 68% could not work, while the rate was higher in Bangladesh by

80%. When asked about job security, more than 85% in Bangladesh felt insecurity in their current jobs, while in Kenya, it was less with the rate of 65%. The findings show that working remotely may have its own challenges; about 10% of respondents from both countries were concerned about the lack of access to technology and flexible working conditions. While certain facilities and technology may have been available in the office, yet these facilities may not necessarily be available at home, including adequate internet service and assistive devices. The study recommended that employers' should encourage flexible work arrangements and provide assistive devices and other technology to enable PwDs to perform while working from home (Leonard Cheshire, 2020).

The COVID-19 pandemic has shifted the structure of work by normalizing the new 'Work from Home' form. Shur et al. (2020) conducted a study on disability and home-based work by analyzing pre-COVID data representing three data sources. The findings show that from 2009 through 2018, employed persons with disabilities were more likely to work primarily from home, especially those with mobility impairments, difficulty with self-care, and difficulty going outside alone. Employers may be more encouraged to recruit persons with disabilities for home-based work positions due to lower concerns of restructuring workplace sites and attitudinal behavior of supervisors and co-workers toward persons with disabilities. One of the potential barriers was access to internet connectivity, while results show that persons with disabilities are less likely to have internet access in their homes; hence, restraining employment opportunities to digital jobs. An empirical study by Linden et al. (2014) on the employment and accommodation patterns among persons with disabilities was conducted through a national cross-sectional survey of 373 individuals electronically. Findings show that the main benefit of telework is the flexible accommodation for persons with disabilities, which could help minimize pain and fatigue-related barriers associated

with traditional jobs. Moon et al. stated that employees' "rationales for telework are more complex, involving work-life balance, strategies for pain and fatigue not formally recognized as a disability" (Moon, 2014). A European study by Giovanis et al. (2019) examined the impact of flexible employment schemes through the European Working Conditions Survey over 2000-2015. The results show a positive effect on the disabled workers and careers' job satisfaction and lower incidence of absenteeism at work. Despite the benefits of telework that may help increase opportunities for hiring persons with disabilities, Baker et al. argue that it may have a severe negative impact on "the type of work, workplace environment and interactions, and accumulation of social capital for people with disabilities" (Baker, Moon, & Ward, 2006, p. 42). The authors also tackled the impact of telework that may result to social isolation on many teleworkers and how to increase their participation in the workplace community.

LITERATURE GAP

The literature underlines the employment barriers for persons with disabilities, emphasizing the employer's perception of disability. Even though that many scholars have significantly contributed to understanding those challenges thoroughly. However, a few studies focused on the employment situation of persons with disabilities during or post the COVID-19 pandemic. Most literature found were mainly related to the impact of COVID-19 and responsive measures to include persons with disabilities in all recovery stages. Furthermore, the data on disability is compromised, and the scarcity of published literature on disability issues in Egypt has shown the wide gap in studies and the importance of tackling the employment for persons with disabilities in Egypt. In light of this research, this thesis contributes to narrowing the gap by exploring the future work of persons with disabilities post COVID-19 and the potential of digital jobs in increasing employment for persons with disabilities in Egypt.

CHAPTER THREE | RESEARCH FRAMEWORK

3.1 Conceptual Framework

The diagram below shows the relation between the challenges facing persons with disabilities in employment and the approach for creating an enabling environment that will foster inclusive employment through digitization. This qualitative study intends to explore the underlying challenges facing persons with disabilities in the workforce and the extent COVID-19 pandemic, emphasizing the potential of digital technology/jobs can increase and create new employment opportunities for persons with disabilities.

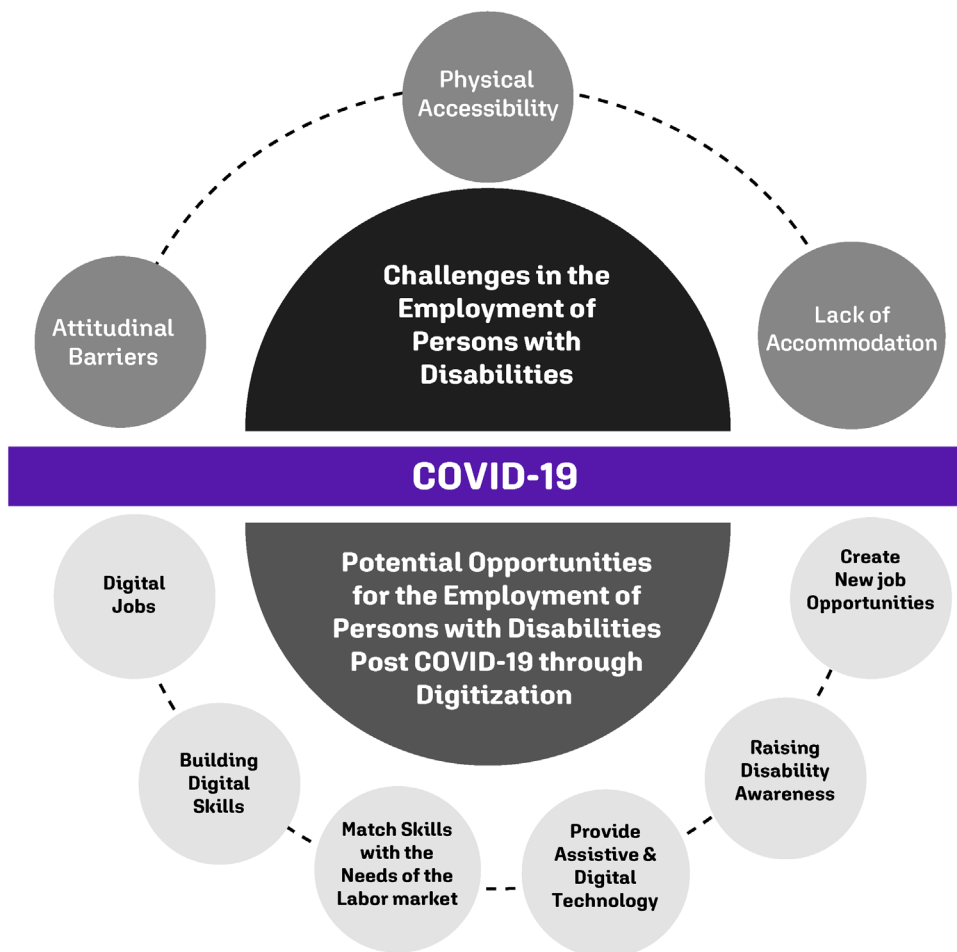


Figure 9 Conceptual framework showing the relation between variables

3.2 Research Methodology

This study aims to carry out an exploratory study to delve into the underlying challenges facing persons with disabilities in the workforce and explore how the COVID-19 pandemic can reshape the future of work for persons with disabilities in Egypt.

A qualitative method was used for this research study through an in-depth interview conducted with representatives from different institutions, including the private sector, civil society, international organizations, and Egyptian governmental institutions. A semi-structured interview was conducted with 9 specialists in disability inclusion from diverse professional affiliations. The aim was to understand the different roles each actor plays to promote disability inclusion in the workforce and learn more about the challenges of employment for persons with disabilities and explore ways to pave a roadmap towards an inclusive work environment post-COVID-19.

3.2.1 Sampling

A combination of non-probability methods was used for the study. The *purposive* sampling technique to select participants purposefully was an essential criterion due to their profession, knowledge, and deep understanding of disability inclusion in the workforce. Also, the *snowball* sampling technique was conducted by requesting referrals for potential informants who have worked on disability inclusion within their field. For instance, an NGO that partnered with a private sector or another NGO on a specific project would put me in contact to reach out to participants and explore their interests to take part in the research to provide more substantial analysis. The researcher has stopped conducting interviews once the data collection has reached a theoretical saturation point where no additional insights were reflected on the research question.

Table 1 Informants' Profiles

Informant	Title	Gender	Professional Affiliation	Location
Participant #1	Head of Training	Male	Private sector	Egypt
Participant #2	Senior Operation Specialist	Female – Physically Challenged	NGO	Egypt
Participant #3	Program Manager	Female	NGO	Egypt
Participant #4	Founder and member of National Council for Disability Affairs	Female	Public sector and NGO	Egypt
Participant #5	Former HR personnel	Male	Private Sector	Egypt
Participant #6	Social Development Specialist	Female	International organization	USA
Participant #7	Executive Director	Male – Visually Challenged	International NGO	USA
Participant #8	Senior Disability Specialist	Male	International organization	USA
Participant #9	Director of Innovation and UK Programme Delivery	Female	International NGO	UK

Profile of interviewed participants (Source: the researcher)

3.2.2 Data Collection

Semi-structured interviews with open-ended questions were the primary data collection approach. Main questions were prepared before the interviews to keep the conversation relevant to the research problem. However, there was also room for more probing questions to allow more flexibility and explore various aspects of the topic at length. Secondary data were obtained through multiple sources, including policy desk reviews, reports of international organizations, academic journals, public records, web information, journals, and previous research. Due to the current COVID-19 situation, all interviews were conducted via Zoom meeting application for safety measures. The researcher has shared the consent form with informants before the interview to provide an overview of the topic and requested to sign after the interview was conducted. The researcher has

built rapport with informants by ensuring that confidentiality and protecting their rights are critical responsibilities. The researcher has requested the informant's approval to start recording the interview for the purpose of notetaking while also taking observational notes.

3.2.3 Data Analysis

Preliminary analysis of the in-depth interviews was combined with observational notes taken during the interviews and while analyzing the recordings. The interviews were conducted in English and Arabic, and the researcher translated the extracted quotes. In developing emerging themes, a constant comparative analysis was considered regarding the literature review and seeking to generate new findings. The collected data was analyzed according to the materials gathered in the interviews, notes, and video/audio recordings as follows: 1) The overall impressions extracted from the transcribed texts and emerging themes. 2) Major themes were reformulated in a framework structure with subheadings, analyzing and combining similar data by coding them. 3) Descriptive coding was used to summarize the themes of the collected data.

To validate data interpretation and credibility, *member checking* was considered by reviewing the informants' feedback and double-checking during the interview (Marshall & Rossman, 2011). Furthermore, given the condition of the researcher of being physically challenged and using a wheelchair, the researcher considers herself to be an informant of this culture, and her reflexivity on the subject by pre-existing understanding and experience of disability has significantly contributed to the authenticity and depth of the research analysis. Additionally, the researcher did not disclose her condition to most of the informants during the interview to allow freedom of expression without any biases, confinement, or sensitivity in disclosing any information, especially that disability could be categorized as a sensitive topic.

3.2.4 Ethical Considerations

The ethical considerations were well preserved in this research. First, all the interviews were conducted between January and April after the approval of the Institutional Review Board IRB at the American University in Cairo. The researcher ensured that all interviews guaranteed confidentiality regarding the identity of the informants, and the latter names were not mentioned in any documents and/or notes without their approved consent. The recordings of the interviews were consented by the informants first before proceeding. As an extra precaution, when participants were directly quoted, details that could identify the participants were either changed or omitted.

3.2.5 Limitation and Delimitation

Limitations of the current investigation relate to the fact that the informants from NGOs and the private sector are mainly based in Cairo, the capital of Egypt. Therefore, there the data collected cannot be generalized to all of Egypt's population. Another critical limitation was the inability to conduct more interviews with governmental officials in disability inclusion, which would have expanded the horizon and depth of this research paper by sampling the representation of all main actors in the field. Given the limited network resources and time limitation, it was difficult to conduct an interview with several key government officials who are deeply involved in disability inclusion.

Although this is an MPA thesis, and the MPA degree usually focuses on the government and nonprofit sector, yet in this thesis, the researcher implemented the interviews for the field work in all the three sectors of the economy, the public, private and nonprofit sector, in order to derive lessons learnt that may inform future policy for greater inclusivity of persons with disabilities in the labor force at large.

CHAPTER FOUR | FINDINGS AND DISCUSSION

While COVID-19 global pandemic had a significant negative impact worldwide, it presents an opportunity to revolutionize the way forward for persons with disabilities in the workforce. This study intends to explore the underlying challenges facing persons with disabilities in the workforce, the extent to the COVID-19 pandemic emphasizing the potential of digital technology/jobs, increased employment rate, and new employment opportunities for people with disabilities.

In-depth interviews were conducted with 9 disability inclusion specialists representing the private and public sector, international development organizations and civil society. A pseudonym or alias names were used when presenting the data findings to protect the informant's identity. The aim of diversifying their professional affiliation was to understand the different roles each actor plays to promote disability inclusion in the workforce and learn more about the challenges on employment for persons with disabilities and explore ways to pave a roadmap to an inclusive work environment post-COVID-19.

A number of issues emerge from the interview data discussed in this section—first, the distinctive relation between Egypt's former rehabilitation law and the new disability law. Second, addressing employers' myths and fears about hiring persons with different types of disabilities. Third, the impact of COVID-19 on employment for persons with disabilities and how it has leveled the field through digital jobs. Fourth, access to information technology and built-in accessibility features will be the new trend for enhancing employment and inclusion for persons with disabilities. Finally, the fifth section focuses on understanding the supply and demand equation by building a business case and advocating for adequate digital skills development and training to close the employment gap for persons with disabilities.

4.1 Exclusion vs. Inclusion

4.1.1 EGYPT DISABILITY LAW 10

The new legislation for Egyptians with disabilities provides hope for the near future. Several informants expressed optimism that with the implementation of the new law, the lives of persons with disabilities in Egypt will transform for the better. Robust regulatory systems and collaboration among ministers to ensure the implementation of laws are critical to the effectiveness of these laws. This section seeks to describe the distinction between the old ways of doing business and how the new law levels the playing field for persons with disabilities in the workforce.

Reflecting on the former Rehabilitation Law No. 49 (1982), the following quote by Donia describes the current situation on the employment for persons with disabilities in contrast to the former legislation system with an emphasis on the 5% employment quota.

“We have been more than 70 years in this situation, and it will not change within a day. We still have a long way to go. To progress, we need an audit and regulatory system to ensure the 5% quota is happening on the real ground, not just on papers.”

Donia, Senior Operation Specialist, NGO (Physically challenged)

With the former rehabilitation law, the old practices of hiring persons with disabilities were only to document papers and to abide by the law of hiring a 5% quota to meet the minimum requirements.

“Don’t come to work. We will send your salary to your homeplace.”

Nadia, NGO Founder and member of the National Council for PwD

Employers used to pay a minimum wage to a disabled person and request him/her to stay home without the need to show to work. This ideology and way of thinking have been entrenched in

employers' mindsets for more than 70 years following the medical or charity approach. Finding shows that persons with disabilities were also encouraging this kind of passive behavior by which they will reach into a mutual agreement whereas employers would have persons with disabilities registered in their system, in compliance with the 5% quota while persons with disabilities are receiving a monthly salary even if it was a low amount of money without the need to show up at work, either way, they are not requested to perform any job duties at all.

However, with the new Disability Law (10), Donia emphasized the comprehensiveness and transformational shift of following the human rights-based approach instead of the medical or charity approach. Furthermore, the new disability law was drafted with the engagement of persons with disabilities.

“Nothing about us without us – Persons with disabilities had worked on drafting the new disability law along with civil society and parliamentary members to address the real needs and rights of persons with disabilities.”

Donia, Senior Operation Specialist, NGO (Physically challenged)

The new Disability Law (10) was discussed and drafted by persons with disabilities who are aware of their problems and know what they need. The famous slogan “Nothing about us without us” is used to communicate the idea that no policy should be decided without the full representation of the affected group members. Donia stressed that the new law had taken a direct course of action by addressing the complex challenges facing all disabilities in various aspects, including employment.

“With the employment 5% quota, employers in both cases must hire persons with disabilities, so instead of paying salary to someone who doesn't work, there can be a mutual interest whereas both sides could benefit.”

Ramy, former HR Personnel, Private sector

The ultimate objective of the new disability law is to ensure the inclusion and full participation of persons with disabilities in all aspects. Ramy explains that the concept of inclusion is to integrate persons with disabilities into the workforce and provide equal opportunities. Some employers are starting to comprehend the benefits of creating an inclusive workplace and realize the mutual advantages that can reside for both sides. Instead of following the old traditional way of doing business, employers realized that they could comply with the law by hiring a person with a disability to perform and earn their salary whilst on the other side, a disabled person can be a productive and functional member of the society.

Despite the optimism yet there were gaps in the employment law. Nadia explains that even though the new disability law is comprehensive and mindful of different disability types, some persons with disabilities could be left behind.

“The down set of 5% employment quota is the lack of diversity of disability types in recruitment.”

Nadia, NGO Founder and member of the National Council for PwD

Physical disability is the most common and somehow among the easiest disability type in Egypt. Employers' have a high tendency to hire those with mobility challenges as it may be easier to accommodate their needs in terms of physical accessibility rather than dealing with the other challenges faced by other disability types.

In efforts to sustain the momentum of the new disability law, Nadia describes the governmental strategy to follow up on the implementation of disability law among Egyptian ministries.

“A ministerial committee was established to follow up on the implementation of disability law (10) and its regulations, in the presence of the National Council for Persons with Disabilities.”

Nadia, NGO Founder and member of the National Council for PwD

Nadia explained that the objective of the ministerial committee was to ensure compliance with the legislation and that all ministries have the technical knowledge and financial resources to implement law 10 of 2018 on the rights of PwDs by including them in their development program agenda. The government undertook efforts to promote inclusion for PwDs. Most recently was a support fund headed by the Prime Minister under law no.200 of 2020. The support fund aims to support persons with disabilities within the economic, health, educational, and training fields. Furthermore, the fund provides financial assistance and scholarship domestically and internationally and also contribute to improving accessibility in public facilities. With the disability rights law, it is expected that employers will abide and implement the 5% employment quota. Article 22 stipulates that every employer with twenty or more workers must appoint at least 5% of the workers from persons with disabilities. Also, employers should provide flexible work accommodations, including reducing working hours in all governmental and non-governmental agencies.

4.2 Misconceptions vs. Reality

4.2.1 PERCEPTION

The findings shows that there were positive attitudes of employers towards employing persons with disabilities. Nevertheless, the unconscious bias is deeply rooted in several factors affecting their judgment: the extra cost of accommodation, reliability, quality, productivity, and promotion, especially in a managerial or leadership position for persons with disabilities.

Ramy stated that employers held attitudes and negative stereotypes about disabled individuals due to a lack of awareness.

“Persons with disabilities are more productive than non-disabled as they always need to prove their competencies because the society is always expecting and doubting that a disabled person can excel and can perform well in the workplace.”

Ramy, former HR Personnel, Private sector

The myth and fear of employing persons with disabilities due to lack of competencies and efficiency were common responses from most of the respondents when asked why employers are reluctant to hire persons with disabilities.

“Oh pity, he/she has a disability.”

Ramy, former HR Personnel, Private sector

Ramy stated that most employers in Egypt perceive persons with disabilities as charity case that needs sympathy rather than empowering them and providing opportunities to strive equally as their peers in the society.

The following quote by Donia succinctly illustrates the employer’s perception of promoting persons with disabilities for a senior and leadership position.

“Persons with disabilities don’t get promoted just because of their disability. Some employers simply think that the disabled person is unworthy of having a promotion. As long as persons with disabilities need help - they are less. Therefore, they do not get promoted, low salary and weak performance – This kind of behavior cannot be called aggressiveness but more of exclusion.”

Donia, Senior Operation Specialist, NGO (Physically challenged)

Employers perceive the disabled employee as a ‘second-class citizen because of their disability, despite having the skill sets and expertise to excel in the workplace. However, a person with a

disability will always be seen as a ‘damaged second-hand’ product. Promotion can also be more challenging, whereas employees who get promoted to a managerial or leadership position are mostly based on networking and nepotism, disregarding qualified candidates.

Commitment and willingness were one of the key challenges expressed by Nouran when asked about the qualities they seek when training persons with disabilities:

" I don 't want someone abusing their disability."

Nouran, Program Manager, NGO

Certain behaviors may seem abusive from the employers' point of view, such as being absent multiple times and lacking commitment or willingness to learn. This kind of negative behavior may highly affect and exacerbate the stereotype perception of persons with disabilities. Nouran explained that the reasons behind this behavior could be lack of work experience, dependency, and inaccessible infrastructure.

"One negative behavior coming from one person - its impact is greater than the majority of persons with disabilities having motive and truly trying to do change."

Nouran, Program Manager, NGO

This situation makes it even harder if the employer is conservative and has existing biases towards hiring persons with disabilities. Nouran explained that this kind of behavior would only affirm the concept that persons with disabilities cannot be productive or reliable at work. The impact of practicing such behavior could have a monopoly effect that may demolish all the efforts made to promote the inclusion of persons with disabilities. Therefore, behavioral change is required not only from the employers’ side but also from persons with disabilities.

4.2.2 DISABILITY TYPES

Persons with intellectual disabilities are often overlooked and face multifaceted barriers globally due to poor education quality, lack of access to information, and few decent jobs.

“Even within the disability community, there are those who are the most marginalized which are persons with intellectual disability, they face double stigma.”

Bashir, Executive Director, International NGO

Bashir describes the unfortunate situation faced by persons with intellectual disabilities. There is a hierarchical standard within the disability community. Most of the attention goes to physical and sensor disability, given that it is easier to address and engage. Simultaneously, it is harder to engage and employ persons with learning disabilities or similar types of impairment.

Ramy stresses that this myth is untrue despite employers' negative attitude and stigma held on persons with intellectual disabilities.

“Employers are afraid to hire a person with intellectual disability as he may be a danger to himself and others. Also, unpredictable behavior may lead to an embarrassment in front of a client.”

Ramy, former HR Personnel, Private sector

Based on Ramy's 15 years of work experience in recruiting persons with intellectual disabilities, Ramy believes that with the proper training, they have shown excellent performance and commitment. Also, Ramy stated that even though employers may think that customers would not feel comfortable dealing with persons with disabilities, Ramy believes otherwise by adding that there is a high tendency for customers to feel more comfortable around a person with a disability than a non-disabled employee. It is worth noting that disability is a wide spectrum that ranges

within each disability type. For persons with intellectual disabilities, some do not pose significant hurdles to employment, depending on the type of job and the persons' ability.

It was common that several informants agreed that certain types of jobs would not necessarily work for all types of disabilities due to job requirements and educational background. Akram describes the reasons for not promoting a person with a physical disability in a call center.

“The nature of operations and call center requires a dynamic person who can work up to 16hrs physically and always be on call even at home. I need someone on his feet, an abled bodied who is healthy.”

Akram, Head of Training, Private sector

Even though Akram strives to create an inclusive and diverse workplace, yet when the idea of promotion was raised, he responded by saying that this job demands physical endurance, long working hours, and dynamics that do not fit with a person who uses a wheelchair. Therefore, it will be challenging to promote a disabled employee unless he/she were able to meet the above requirement. Even though a person with physical challenges may have limitations in movement and mobility to a certain extent, however, this should never be the reason to deprive or to decide upon a person's capability of receiving a promotion. The evaluation should be based on merit, performance, and competencies and not on the basis of the person's disability and physical limitation.

Nadia emphasizes the importance of focusing on the person's abilities, not disabilities.

“Let's find out how to make use of their best abilities, and let's forget about their disabilities and built on their abilities.”

Nadia, NGO Founder and member of the National Council for PwD

People tend to focus on their inabilities instead of focusing on their capabilities and areas of strength. Nadia stated that employers should utilize their strength instead of focusing on the weakness. For instance, deaf persons are the most suitable candidates to work in a factory that able-bodied would find the noise annoying. However, the workplace must be accessible and adapted to the needs of the deaf person.

4.3 Digital vs. Labor Jobs

4.3.1 IMPACT OF COVID-19

The global crisis of COVID-19 has aggravated pre-existing inequalities and discrimination among persons with disabilities. Many disabled employees were laid off, or furloughed, due to lack of accommodation, lack of access to technology, and labor jobs that required their physical attendance at the workplace and therefore cannot be replaced with home-based work. However, a silver lining also developed.

Donia conveys her views as a physically challenged person on the impact of COVID-19 on employment and how it has leveled the playing field among non-disabled persons.

“Employers perceive persons with disabilities as incapable, but with the COVID-19 outbreak, all of a sudden, the whole world had become disabled, incapable of going to work. The pandemic leveled the field between disabled and non-disabled persons.”

Donia, Senior Operation Specialist, NGO (Physically challenged)

With the lockdown, millions of people who are not disabled have experienced the challenges and barriers facing persons with disabilities that hinder their participation in daily life activities.

Bashir illustrates the impact of COVID-19 on persons with disabilities in the workforce,

“When it comes to shrinking the labor force, the first target will be persons with disabilities and especially women with disabilities because persons with disabilities are more vulnerable and marginalized.”

Bashir, Executive Director, International NGO (Visually challenged)

Persons with disabilities are the first to lose or get laid off their jobs due to their vulnerability. This situation may be expected in countries where persons with disabilities do not have access to technology or efficient infrastructure for technology. Due to the vulnerability of PwDs, they are often the first to be sought of when deciding to terminate or layoff, especially in the private sector. Bashir explained that there might be no alternative way to continue employment in some developing countries, through working from home using technology or working online.

“It is much concerning on SME's, self-employed or working in the informal economy. The situation is much more negative and difficult for persons with disabilities in this situation to continue advancing.”

Martin, Senior Disability Specialist, International organization

Martin highlights that there are certain groups of persons with disabilities who were severely impacted by the crisis. The whole issue of social distancing and remote work arrangements may have been feasible for some, yet not everyone has a job done through telework arrangements. Different disability types such as an intellectual disability may have also been severely affected since most of their employment depends on being physically present in a work location.

4.3.2 HOME-BASED WORK

Despite that, most of the informants' perceived the impact of COVID-19 has been more negative than positive for persons with disabilities. Yet, there was also a strong agreement among

respondents on how COVID-19 can present an opportunity by reshaping employment and increasing jobs for persons with disabilities.

Many businesses had to shift to home-based work, which made the impossible possible to work remotely and still be productive and contribute.

“Since a lot of work transformed to digital, it ended up opening opportunities for persons with disabilities where maybe they were hampered from physically being in a job location.”

Dilya, Social Development Specialist, International Organization

In every tribulation, there is a grant. Dilya explains that the pandemic may have been in favor of persons with disabilities since traditional jobs that required a person to be physically present at the office may no longer be required during and post-COVID-19. Home-based work could greatly benefit persons with disabilities who are experiencing challenges with the physical environment.

“The working environment has changed to home-based work, which has highly influenced our state of mind of constantly feeling incapable due to inaccessible environment - as a disabled employed person in Egypt, you face so many barriers on a daily basis just to get to work (...) COVID-19 has lightened the burden on those who are disabled by only working from home.”

Donia, Senior Operation Specialist, NGO (Physically challenged)

Donia describes the typical situation among the disabled community who were forced to stay at home (pre-COVID-19) due to inaccessible infrastructure, workplace, and public transportation. However, with the ‘new normal’ of remote working, it has lightened the burden for persons with disabilities in dealing with these external barriers.

On the other hand, Martin believes that telework could be part of the solution for hiring persons with disabilities in the workforce. Yet, it would not prevent the need for creating an inclusive physical environment.

“We have to be very careful not to present 'Telework' as the magical solution to the employment of persons with disabilities.”

Martin, Senior Disability Specialist, International organization

Martin explains that working from home should not replace the fact that employers and different stakeholders would need to exert efforts to provide accessible work premises and public transportation. Able and disabled employees will benefit from better infrastructure, and it would be optional to work some days between the office and home.

4.3.3 FLEXIBLE WORK ARRANGEMENTS

Flexible working arrangements were one of the critical factors praised by several respondents, emphasizing that employers have finally recognized that working remotely is doable and flexible working arrangements may not necessarily affect performance.

“Can't this job be done from home?”

Aarushi, Director of Innovation and UK Programme Delivery, NGO

One of the main challenges that persons with disabilities faced before COVID-19 was convincing their employers of flexible work arrangements such as working remotely from home or modifying their work schedule. Aarushi tackles the fact that the pandemic has presented an opportunity for employers to experience in real-time that the work structure has shifted and having flexible work arrangements could address the needs of all persons with and without disabilities.

“Nowadays, because of technology, the possibility of working from home can increase, but even on the technological level, there are still many additional challenges pertaining to persons with disabilities.”

Bashir, Executive Director, International NGO (Visually challenged)

Bashir believes that despite the progress witnessed over the last few decades on technologies for persons with disabilities, more efforts need to be made for full inclusion. Technology companies are embracing inclusion more than ever by providing digital solutions for different types of disabilities to enhance communication and digital accessibility. With the advancement of technology, built-in accessibility features, voice recognition, closed-captioning videos are now available on mainstream devices. However, there are still efforts to be made to overcome digital accessibility barriers.

4.4 Digital vs. Physical Accessibility

4.4.1 INFORMATION TECHNOLOGY

Nowadays, technology plays a significant role more than ever before in the digital economy. Technology can provide a unique opportunity for persons with disabilities if adequate efforts are made to ensure persons with disabilities are equipped with the proper tools to thrive in the digital sphere.

“Technology can be a gamechanger in terms of accessibility barriers.”

Aarushi, Director of Innovation and UK Programme Delivery, NGO

Aarushi emphasized the role of technology and how it can be a solution provider for accessibility barriers. For example, a person who has hearing impairment has accessibility features built-in a computer or training programs that are available online.

“Information technology became the way forward to close the gap for persons with disabilities through digital accessibility and access to information.”

Nadia, NGO Founder and member of the National Council for PwD

Nadia highlighted that the advancement of technology improves lives for persons with disabilities through access to information and digital platforms.

“Technology has widened the spectrum for persons with disabilities by offering wider employment opportunities than they ever had before.”

Dilya, Social Development Specialist, International Organization

Dilya affirms that there is no doubt that technology will open up employment opportunities for persons with disabilities. However, one needs to remember that technology is not the silver bullet that will fix everything because the technology works within the broader ecosystem.

4.4.2 ASSISTIVE TECHNOLOGY

“While the potential of technology exists, it doesn’t mean that everybody gets access to the technology that they need.”

Dilya, Social Development Specialist, International Organization

There are challenges when it comes to service delivery. Dilya stated that technology products were developed in western nations and their entire financing and procurement structure are dependent on how society works. For instance, in the USA, there are different sources to receive assistive devices at work. The entire financing structure and the affordability becomes a massive challenge in other countries. In contrast, the employer may not be under a legal obligation to provide assistive technology, or government-funded programs or suppliers may not even exist or import custom

duties, making the device even more expensive. Technology may exist, but that doesn't mean it exists in all local communities.

“There is still a lot of work to do to make sure that communication-based platforms and employment technology are accessible for all persons with disabilities. We need to take into consideration the needs of each group of persons with disabilities to make sure that we are pursuing or establishing an inclusive technology in place.”

Bashir, Executive Director, International NGO (Visually challenged)

Bashir emphasizes the importance of enhancing accessibility standards of technology for all types of persons with disabilities. For example, web content should be accessible by following the international web standard guidelines for making web content accessible to screen readers or other adapted technologies.

However, with the COVID-19 pandemic, efforts have been made to develop built-in accessibility features in mainstream tech devices in a short period.

“Many existing platforms in a record time have significantly increased their accessibility features - automatic captioning ...etc. All this has happened in 5/6 months in a process that would otherwise happen at a much slower pace, or maybe never at all.”

Martin, Senior Disability Specialist, International organization

Martin explains that these built-in accessibility features are now available in our mainstream devices, saving time and cost if appropriately implemented.

“There is a lack of knowledge on how many accessibility features are on your software and mainstream devices.”

Dilya, Social Development Specialist, International Organization

Dilya explains that employers and persons with disabilities may not be aware of the built-in accessibility features already existing in our mainstream devices. Even though these built-in accessibility features may help enhance communication, it does not exclude the fact that there may be some challenges that need intervention.

“The availability and affordability are key.”

Aarushi, Director of Innovation and UK Programme Delivery, NGO

Aarushi highlighted that access to assistive devices might be challenging in terms of affordability and ICT infrastructure. Aarushi stated that the cost is essential and universal design will play an important role. If Microsoft or google started having an in-built accessibility feature - it could bring down the cost. For an inclusive approach, Aarushi stated that the universal design concept is critical because it targets diverse disability types.

“A lot of the tech companies want to supply to governments as it’s a large employee.”

Dilya, Social Development Specialist, International Organization

Dilya highlighted that tech companies take an interest in governmental institutions as a large clientele. Dilya stated that the government should mandate all digital products to be accessible. Therefore, it becomes a service to a broader society.

“For those who lost their jobs in developing countries because of the pandemic and confined to their homes, do they have the infrastructure [that would allow them] to work from home using technology?”

Bashir, Executive Director, International NGO (Visually challenged)

Bashir emphasizes that persons with disabilities in developing countries may be more likely to have poor broadband access due to inaccessible ICT infrastructure. Bashir stated that a lot of work needs to be done by governments, the private sector, and tech companies to ensure that these countries' infrastructure can open up opportunities for persons with disabilities to use technology to work from home and continue to be involved in their society.

“You have all these technologies, but if you do not know how to use them, then the whole technology becomes useless.”

Aarushi, Director of Innovation and UK Programme Delivery, NGO

Aarushi stresses the importance of obtaining digital skills literacy as part of a holistic approach to maximize the opportunities that digital solutions provide for persons with disabilities. Several respondents agreed that obtaining digital literacy is not optional. Any person who seeks employment, whether able-bodied or disabled, has to learn how to use technology and cope with the technological advancement of today's modern world.

4.5 Supply vs. Demand Equation

4.5.1 BUSINESS CASE

The future of work for persons with disabilities and the labor market is changing, and it is crucial to adapt to those changes by meeting the actual needs of the mainstream labor market. The supply and demand equation illustrates the concept of employers' needs and attributes they are looking for, while the supply represents the skillset of persons with disabilities that matches with the job market.

Bashir, a blind person, reflects on his challenges and struggles to enter the labor market.

“For those of us who have been to special institutions for persons with disabilities - we know for a fact that these institutions have not done a good job preparing us to enter the labor market because of the poor education we have received. Plus the fact that these institutions do not prepare us to pursue any career that will correspond to the needs, requirements or demands of the mainstream labor market.”

Bashir, Executive Director, International NGO (Visually challenged)

Given the role these institutions in Egypt have played for so long in society, employers in public or private sectors have this stigma that persons with disabilities cannot contribute to their business. Therefore, persons with disabilities cannot pursue a sophisticated career beyond the scope of basket weaving, music, or Quran recitation for the blind.

“Private companies are interested in their bottom lines profits, and what is my return on investments?”

Dilya, Social Development Specialist, International Organization

Several respondents agreed that one of the reasons employers may be reluctant to hire persons with disabilities are the misconceptions of extra cost to accommodate their needs. The employer may think that they are paying additional money for “extra luggage,” which may require a personal caregiver and workplace adjustments that may not be worth all the hassle.

With Egypt’s new disability law (10), several respondents described the benefits of incentivizing employers and firms through tax exemption schemes once they hire persons with disabilities.

“The law has provided financial incentive which is tax exemption and also the push that firms need to comply with the implementation of 5% employment quota.”

Nadia, NGO Founder and member of the National Council for PwD

Nadia explains that the law was formulated with precision and an incentive mechanism that lures businesses to increase the hiring for persons with disabilities. Furthermore, with the 5% quota, companies are required to comply with the law, and in both cases, it is a win-win situation.

“Private companies care about their public images, shareholders and how the public views them and to be an employer that is known to be inclusive and diversity by supporting employees with persons with disabilities.”

Dilya, Social Development Specialist, International Organization

Dilya explains that giant companies such as Microsoft, Apple, Uber, and Google seek awards and recognition platitudes that acknowledge the company’s inclusiveness and diversity in hiring persons with disabilities. It reflects on the overall public image and can also create incentives for the business case.

“Findings of a survey shows that those barriers were perceived by companies who had never employed persons with disabilities but when asked about employers who had experiences in hiring persons with disabilities - it was quite clear that the actual reality is much easier.”

Martin, Senior Disability Specialist, International organization

Employers who have never hired persons with disabilities feel it is too complicated and lacks to see the business case of employing persons with disabilities. It's good for companies to hire persons with disabilities for a more diverse workforce, staff motivation, and a positive impact on the rest of the staff. Employing persons with disabilities benefits the general workforce and has a positive effect on making products more inclusive.

“When u invest in employees with disabilities, you are investing in enhanced productivity, supporting workplace atmosphere which feeds into your employer loyalty, employers’ satisfaction and these can be monetized to benefit the business bottom line.”

Dilya, Social Development Specialist, International Organization

Dilya explains that the outcomes of hiring persons with disabilities could enhance the overall work environment. Dilya added that studies show that the return on investment in monetary dollar figures is higher than just the idea of the cost of reasonable accommodation.

Bashir highlights the economic impact of employed persons with disabilities that may influence the growth and development of any country.

“The major issue is that society, in general, is still lacking the awareness about the role of persons with disabilities in the development of the economy of any country just by becoming active employees and able to become more independent economically that can contribute to the development of the society.”

Bashir, Executive Director, International NGO (Visually challenged)

Bashir stated once persons with disabilities join the labor market, their consumption and purchasing capacity increase by becoming more independent economically. The only way of doing that is to mobilize the private sector and any business enterprise to open up to include persons with disabilities.

“Everyone knows why there is a business case. Now it is about the HOW – How to hire persons with disabilities?”

Aarushi, Director of Innovation and UK Programme Delivery, NGO

The business case for hiring persons with disabilities is quite developed by now. However, the problem that faces the majority of companies and firms is the “How-to” hire persons with

disabilities and close the gap of employment. Lack of awareness was one of the main challenges facing firms and employers.

4.5.2 SKILLS & TRAINING

Investment in inclusive education and skills development programs inclusive for persons with disabilities is crucial for the full participation of persons with disabilities in the job market.

“You have to invest in developing the skills set of that workforce because otherwise with all the best intentions, they are going to come into a job market and be forced to compete with persons without disabilities who have had every advantage they had lacked, and it’s an unfair competition – it will further marginalize them.”

Dilya, Social Development Specialist, International Organization

Dilya explains the employment cycle may be highly affected and at risk for persons with disabilities if not equipped with the proper skill set that matches the needs of the labor market. Dilya stated that it is essential to ensure that persons with disabilities can engage in mainstream vocational training programs and higher education programs.

“You enter a job with some skills, but you have to develop many other skills over time to grow, develop, and get promoted.”

Dilya, Social Development Specialist, International Organization

Dilya stated that employers sometimes provide training to help employers grow through training or certification programs - but are these programs open and inclusive for persons with disabilities? It is important to ensure that they have the same equal opportunities; otherwise, persons with

disabilities will experience a lack of promotion opportunities and upward mobility, upskilling and reskilling has to be inclusive.

“Obvious consequence of COVID-19 is the exponential increase in the need for IT professionals, cybersecurity and big data, whether high level or entry-level.”

Martin, Senior Disability Specialist, International organization

Martin highlighted the importance of developing initiatives that would lead persons with disabilities to obtain the digital skills and competencies to access these jobs. Martin stated that even though not all groups of persons with disabilities will benefit equally from technology, but there is a huge potential with adequate training that all persons with disabilities will receive a fair share of these new digital jobs.

DISCUSSION

COVID-19 pandemic has significantly accelerated the digital economy and generated new global trends that would exponentially impact increasing employment for persons with disabilities in Egypt. The results indicate that despite the unique opportunity that digital jobs can offer, there are still a number of barriers that may threaten the inclusion of persons with disabilities in the workforce and exacerbate the existing inequities and disparities that existed before COVID-19. For one thing, technology is a good option for leveling the field, but it may not be available, as and when needed, in developing countries for persons with disabilities. Additionally, following the pandemic, and the projected return to the workplace, even on a partial basis, there still needs to be accommodations made at the workplace for the benefit of the PwDs.

Challenging the overall spectrum of understanding disability has to begin with the enforcement of laws and introducing new systems of policies that help promote the rights of persons with disabilities to inclusion and full participation in all areas. By implementing legislation that promotes and protects the rights of persons with disabilities in the workforce, the law ensures affirmative measures and actions are taken from political leaders following the top-down approach. Hence, anti-discrimination laws against persons with disabilities in the workforce will be reinforced across all employing firms with consideration to employers' incentives and tax exemptions for providing proper accommodations and promoting inclusiveness in their company. Effective monitoring and regulatory mechanisms are critical to ensure the implementation and compliance with the legislation.

The employment cycle starts with a quality education system that equips persons with disabilities with the tools that match the needs of the mainstream labor market. The schooling and learning deficit experienced by many persons with disabilities can become the greatest obstacle to earning an income as adults and may further exacerbate poverty and exclusion. Therefore, creating an inclusive education system will ensure that persons with disabilities can pursue higher education in different specialties and overcome the stereotype that persons with disabilities' capacities are limited to a particular low-wage traditional job. The labor market today has more sophisticated demands and requirements; it is critical to prepare persons with disabilities to match, meet and compete with the needs of the labor market.

Breaking the myth and fears of employers on hiring persons with disabilities can be achieved through raising awareness. The results indicate several initiatives undertaken to address these myths and negative stereotypes to increase knowledge and sharing experiences. For example, the Peer to Peer platform is an initiative to gather corporate firms, international organizations, and NGO's to engage

in open discussions about the inclusion of persons with disabilities in the workforce and how to implement disability inclusion policies and practices in their workplace. It is shown that private sector companies are more responsive to learn and listen from other companies who have gone through the positive experience of hiring and retaining persons with disabilities.

Furthermore, the Disabled Persons Organization (DPO) role has proven to be vital in advancing persons with disabilities in the workforce. There is often a need for guidance and technical support in the initial phase of creating an inclusive workplace for any corporate firm. The 'handholding' concept conveys the role of DPO as a mediator to guide and address the needs of a disabled employee, such as reasonable accommodation and assessment of accessibility in the workplace. Also, building capacity by providing basic knowledge training on disability etiquettes among management and employees.

Transitioning to the digital economy has proven to be an unprecedented opportunity for the inclusion of persons with disabilities in the digital labor market. The COVID-19 pandemic is the first global pandemic accompanied by a solution to solve the unemployment disparities for persons with disabilities due to the advancement of technology and communication, which has leveled the field among disabled and non-disabled persons. Some of the businesses that survived the impact of the lockdown were able to rapidly adapt to the crisis by working remotely with technology deployment.

Even though there is uncertainty about returning back to normal life before the pandemic, however, the consequence of COVID-19 has led to an exponential increase in the need for digital jobs, which ranges between IT professional, cybersecurity, big data, web designers, digital marketing, and communication services (whether high level or entry-level). Currently, there is a big gap in terms of the demand and supply side; initiatives that focus on investing in digital skills and accessible online training to access these jobs will ensure persons with disabilities get a fair share of these new digital jobs.

The concept of working remotely through digital jobs could be a solution for persons with disabilities facing external barriers such as inaccessible physical infrastructure, inadequate public transportation, and lack of workplace accommodations. This analysis supports Shur et al. (2020) findings, whereas employers may be more willing to hire persons with disabilities for home-based work positions is due to lower concerns of restructuring workplace accommodations. However, ‘telework’ should not be conveyed as the magic stick that will resolve accessibility barriers facing persons with disabilities. Employers should not ignore their obligation to make their workplace accessible; continuous efforts need to be made by employers to make their workplace inclusive and accessible.

Despite the progress we have witnessed over the last few decades on assistive technologies for persons with disabilities, there are a lot of efforts that need to be made to ensure full inclusiveness and accessibility for all disability types in the digital sphere. 1) Affordability and availability of ICT infrastructure are the foundation to guarantee that persons with disabilities can access online training, job hunting, and working online. 2) Enhancing web and application accessibility standards in compliance with “Web Content Accessibility Guidelines (WCAG)” ensure full access to information and communication. 3) Adopting the concept of universal design in mainstream devices, such as built-in accessibility features, can bring down the cost of assistive devices and cover diverse types of disabilities.

CHAPTER FIVE | CONCLUSION

COVID-19 pandemic has hit persons with disabilities hardest. To build back better, persons with disabilities must be in the front and center of these efforts for a sustainable and inclusive recovery. With the rise of the digital economy due to the COVID-19 pandemic, digital jobs have opened the door to close the gap of unemployment for persons with disabilities.

Technological advancements have contributed significantly to the acceleration of the digital economy by creating new forms and structures of work. Mobilizing efforts by investing in digital technology can present a unique opportunity for persons with disabilities to finally break discrimination by introducing a new era of an inclusive digital labor market in Egypt.

Moving forward, building the ICT infrastructure to be accessible and affordable is a dealbreaker to entering the digital labor market. The government needs to ensure that there are policies and regulations that protect persons with disabilities in the digital labor market by mandating web accessibility and setting requirements for employers, online platforms, and universities to comply with the international accessibility standards. Social protection schemes can be redesigned in a way to cover the expenses of internet connectivity and the cost of assistive technologies.

The visibility and awareness of promoting persons with disabilities in the workforce are higher than before, and the private sector realizes that they can no longer ignore this situation. Supporting disabled employees by providing equal job opportunities, online training, promotions, and upward mobility will foster career growth and improve their livelihoods.

Every institution has a major role in promoting a positive environment that allows persons with disabilities to be fully productive in the workplace. Incorporating disability in all diversity and

inclusive practices not only fosters their full integration in the workforce but is a step forward towards recognizing the fundamental rights of persons with disabilities to have equal access and opportunities as anyone else on all measures. Behavioral change is necessary and could only be achieved by a top-down commitment. Altering the perceptions of employers and staff is a starting point for a ripple effect of spreading this practice among people and the community.

Digital jobs and accessibility will be the new trend for enhancing employment and inclusion for persons with disabilities if adequate efforts are made in a disability-inclusive manner. We need to make sure not to fall into the same trap of leaving some people behind. There is no longer an excuse for ignoring mainstream disability inclusion in any development operations. If we do not adopt the approach of inclusion and accessibility in the digital sphere, this means that we have not learned a lesson from the pandemic, which will only lead to the exclusion and rise of the disability digital divide in accessing the digital labor market.

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