

# Impact of Information and Communication Technology on Employment of Persons with Disabilities (PWDs)

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## *Abstract*

*In this paper impact of ICT on employment of persons with disabilities has been studied. The aim is to increase the participation of disabled person in society and for shaping their future for the sustainable development of an economy. Today technology has become essential for our survival at workplace or for carrying out our day to day tasks. Technology also facilitates disabled people in retaining and obtaining employment. If we further throw light on disabled people then technological devices can help them to reduce physical and mental barriers. Information and communication technologies (ICTs) provides a user interface which allow people with disabilities to better integrate socially and economically by way of experiencing information, learning & teaching aids, personal communication, interaction and access to various educational facilities. When we talk about accessibility issues for disabled people, then removing barriers and providing access to technology is of paramount importance. To meet the standards of digital inclusion technology has already taken place in the digital market. But question arises are these technological interventions successful enough to grab the attention of persons with disabilities? Are these technological interventions successful enough to create confidence among persons with disabilities (PWDs)?*

**Keywords:** Disability, Employment, Sustainable development, ICT, PWDs etc..

## INTRODUCTION

According to World Health Organization (WHO), Disability is a term which covers impairments, physical and mental limitations, and participation restriction. Disability is not an inability in fact it is the ability to perform the tasks differently. An impairment is a problem in overall human body function or on structure, or a limitation which creates difficulty for a disabled person to execute various functions; and the participation

restriction is a problem experienced by a disabled person in social and mental settings in life situations (Md.J.A. Zahid et al, 2013).

In 2016 Lok Sabha had passed "The Rights of Persons with Disabilities Bill" which conveys various extra added features for disabled people. In the RPWD Act, 2016, the list of covered disabilities or diseases has been extended from 7 to 21 acceptable conditions and it now also includes various other conditions like cerebral palsy, dwarfism, muscular dystrophy,

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acid attack victims, hard of hearing, speech and language disability, specific learning disabilities, autism spectrum disorders, chronic neurological disorders such as multiple sclerosis and Parkinson's disease, blood disorders such as haemophilia, thalassemia, and sickle cell anaemia etc.

**Highlights of Disabled People in India: -**

As per the Census 2011, In India out of 121 Cr population, 2.68 Cr persons are 'disabled' which is the 2.21% of the total population of India. Amongst the disabled population further bifurcation is 56% (1.5 Cr) are males and 44% (1.18 Cr) are females. In total population, the male and female population are 51% and 49% respectively.

Population, India 2011			Disabled Persons, India 2011		
Persons	Males	Females	Persons	Males	Females
121.08 Cr	62.32 Cr	58.76 Cr	2.68 Cr	1.5 Cr	1.18 Cr

Source of table: Census of India, 2011

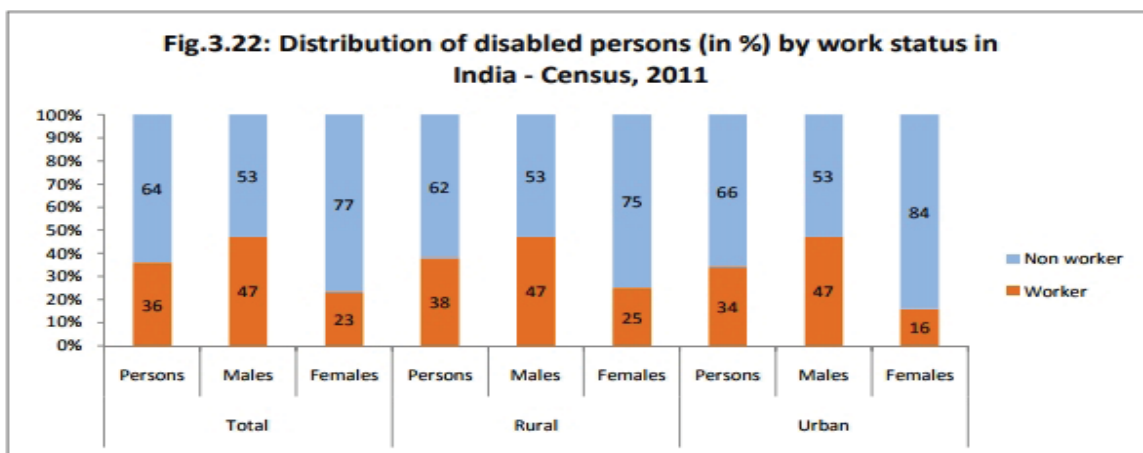
**Highlights of Employment of Disabled People: -**

Employment is an essential element for an independent life for both disabled and non-disabled person. Studies shows that it is a foremost aspiration of people with disabilities in India to meet their daily health, societal and psychological requirements.

As per the data of Census 2011 in India, For the empowerment of disabled population in India, the attainment of education, employment and active participation in economic activities required at the prime level. The Census 2011 highlighted that, nearly one third of the total disabled population is working.

At all India level, 36% of the total disabled persons are workers. Amongst the male category disabled persons, 47% are working and amongst female disabled, only 23% are working.

In rural India, 25% of the female disabled persons are working, while in urban India, the corresponding figure is 16% only. If we talk about Sustainable Development Goals (SDGs) 'Persons with disabilities' or 'disability' are specifically mentioned 11 times and 'Persons in vulnerable situations' are specifically mentioned 6 times.



Source: Census of India, 2011

**Role of ICT as a driver for PWDs Employment: -**

According to (Raja et al. 2013), ICT is emerging as a key driver to gear up the successful employment of persons with disabilities. In context to disabled people technology arises some questions like how persons with disabilities build company ready skills, how they manage their day to day requirements at workplace, how they do their work, how do they interact and socialize with their superiors and subordinates. Indeed, technology has made human life easier and comfortable personally and professionally. We as the social beings are fortunate enough to explore the magic of using technology like usage of Emails, social media platforms, and web-enabled multimedia contents. Work processes in daily life are increasingly shifting from manual mode to online mode with the adoption of cloud-based content, online content management system, document sharing, software applications, internet-based audio and video communications, various HRM practices as well etc.

Getting important information on a click is a blessing for a disabled person, at the same time it has made life simpler for people with disabilities. Technology product ranging from motorized wheel chair to cell phone for deaf people to communicate easily has been making life of PWD (People with Disability) more convenient.

According to Angela, B. M. (2015), Past studies have shown that the large majority of PWD in India are capable of productive work, in the bulk of cases without the need for aids or appliances.

According to Khetarpal, A. (2014), ICT allow people with disabilities to comfortably integrate socially and economically into their personal and professional settings. ICT becomes the gateway to employment.

Ministry of Social Justice and Empowerment, 2013, In the context of the present study based in India, where the government is trying to engage in a

discourse about rights and barrier-free environments for the disabled population.

Traditionally persons with disabilities had lower job success, including less pay, few employment opportunities for advancement as compared with their counterparts who do not have any disability. But now a day's disabled persons are even more likely to have employment even if another member is also working in a family.

But today for obtaining employment, ICT plays the vital role because now a day's recruitment & selection, training & development, making compensation benefits announcements, performance management systems are often online. There are many organizations who follows Green HRM practices under their corporate social responsibility programme. Where they conduct recruitment & selection, training & development activities online so as to reduce paper and cost. Organizations have also realized that accessible measure should be taken which should usable by disabled population.

Digital technologies break traditional barriers for communication, interaction, and access to information for persons with disabilities. Accessible ICT can uplift the level of persons with disabilities across different life domains including education, employment, e-governance for documentation, financial inclusion etc.

**Methodology**

This study is exploratory in nature. Based on secondary data which is collected from various sources as per requirement of the study. Data has been taken from the journals like Emerald, ProQuest etc., websites of ministries/departments, ministry of social justice and empowerment etc. which are relevant to ICT accessibility measures for Persons with disabilities. For the researcher, extensive literature would help to continue with the study.

**ICT initiatives taken by Companies to facilitate Employment of PWDs**

As we have studied above how technology had actually changed the life, considering the need of hour many companies put forward their steps as an initiative for the betterment and upliftment of persons with disabilities as follows: -

1. IBM has started a "Human Ability and Accessibility Center" in India. The purpose of this initiative is to modify and use technology to make the workplace more manageable for differently-abled employees not just for IBM but for other companies as well. This initiative also planning to collaborate with government

agencies on accessibility-related policy and standards in the country.

2. Federation of Indian Chambers of Commerce & Industry (FICCI) and National Centre for Promotion of Employment for Disabled People (NCPEDP): New Delhi Smart City Proposal Analysis NDMC smart city envisages the vision, where it talks about universal access to the city centre with the special focus on persons with disabilities.
3. Accenture: - In 2017, Accenture has recently launched a series of grants, worth Rs 48 million, to its non-profit partners, Dr. Reddy's Foundation, Anudip Foundation and EnAble India.

Initiatives	Support
<b>GROW skilling programme of Dr. Reddy's Foundation's</b>	For persons with locomotor disabilities across India with locomotor and hearing impairment, this initiative focused on their communication and work-readiness skills at workplace, also on skills for targeted service industries, such as information technology (IT), hospitality and retail. The programme also helps disabled persons to stay connected and to get suitable jobs related information.
<b>Specially Abled Vocational Education (SAVE) programme OF The Anudip Foundation's</b>	In West Bengal and Odisha programme is being tailored to cater the needs of physically and visually challenged. It's a customized programme which provides IT and business process outsourcing specific training information by employer to the employee for the requirements and available positions.
<b>Enable India</b>	Namma Vaani programme disabled persons are able to share their stories through interactive voice response, in fact they can use mobile phones to create an interactive, inclusive social platform where they can create a network for themselves, but also receive information related to employment opportunities, government schemes and skills development programmes.

4. Microsoft has been granted a patent for a brain control device that can give users mind control powers to operate apps easily with just their brains via device, without any body movement. By using sensor-equipped head bands, the device automatically could ideally interpret neurological data to have users open and use apps with thoughts instead of gestures," it recognized.

### Suggestions

It is indeed a truth that for the overall development of an economy, regulatory bodies should ensure complete accessibility of facilities and services by the PWDs.

1. For the inclusion of persons with disabilities, manufacturers should focus on manufacturing disabled friendly products and services like everyday products such as washing machines, microwave, air conditioners, refrigerators, all types of vending machines, self-service public devices used in shopping malls, airports, railway ticketing, printers including 3D printers, scanners, lifts, elevators, and musical instruments and services like ordering food, bill payment etc.
2. India is culturally and linguistically diverse, the organisation should also provide services in regional languages to the disabled persons. Success of accessible India is possible but necessary actions has to be taken now which further contributes for the GDP and for making happy life for a disabled person.
3. There are some barriers to the inclusion of disabled people like stereotypes and indifferent attitude of employer and co-workers. Organizations should think about spreading positive word of mouth among masses. This can be possible by means of using ICT, social media etc.

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