Breaking Barriers: Enhancing Employability for the Sensory Impaired in India

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ABSTRACT

This research paper explores the challenges and opportunities faced by sensory and speech-impaired individuals in the Indian job market. Through a combination of literature survey, qualitative interviews, case studies and survey analysis, the paper identifies key barriers to employment while also highlighting successful initiatives that promote their inclusivity in the workplace. The findings emphasize the need for a multifaceted approach to inclusion, addressing both technological and physical adaptations, alongside continuous dialogue and training within organizations. The study concludes with recommendations for improving job market accessibility and fostering a more inclusive environment that works towards the integration of these individuals.

Introduction

The World Health Organization (WHO) defines disability as impairment, limitation, or restriction in activity caused mainly by health issues and environmental factors (WORLD REPORT ON DISABILITY, 2023). Worldwide, about one billion (15%) individuals face some form of disability, and 20% have severe functional limitations. (Bulat et al., 2017).

According to the Census of 2011, there are approximately 26.8 million persons with disabilities in India (about 2.21% of the total population), a marginal increase, from 21.9 million in 2001, over 10 years. Among these, a significant number of individuals have sensory and speech impairments, with hearing impairments of 6% to 26.9% in various community-based studies, and speech disabilities at about 7% of persons with disabilities (Saikia et al., 2016). These figures underscore the importance of specialized training for the sensory and speech-impaired individuals to facilitate their inclusion in the workforce, ensuring them equitable job opportunities (Das & Richards, 2021).

Objective of the research paper

Individuals with sensory and speech impairments in India, or anywhere in the world, often face substantial barriers to full economic and social integration, with limited access to employment opportunities. Despite India's progress in disability rights and inclusivity, the job market remains largely inaccessible for a considerable portion of this community. This gap not only undermines the potential contributions of these individuals, but also reflects a broader issue of social and economic exclusion.

The objective of this research paper is to explore the needs of sensory and speech-impaired individuals for integrating into a competitive job market. It uses primary and secondary research to explore the following three aspects:

Constitutional Provisions: What are the provisions within India's constitution for the inclusion of sensory and speech- impaired individuals in the job market? What are some of the challenges India faces to ensure the effective implementation of these constitutional and legal provisions for enabling equal rights for the deaf, mute and blind?

Barriers to Employment, Skills Analysis and Job Roles: Who are the sensory and speech impaired; what skills do they bring; and what challenges do they face in the job market? What job roles could they perform, and what are the global practices for hiring and training such individuals for the job market?

The Indian Perspective: What are the perspectives of employers and social organizations working with such individuals? How does a sensory-disabled individual experience the workplace?

Methodology

This research paper used both qualitative and quantitative techniques to gain comprehensive insights into the employment landscape for individuals with sensory and speech impairments in India, including:

- **Literature Review**: A thorough literature review was conducted to provide a theoretical foundation for the research. Sources included academic papers, government reports, legal frameworks, and industry studies related to disability rights, employment, and accessibility in India. The review focused on existing barriers to employment for sensory and speech-impaired individuals, the role of assistive technology in the workplace, and global best practices in inclusive hiring. This literature formed the basis for identifying key challenges and potential solutions for improving accessibility in the Indian job

market.

- **Survey of Employers**: A structured survey was administered to 82 firms across various industries in India to understand their hiring practices, attitudes toward employing individuals with disabilities, and the challenges they face in creating inclusive workplaces. The survey included questions about previous hiring experience, openness to hiring individuals with visual or sensory impairments, specific hiring policies, recruitment methods, and the accommodations provided for employees with disabilities. The survey was distributed electronically, and responses were collected over a two-month period. Quantitative data from the survey was analyzed to identify trends and patterns in employer behavior, and to gauge the current state of inclusivity in the private sector. Data collected from the surveys was analyzed to identify key trends and insights into employer behavior and perceptions.

- **Interviews with Individuals with Disabilities:** To capture experiences of individuals with sensory and speech impairments in the workplace, an in-depth semi-structured interview was conducted with a blind employee. The primary focus of the interview was to explore the challenges they encounter in obtaining and maintaining employment, the role of assistive technologies in their daily work, and their recommendations for improving workplace accessibility. The visually impaired employee provided valuable firsthand insights into the technological and physical barriers that still exist in certain workplaces.

- **Interviews with Employers and Organizations:** Interviews were also conducted with employers who have integrated individuals with sensory and speech impairments into their workforce. These interviews aimed to gather insights into successful inclusive practices, challenges faced by organizations, and the impact of hiring individuals with disabilities on workplace culture and productivity. The interviews with 2 companies - **Mirchi & Mime** and **JP Morgan** - were targeted at highlighting best practices in inclusive hiring. Additionally, interviews with representatives from social organizations like **Skill Shakti**, which supports neurodiverse individuals in gaining employment, were conducted to understand the role of vocational training programs and the importance of ongoing support for disabled employees.

Constitutional Provisions on Disability in India, and Ground Realities

Supporting the rights of the disabled

The Constitution of India ensures legal support for the rights of all citizens, including the disabled, by promoting for their justice, freedom, equality, and dignity. It mandates the State to provide equal treatment to all, specifically making provisions for the welfare of persons with disabilities, under the Eleventh and Twelfth Schedules of Article 243G and 243W respectively (Ganvir & Gundecha, 2020). Not only several legal acts *(Box 1)* make provisions for the disabled in India, but judicial judgements have also upheld rights for the disabled. Other provisions like special infrastructure, government schemes, and educational initiatives have supported the disabled.

Specific Judicial Cases for Upholding Rights

The Indian judiciary, particularly the Supreme Court of India, has played a crucial role in upholding the rights of persons with disabilities. In 2019, the Supreme Court upheld the **rights of a visually impaired candidate** to appear for the civil services examination with the necessary accommodations, setting a precedent for inclusive practices. (Dhabarde et al., 2022). In the case of **Vishaka vs. the State of Rajasthan (1997)** (Legal rights of the disabled in India, 2014), the Supreme Court set down guidelines to prevent sexual harassment of women in the workplace, which also applies to women with disabilities (Invisible Victims of Sexual Violence: Access to Justice for Women and Girls with Disabilities in India, 2018). This judgment has been instrumental in ensuring a safer work environment for all women, including those with disabilities.
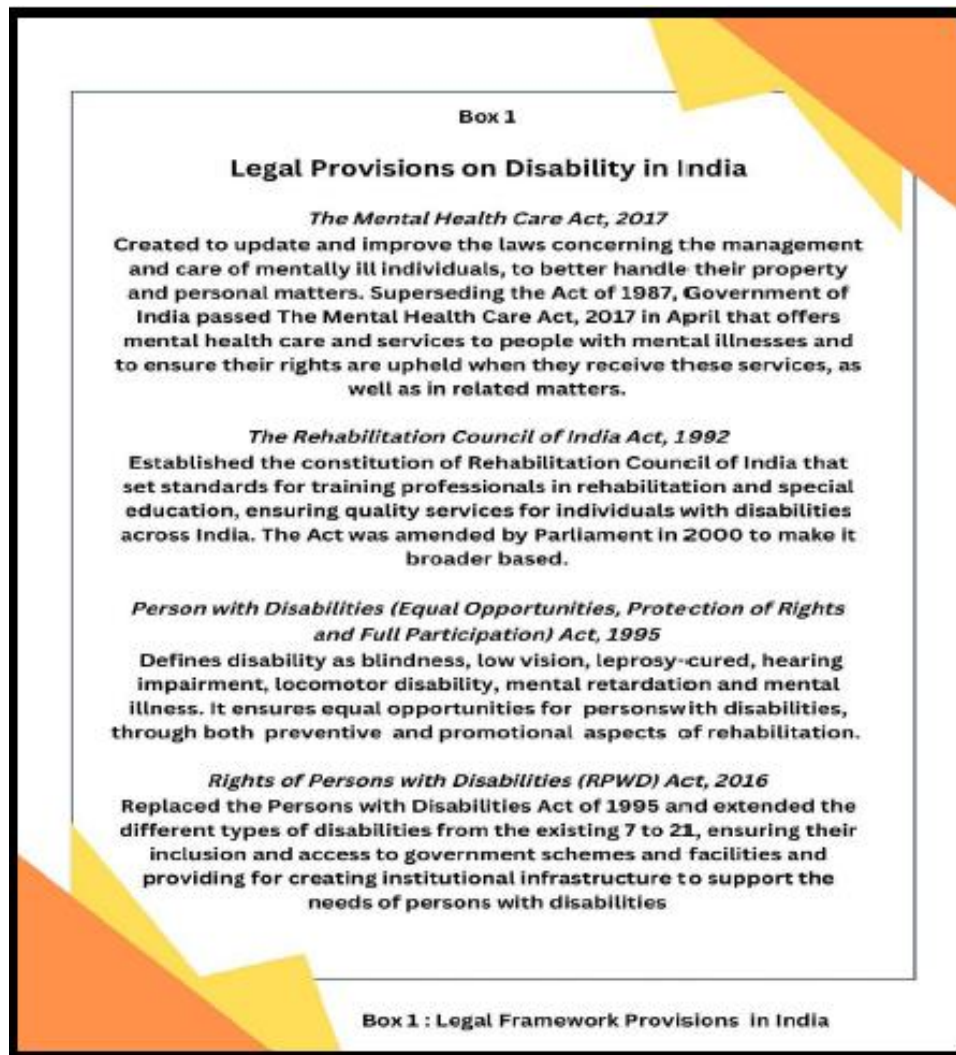
Accessible Infrastructure Initiatives

Various state governments have initiated programs to enhance accessibility for the disabled to public transport and buildings. The Delhi Metro Rail Corporation (DMRC) has implemented measures to make metro stations accessible to persons with disabilities, including tactile paths, ramps, and elevators (Mittal Agarwal & Agarwal, 2018). This initiative demonstrates a commitment to upholding the rights of individuals with disabilities to access public transport.

Educational Rights

The Right to Education Act of 2009 mandates free and compulsory education for children aged 6 to 14 years, including children with disabilities. The Act has led to the establishment of inclusive schools and special education programs, ensuring that children with disabilities have access to quality education. Organizations like The National Association for the Blind (Singal, 2019), (https://nabcentreforwomen.org/ , n.d),run schools that cater specifically to visually impaired children, providing them with the necessary resources and support.

Government Schemes

The Indian government has launched various schemes aimed at empowering persons with disabilities, such as the Deendayal Disabled Rehabilitation Scheme (DDRS) (Sachdeva & Jose, 2010), which provides financial assistance to NGOs working for the welfare of persons with disabilities. This scheme has facilitated the establishment of vocational training centers and rehabilitation services across the country. Government of India's National Skill Development Corporation (NSDC) provides specialized training for visually and sensory impaired individuals to improve their employability. Partnering with NGOs and industries, NSDC offers courses in IT, hospitality, and customer service, adapted with assistive technologies like screen readers and Braille tools. By collaborating with employers, NSDC promotes inclusive hiring practices and workplace accommodations, enabling individuals with disabilities to gain meaningful employment and economic independence.

Box 1

Legal Provisions on Disability in India

The Mental Health Care Act, 2017
Created to update and improve the laws concerning the management and care of mentally ill individuals, to better handle their property and personal matters. Superseding the Act of 1987, Government of India passed The Mental Health Care Act, 2017 in April that offers mental health care and services to people with mental illnesses and to ensure their rights are upheld when they receive these services, as well as in related matters.

The Rehabilitation Council of India Act, 1992
Established the constitution of Rehabilitation Council of India that set standards for training professionals in rehabilitation and special education, ensuring quality services for individuals with disabilities across India. The Act was amended by Parliament in 2000 to make it broader based.

Person with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
Defines disability as blindness, low vision, leprosy-cured, hearing impairment, locomotor disability, mental retardation and mental illness. It ensures equal opportunities for persons with disabilities, through both preventive and promotional aspects of rehabilitation.

Rights of Persons with Disabilities (RPWD) Act, 2016
Replaced the Persons with Disabilities Act of 1995 and extended the different types of disabilities from the existing 7 to 21, ensuring their inclusion and access to government schemes and facilities and providing for creating institutional infrastructure to support the needs of persons with disabilities

Box 1 : Legal Framework Provisions in India

Violations to the Rights of the Disabled

While India has made significant strides in upholding the rights of persons with disabilities through legislations, judicial interventions, and government initiatives, challenges remain. Violations of rights continue to occur due to societal stigma, discrimination, and inadequate infrastructure. Addressing these issues requires a concerted effort from the government, civil society, and the community, to create an inclusive society, where the rights of all individuals, regardless of their abilities, are respected and upheld.

Implementation of Legal Acts

The **Rights of Persons with Disabilities (RPWD) Act, 2016** aims to ensure equal opportunities and protection of rights for persons with disabilities. However, its implementation has been hampered by inadequate infrastructure, lack of awareness, and insufficient trained personnel. Despite the RPWD Act mandating accessibility in public spaces, many government buildings and public transport systems remain inaccessible to individuals with disabilities. Reports indicate that only a fraction of public buildings comply with accessibility standards. (Balakrishnan et al., 2019).

Social Attitudes and Stigma

Societal misconceptions about disabilities often lead to discrimination in hiring practices. Persons with disabilities often face social stigma and violence, leading to violations of their rights. Reports of abuse and neglect in institutions for persons with disabilities are not uncommon. A 2018 report by the **National Human Rights Commission (NHRC)** highlighted cases of abuse in care homes, where individuals with disabilities were subjected to physical and emotional violence. (A Future Without Violence, 2018).

Discrimination in Employment and Admission to Schools

Despite legal provisions, individuals with disabilities often face discrimination in hiring practices. Reports indicate that many employers are reluctant to hire persons with disabilities due to biases or misconceptions about their capabilities. A study by the **National Centre for Promotion of Employment for Disabled People (NCPEDP)** (Are Indian Organizations Disabled Friendly? - Inclusive Talent Acquisition Function for Indian Organizations, 2019) found that many qualified candidates with disabilities were overlooked for jobs due to preconceived notions about their productivity. The study showcased that only 0.5% of the workforce in India comprises persons with disabilities, highlighting systemic barriers to employment.

There have been numerous reports of schools denying admission to children with disabilities. A report by **UNICEF** indicated that children with disabilities are often excluded from mainstream schools due to inadequate facilities and a lack of trained teachers. This exclusion violates their right to education and perpetuates cycles of poverty and marginalization. (Inclusive education, 2019).

Inadequate Infrastructure Access

Many public buildings and transport systems remain inaccessible to persons with disabilities, violating their right to equality and accessibility. A report by the **Accessibility India Campaign** revealed that a significant number of government buildings lack ramps, elevators, and accessible restrooms, making it difficult for individuals with mobility impairments to access essential services. (Accessible India Campaign, 2016). Individuals with disabilities often face barriers in accessing healthcare services, violating their right to health. A study published in the **Indian Journal of Public Health** found that persons with disabilities encounter difficulties in obtaining medical care due to inaccessible facilities and a lack of awareness among healthcare providers about their specific needs. (Murthy et al., 2014).

Forced Institutionalization

In some cases, individuals with disabilities are forcibly institutionalized, violating their right to live in the community. Reports from organizations like **Amnesty International** have documented instances in India where families are pressured to place their disabled relatives in institutions due to societal stigma, leading to a loss of autonomy and rights. (Janardhana et al., 2015).

Comparison with Global Best Practices and Challenges in the Indian context

While India has made strides in establishing legal frameworks for the rights of individuals with disabilities, significant challenges remain in their implementation. By learning from global best practices and addressing the unique challenges faced in the Indian context, it is possible to create a more inclusive job market for individuals with sensory and speech impairments. (Singal, 2019).

Global Best Practices

Many countries have implemented comprehensive disability rights frameworks that include strong enforcement mechanisms, public awareness campaigns, and robust support systems for individuals with disabilities. In Canada, the **Accessible Canada Act** mandates the creation of accessibility plans by organizations, with penalties for non- compliance, ensuring accountability. (Accessible Canada Act, 2023). In the **UK,** the **Disability Confident** scheme encourages

employers to become more inclusive by providing resources and support for hiring individuals with disabilities. (Are you a disability confident employer? 2023). This emphasizes the importance of training employers, and the public, about disability rights, and the capabilities of disabled individuals. UK's **Equality Act, 2010** consolidates anti-discrimination laws in the UK, including protection for individuals with disabilities, such as those with hearing and speech impairments. In the United States, the **Americans with Disabilities Act (ADA), 1990** is a landmark civil rights law that prohibits discrimination against individuals with disabilities, including those with hearing and speech impairments, in all areas of public life, including employment, education, transportation, and public accommodations.

Challenges in Implementing Global Best Practices in India

India faces some challenges in implementing lessons from global best practices.

Cultural Attitudes: Deep-rooted societal attitudes towards disabilities in India hinder the acceptance and integration of individuals with disabilities into the workforce. Initiatives to educate the public, and employers, about the capabilities of individuals with disabilities can help reduce stigma and promote inclusivity.

Infrastructure: Despite legal acts and provisions, many public and private spaces still lack the necessary infrastructure to support individuals with disabilities, making it difficult for them to access employment opportunities.

Policy Enforcement: There is often a gap between policy formulation and enforcement, with many laws existing on paper, but lacking effective implementation mechanisms. (Naraharisetti & Castro, 2016). Establishing clear accountability measures for non-compliance with disability rights laws can enhance their effectiveness. Partnering with non-governmental organizations that specialize in disability rights can also provide valuable insights and resources for effective implementation.

Employment Barriers, Skills and Job Roles for the sensory disabled

Individuals who are blind/visually impaired, hearing impaired, or mute, face significant barriers to employment, often stemming from societal misconceptions and a lack of accessible infrastructure. This section investigates the challenges they face, what skills could they bring, and what job roles could be offered to them for their participation in the workforce.

The visually impaired or the Blind

Who are the Blind?

Blindness can be total, which means a complete lack of vision, or partial, where some perception of light and movement may still exist. In India, there are an estimated 4.95 million blind persons and 70 million vision-impaired persons, out of which 0.24 million are blind children (Shamanna et al., 2022).

Organizations that work with the Blind in India

Several organizations in India work towards the empowerment, inclusion, and support of blind individuals, offering a range of services, including education, vocational training, rehabilitation, and advocacy. These organizations support the blind through skill programs that work on Computer Training, offering courses in computer literacy, including the use of screen reading software and other assistive technologies that enable the blind to use computers effectively. They also support Braille Literacy Programs, where the blind are taught the Braille for literacy, and access to written communication and information. Training in orientation and mobility is also undertaken for them to navigate safely and independently, which is essential for their personal and professional life. Some of the organizations include:

- The **Blind Relief Association** in Delhi has served the visually impaired for over 78 years, through education, vocational training, rehabilitation, and promoting sports. They also run a Braille press.

- **Blind People's Association India** provides education, vocational training, employment support, and rehabilitation services for the visually impaired.

- **The National Association for the Blind** in Delhi is among the oldest social organizations providing employment opportunities through training programs, particularly in IT.

- **All India Confederation of the Blind** consists of various state-level associations, focusing on advocacy, skill building, capacity augmentation, and promoting employability for persons with visual disabilities. They also have a Braille press and offer community-based rehabilitation services.

- **The Indian Association for the Blind** focuses on giving visually impaired youth holistic rehabilitation through skills training and education in Tamil Nadu.

- **Mitra Jyoti** is based in Bangalore and runs South India's first private Braille press. They
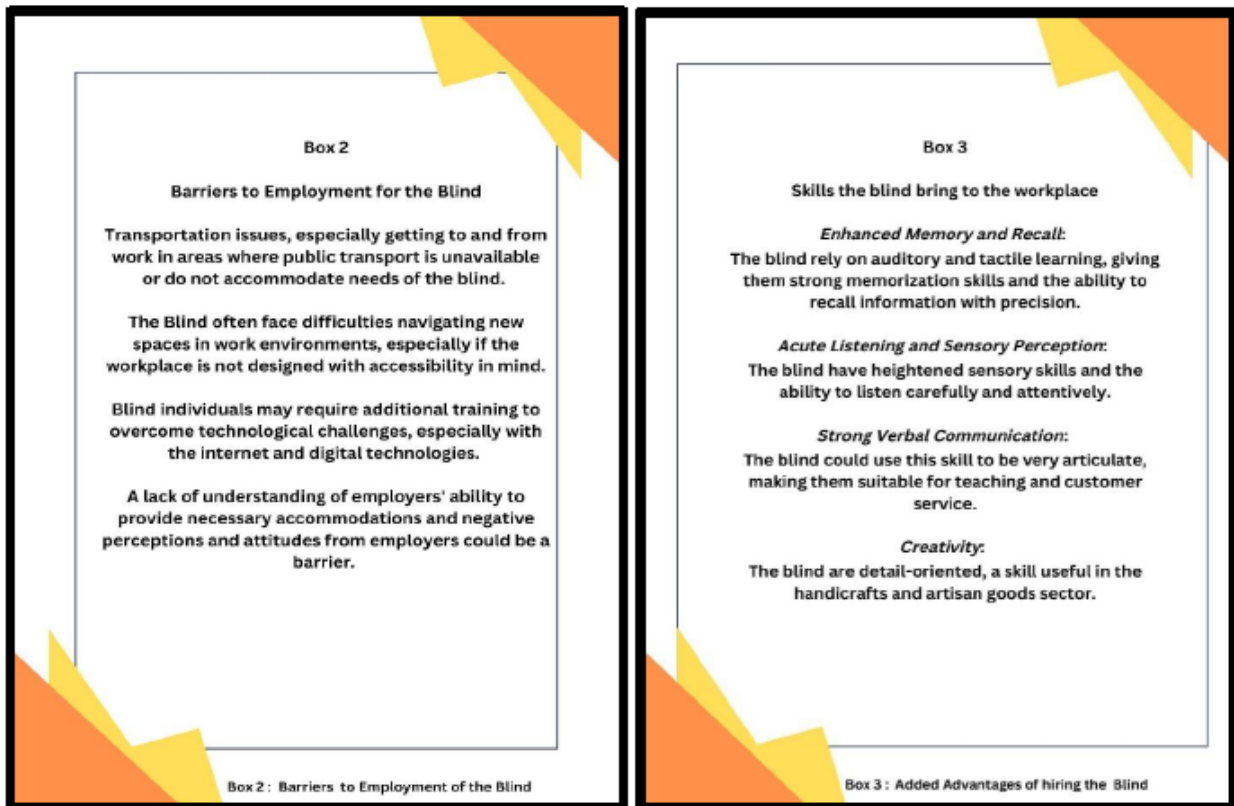
have a 'talking book library' with a vast collection of audiobooks. They also have a job placement cell to bridge the gap between visually impaired job seekers and potential recruiters.

- **Mitralaya** is the oldest institution for blind women, providing education and vocational skills.

- **Ramakrishna Mission Blind Boys' Academy**, headquartered in Howrah in West Bengal, offers education, vocational training, and rehabilitation services specifically for visually impaired boys.

Possible job roles for the blind

While the blind face many challenges in the workplace (Box 2), they also bring valuable skills (Box 3) to the workforce. With proper training, they can effectively integrate into specific job roles, like:

- **Massage Therapy**: Trained in massage therapy, they can excel because of their heightened sense of touch.

- **Hospitality**: They could be a good resource for housekeeping, and the food and beverage industry.

- **Education and customer service**: They could bring their detail-oriented skills to translation, education, and customer service.

- **Handicrafts and Home Industry Skills**: They could contribute to the handicrafts, home products, and other artisan goods sector. Skills in crafts, weaving, and other hands-on skills could lead to self-employment.

- **Telephone Operation/customer service representation**: They could get jobs in switchboard operation, information services, and call centers, and use assistive technology like screen readers, to navigate computer systems to manage customer inquiries over the phone or chat.

Box 2

Barriers to Employment for the Blind

Transportation issues, especially getting to and from work in areas where public transport is unavailable or do not accommodate needs of the blind.

The Blind often face difficulties navigating new spaces in work environments, especially if the workplace is not designed with accessibility in mind.

Blind individuals may require additional training to overcome technological challenges, especially with the internet and digital technologies.

A lack of understanding of employers' ability to provide necessary accommodations and negative perceptions and attitudes from employers could be a barrier.

Box 2 : Barriers to Employment of the Blind

Box 3

Skills the blind bring to the workplace

Enhanced Memory and Recall:
The blind rely on auditory and tactile learning, giving them strong memorization skills and the ability to recall information with precision.

Acute Listening and Sensory Perception:
The blind have heightened sensory skills and the ability to listen carefully and attentively.

Strong Verbal Communication:
The blind could use this skill to be very articulate, making them suitable for teaching and customer service.

Creativity:
The blind are detail-oriented, a skill useful in the handicrafts and artisan goods sector.

Box 3 : Added Advantages of hiring the Blind

Global Best Practices on integrating the Blind into the workplace

Individuals who are blind or visually impaired face unique challenges in the job market, but advancements in technology and global best practices are paving the way for improved employability.

- **Inclusive Hiring Policies**: In the USA, companies like **Microsoft and SAP** have implemented inclusive hiring practices that actively seek to recruit individuals with visual disabilities. Microsoft's **Disability Hiring Program** focuses on creating a diverse workforce and provides necessary accommodations during the hiring process. (Masters, 2017).

- **Job Training and Support Programs**: The **Royal National Institute of Blind People (RNIB)** in the UK offers a range of services, including employment support and training programs specifically designed for visually impaired individuals. They provide resources to help individuals develop skills that are in demand in the job market, such as in IT and customer service. (Wolffe & Spungin, 2002).

- **Partnerships with Organizations**: **The National Federation of the Blind (NFB)** in the U.S. collaborates with various companies to create internship and job placement programs for blind individuals. These partnerships help bridge the gap between education and employment, providing real-world experience and networking opportunities. (Career Resources, 2023).

- **Promising Technologies:** Numerous technologies have been used worldwide to enable the blind in performing in the workplace. **Screen Readers** like **JAWS (Job Access with Speech)** (Kapperman et al., 2018), is a widely used screen reader that enables visually impaired users to interact with computers by converting text to speech. **Refreshable Braille Displays** allow visually impaired individuals to read text output from a computer in Braille. Devices like the **Focus 40 Blue** (Focus 40 Blue 5th Gen, 2023) provide tactile feedback, enabling users to read and interact with digital content effectively, which is crucial for roles that require reading and data entry. **Voice Recognition Software** like **Dragon NaturallySpeaking** (Accessibility matters, 2023) is a voice recognition software that allows users to control their computers and dictate text using their voice, significantly enhancing productivity for the visually impaired. **Mobile Applications** like **Be My Eyes** (Griffin-Shirley et al., 2017) connect visually impaired users with sighted volunteers through a live video call. **Aira,** an AI-powered service (Park et al., 2020), connects visually impaired individuals with trained agents who provide real-time assistance through a smartphone camera. Companies like **Microsoft** are exploring AR and VR technologies to create immersive training environments for visually impaired individuals, allowing users to practice job skills in a safe and controlled setting. (Shen, 2022).

The Mute or speech-impaired

Who is the Mute?

The term "mute" traditionally refers to someone who cannot speak. Organizations support those with speech impairments by providing them with vocational training, employment opportunities, and assistive technology (The Promise of Assistive Technology to Enhance Activity and Work Participation, 2017), but there remain many challenges to integrating the mute into the workforce *(Box 4).*

Organizations that work with the mute in India

Some of the organizations working with the speech-impaired include:

- **All India Institute of Speech and Hearing**: Located in Mysore, it offers professional

training, and clinical services, and conducts research in speech and hearing.

- **Ali Yavar Jung National Institute of Speech and Hearing,** located in GoI's Ministry of Social Justice and Empowerment, focuses on vocational trainings, skill and development training, for getting the deaf. They offer courses on Indian Sign Language, and computer programs like MS Office and Desktop Publishing, through NIIT.

- **Sai Swayam Society for Speech and Hearing Impaired** is a Delhi-based NGO that has been focusing on the empowerment of the community through education, skill training, and livelihood.

- **The Skill Council for Persons with Disability (SCPwD)** is an empaneled skill training partner with the Ministry of Social Justice and Empowerment, GOI.

Box 4

Barriers to employment for the mute

Communication Barriers:
The mute find difficulty in verbal communication, affecting daily interaction and participation in meetings.

Inadequate Accommodations:
While assistive technologies such as Augmentative and Alternative Communication devices exist, workplaces may not always be equipped with or willing to provide these tools for the speech impaired.

Social Isolation:
Non-verbal individuals feel isolated or excluded from team dynamics and informal networking. Because of this, co-workers and employers have misconceptions about their capabilities.

Box 4: Challenges faced by the Mute

Box 5

Skills the mute can bring to the workplace

Enhanced Observation, Focus and Attention to Detail:
The mute could develop meticulous attention to detail, especially in jobs that require careful consideration of written material or visual elements.

Strong Written Communication:
The deaf often have strong written communication skills, given that they rely less on verbal communication.

Problem-Solving Skills and Creativity:
their skills may be more enhanced for problem-solving and creative thinking.

Patience, Persistence and Resilience:
The mute possess enhanced empathy and patience, which are great qualities for team-building and customer service roles.

Box 5: Advantages of Hiring the Mute

Possible job roles for the mute

Individuals who are non-verbal or have speech impairments bring many skills to the workplace *(Box 5)*. Job roles they could do include:

- **Data Entry, Accounting and Bookkeeping**: involving the input of data into computer systems, with no reliance on verbal communication.

- **Graphic Design and arts:** a role that allows them to express ideas through designs.

- **Writer/Editor:** Whether creating content, editing manuscripts, or managing written communications, this job role can be performed without the need for speech.

- **Software Development:** like writing code, solving problems, and developing software, tasks that generally require focus and concentration rather than speech.

- **Research and Analysis:** Conducting research and analyzing data is another area where they could work.

- **E-commerce Manager**: Running an online store is another suitable role, in areas like website management, order processing, and customer service.

- **Food Services:** Preparing food in a kitchen is a hands-on job where culinary skills are more important than speaking.

Global Best Practices on integrating the Mute into the workplace

Global best practices in hiring, and advancements in technology, are paving the way for improving employability for the mute.

- **Inclusive Hiring Policies**: Companies like **Microsoft** are creating a supportive environment for individuals who are mute, including accommodations such as real-time captioning during meetings and using technology to facilitate communication, ensuring that all employees can fully participate. **Google**'s hiring policies emphasize inclusivity for all individuals. It utilizes technology such as Google Meet's live captions to assist communication and ensures that all job roles are accessible to individuals with different abilities. **IBM** provides assistive technologies, such as speech-to-text software, and offers training programs tailored to the needs of employees who are mute. **Accenture** provides sign language interpreters, text-based communication tools, and other accommodations to ensure that mute employees can effectively engage in their work environment. **Amazon**

offers communication tools such as text-based interfaces and alternative communication methods to ensure that all employees can thrive in the workplace.

- **Job Training and Support Programs: Microsoft** has a dedicated **Disability Employee Resource Group (ERG)** that provides support, mentorship, and networking opportunities for mute employees. It also offers customized training programs that include the use of assistive technologies like speech-to-text software. **Amazon** provides online learning platforms that offer text-based and visual content, ensuring that mute employees can fully engage with the material. It offers job coaching and mentorship programs that pair mute employees with experienced colleagues. **Accenture** provides programs focused on skill development, career growth, and leadership training. **IBM**'s Accessibility Academy offers training through workshops and online courses that cover communication strategies, accessibility tools, and workplace accommodations. It also provides specialized onboarding support for mute employees, including orientation sessions that are adapted to their communication needs. **Google** provides career development programs that include mentorship, skills workshops, and leadership training for mute employees, designed to help employees advance in their careers and take on new challenges.

- **Partnerships with Organizations**: In the US, NGOs like the **United Cerebral Palsy (UCP)** and **Ability Beyond** have partnered with healthcare providers and technology firms to provide individuals with speech impairments access to **AAC devices**. In the UK, organizations like **Communication Matters** and **Mencap** work with local NGOs to promote the inclusion of people with speech impairments in education and employment through advocacy. **Scope Australia**, an NGO focused on disability support in Australia, partners with tech firms and speech therapists to provide AAC devices and develop custom communication plans for people with speech impairments. They work closely with employers to adapt workplaces for individuals who cannot speak. Canada's **Neil Squire Society**, in collaboration with local NGOs, focuses on providing technology-based solutions and job placement for individuals with speech impairments. They also run public awareness campaigns to reduce the stigma surrounding speech disabilities in the workplace.

- **Promoting Technologies: Augmentative and Alternative Communication (AAC) Devices--** Augmentative and Alternative Communication (AAC) Devices like **Speech-generating devices (SGDs),** and **Tobii Dynavox**, allow individuals with speech impairments to communicate through text or symbols that are converted into speech (Read "The Promise of Assistive Technology to Enhance Activity and Work Participation" at NAP.edu, 2023).These devices can be customized to meet the specific needs of the user,

enabling effective communication in various settings. **Mobile Communication Apps** like **Proloquo2Go** (Rossi et al., 2018) are designed for iOS devices that provide a voice for individuals who cannot speak. It uses symbols and text-to-speech technology to facilitate communication. **Voice Recognition Software** like **Dragon NaturallySpeaking** (Dragon Voice Recognition Training Services, 2023) can also benefit individuals with speech impairments by allowing them to control their computers and dictate text using their voice. A **Text-to-Speech (TTS)** program like **NaturalReader** is a TTS software (Wood et al., 2017) that converts written text into spoken words. **SignAll** (Bragg et al., 2019) is a technology that translates sign language into text and speech in real-time, and facilitates communication for the mute.

The Hearing impaired or the Deaf

Who are the deaf?

The WHO estimates that in India there are approximately 63 million people, who are hearing impaired and hard of hearing. While there has been an emphasis on supporting the hearing impaired with technological resources and infrastructure, the needs of this community seem to have been ignored (Garg et al., 2009) and many hardships remain *(Box 6).*

Organizations that work with the deaf in India

In India, several organizations are dedicated to supporting the hearing impaired, offering services like sign language training, vocational training, employment assistance, legal advocacy, and social support (Singh et al., 2021). These include:

- **Hearing Impaired Enabled Foundation, All India Federation of the Hearing Impaired and National Association of the Hearing-Impaired** advocate for the rights of the deaf.

- **Indian Sign Language Research and Training Centre** focuses on research and training in Indian Sign Language to support the education and social upliftment of the hearing-impaired community.

- **Vaani Hearing Impaired Children's Foundation** advocates for the rights of every hearing-impaired child, by bringing language and understanding into their lives.

- **Society for the Education of the Hearing Impaired and Blind** provides educational and vocational training for hearing-impaired and blind individuals.

- **Action for Ability Development and Inclusion** supports children and adults with disabilities, including those who are hearing impaired.

- **The Stephen High School for the Hearing impaired and Aphasic** offers education and vocational training specifically tailored to the needs of hearing-impaired and speech-impaired individuals.

- **Hearing Handicapped Welfare Society** offers support services and advocacy for the deaf.

- **Hearing impaired Bible Society** works to provide access to the Bible in sign language for the hearing-impaired community in India.

Box 6

Challenges faced in the workplace by the deaf

Communication Barriers:
The deaf fail to communicate with colleagues who may not know sign language.

Group Meetings and Interactions:
These could be a challenge without interpreters, especially if people speak over each other or do not allow the deaf to have access to conversation.

Social Isolation:
Work-related social events could be isolating if planned without the deaf in mind.

Access to Information, Announcements and Emergency Alarms:
Information shared orally, like last-minute changes or casual conversations may not be accessible by the deaf. Safety may also be a concern if audible alarms or announcements are not accompanied with visual alerts.

Technology and Equipment:
Not all workplaces are equipped with video phones or captioned telephones that facilitate communication for the deaf. Training and development could also hence be a problem.

Box 6 : Challenges faced by the Deaf

Box 7

Skills the deaf can bring to the workplace

Visual Skills:
They have highly developed visual-spatial awareness and attention to detail.

Concentration – They have strong concentration skills.

Problem Solving :
They develop creative solutions to communicate and complete tasks, showing strong problem-solving skills.

Adaptability,:
Persistence and Resilience: Living without hearing, they become highly adaptive, flexible and persistent.

Tech Savvy:
They are usually proficient with communication technology like video-relay services and text-to-speech software, which can be transferred to various tech-based tasks.

Box 7 : Challenges faced by the Deaf

Possible job roles for the deaf

Hearing impaired individuals can perform a vast array of job roles, especially with accommodations like sign language interpretation, video relay services, and other assistive technologies. These job roles include:

- **Graphic Designer**: This job relies on visual skills to create visual content and does not necessarily require the ability to hear.

- **Computer Programmer/Software Developer**: Writing code and developing software are tasks that can be done without the need for auditory communication.

- **Accountant/Financial Analyst**: These roles involve working with numbers and financial data, and often require focus and attention to detail rather than hearing.

- **Professional Chef or Baker**: Culinary arts rely on taste, sight, and smell, and many hearing-impaired individuals thrive in kitchen environments.

- **Writer/Editor** and **Social Media Manager**: Crafting written content and editing work can be an ideal fit as it doesn't require the ability to hear. Managing digital content and online communications is largely a visual task, well-suited to someone who is hearing impaired.

Global Best Practices on integrating the Deaf into the workplace

Like for the blind and the mute, global best practices suggest for improving the employability of the deaf as they bring many hidden skills *(Box 7)* to the employee pool**.**

- **Inclusive Hiring Policies: Starbucks** has opened several "Signing Stores" globally, where all staff members are fluent in sign language, and the environment is tailored to the needs of deaf employees. **Amazon'sDeaf@Amazon** group provides support for deaf employees and promotes their inclusion. The company has also integrated captioning services and American Sign Language interpreters for meetings, training, and conferences. **Accenture** has robust inclusivity policies, including hiring deaf individuals, and making accommodations such as sign language interpreters, and modified interview processes. **Unilever** has implemented inclusive recruitment practices, including providing accommodations during the interview process such as sign language interpreters, and written communication for deaf candidates.

- **Job Training and Support Programs**: **IBM** offers training and professional

development resources that are accessible to deaf employees, including materials with sign language support and closed captioning. They also provide on-demand interpreters for various workplace functions. **SAP** has been a leader in providing accessible training programs for deaf employees. They use captioning and sign language interpreters during training sessions and meetings. SAP's focus on digital accessibility allows deaf employees to participate fully in the company's professional development initiatives.

- **Partnering with NGOs:** The **National Association for the Deaf** (NAD) works with **Microsoft** to create inclusive recruitment processes, developing accessible technologies, and providing training on effective communication strategies within the workplace. It also partners with **Google** to provide resources and training for best practices in communication, accessibility, and creating an inclusive work environment. The **National Technical Institute for the Deaf** (NTID) partners with **IBM** to recruit and train mute individuals, designing training programs where the mute employees can succeed in technical roles. The **Hearing Loss Association of America** partners with Amazon and provides it with training and resources to improve communication strategies for mute employees to succeed.

- **Promising Technologies:** These technologies use AI and tech to facilitate verbal communication for the deaf. Companies like **Purple Communications** and **Sorenson** provide VRS and VRI services that are integrated into many workplaces to help deaf employees communicate effectively. Tools like **Google Meet's Live Captions**, **Microsoft Teams**, and **Zoom** offer built-in automatic transcription that converts speech to text during virtual meetings. **Otter.ai** integrates with platforms like **Zoom** and **Microsoft Teams** to provide real-time transcription and note-taking during virtual meetings. Tools like **Slack's** accessibility features allow deaf employees to communicate using text, and its integration with other tools ensures that deaf workers have a streamlined communication experience. **MotionSavvy's UNI** is a device that uses sensors to detect sign language movements and translates them into text or speech, helping deaf employees communicate more effectively. **Bellman & Symfon** offers visual alert systems that integrate with various devices to notify deaf employees of alarms, phone calls, and messages through flashing lights and vibrations.

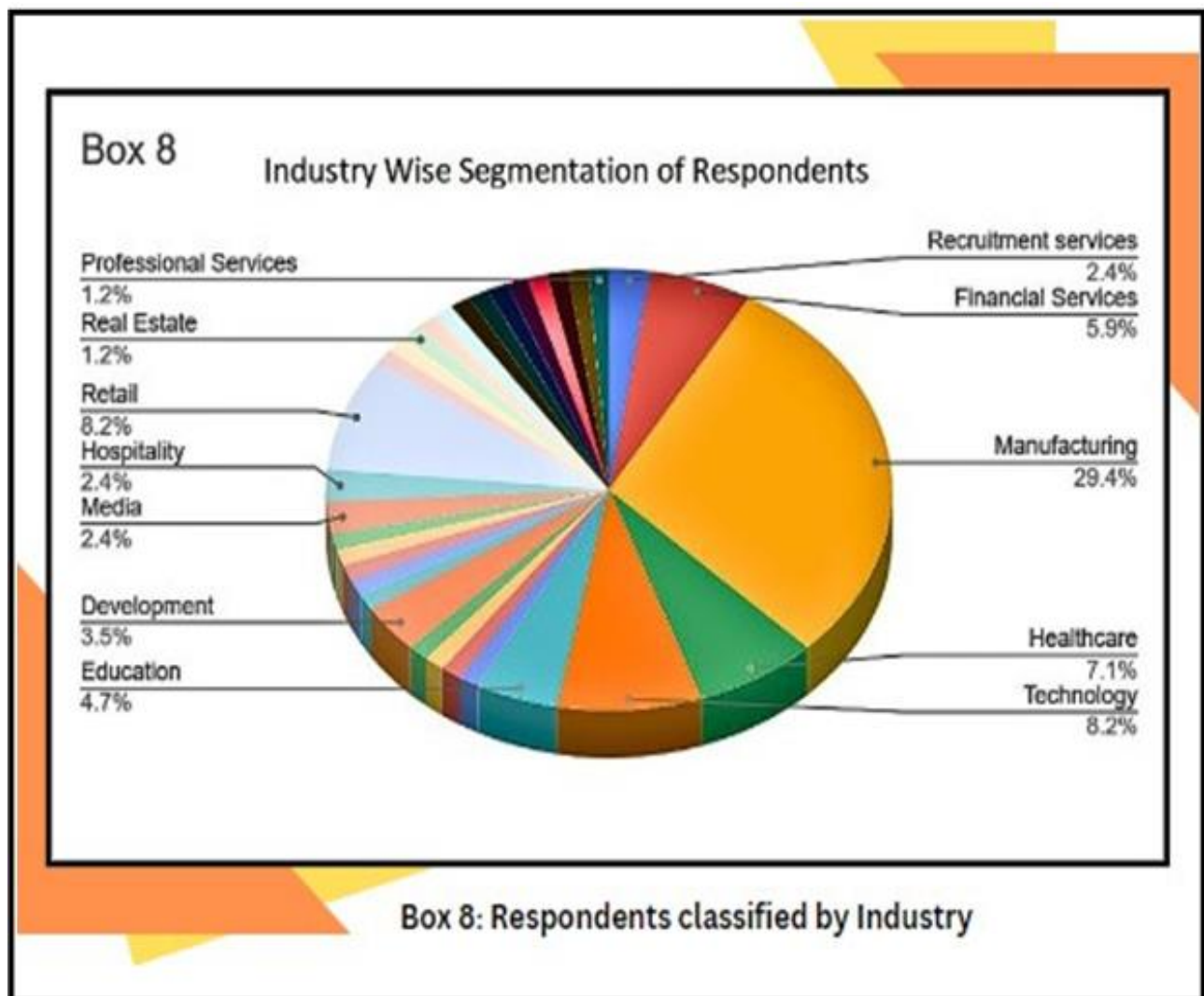**Perspectives on hiring individuals with sensory disabilities in India**
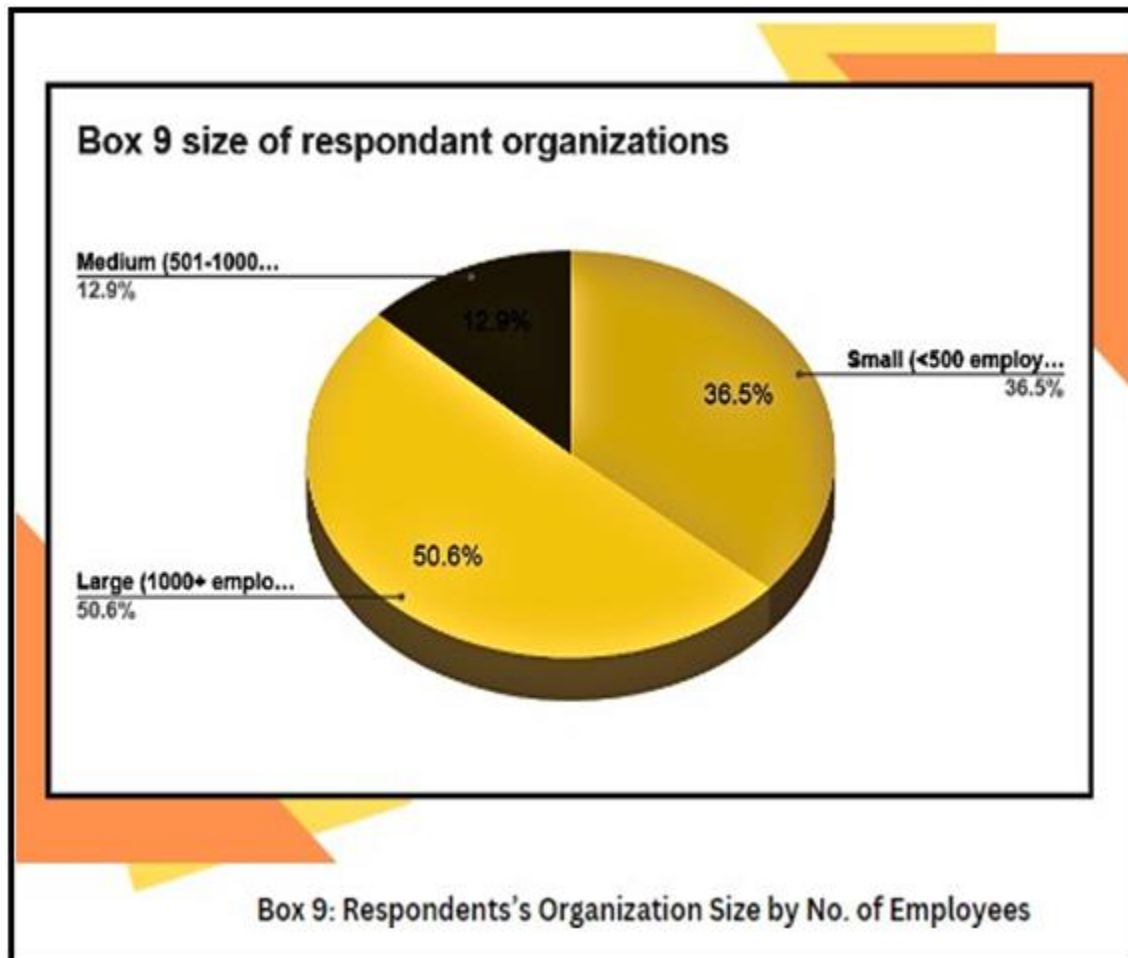
Survey Result and Findings

The employment of individuals with disabilities, especially those with visual or sensory impairments, remains a critical issue for organizations across various sectors in India. Despite the

gradual progress in disability inclusion, the majority of employers are yet to embrace these individuals fully into their workforce. This section provides a synthesis of key finding from a survey of 82 firms across different industries of varying sizes, their hiring practices for individuals with disabilities, and perceptions, along with supporting data and feedback from industry respondents.

Industry Cluster

A total of 12 industry clusters were studied through the survey. Majority of the respondents are from the manufacturing sector (29.4%), followed by retail and technology (8.2%) *(Box 8).* The professional services cluster included recruitment services, management consulting, and training.

Box 8: Respondents classified by Industry

Box 9 size of respondant organizations

Medium (501-1000...
12.9%

12.9%

Small (<500 employ...
36.5%

36.5%

50.6%

Large (1000+ emplo...
50.6%

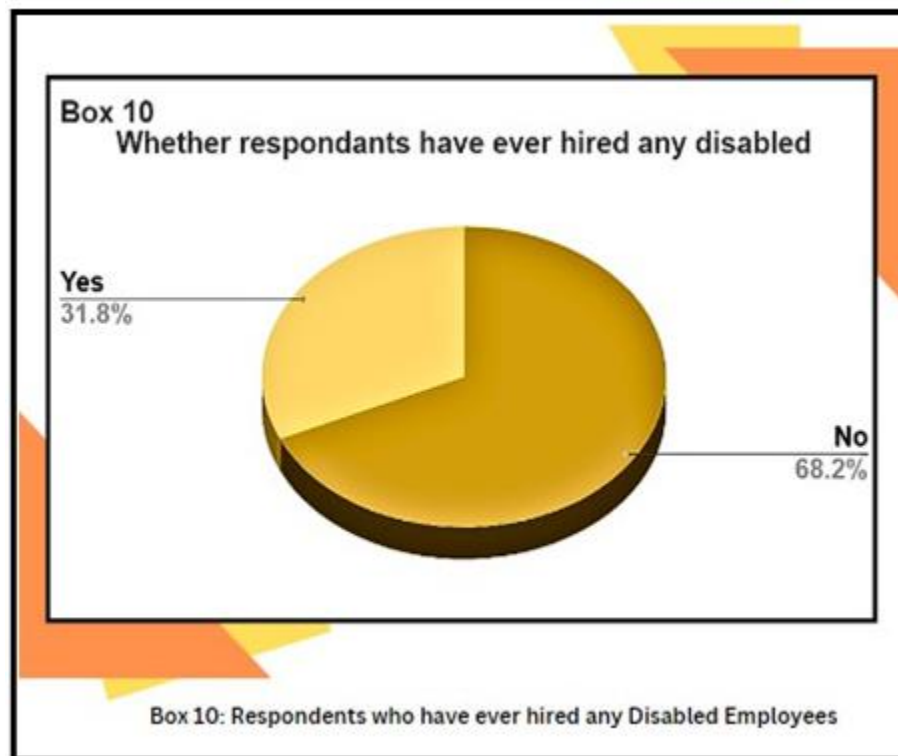Box 9: Respondents's Organization Size by No. of Employees

Sizes of Organizations

The survey spanned across different categories of industries by size, divided according to the following criteria: Small (less than 500 employees), medium (501-1000 employees) and large (1000 + employees). 50% of the survey respondents were large enterprises, followed by small enterprises, and then medium sized enterprises. *(Box 9).*

Previous Hiring Experience

A notable 68.2% of respondents have not hired individuals with visual or sensory impairments *(Box 10)*. The lack of prior hiring experience points to a significant gap in employment opportunities for individuals with disabilities. This may stem from various factors, including limited awareness, prevailing misconceptions, and uncertainties about accommodating these employees in the workplace.
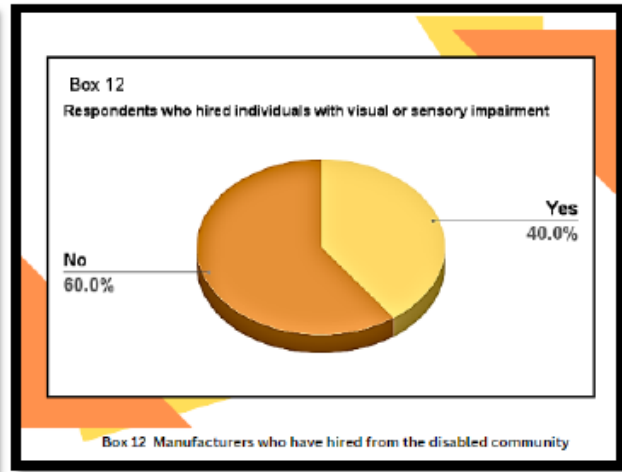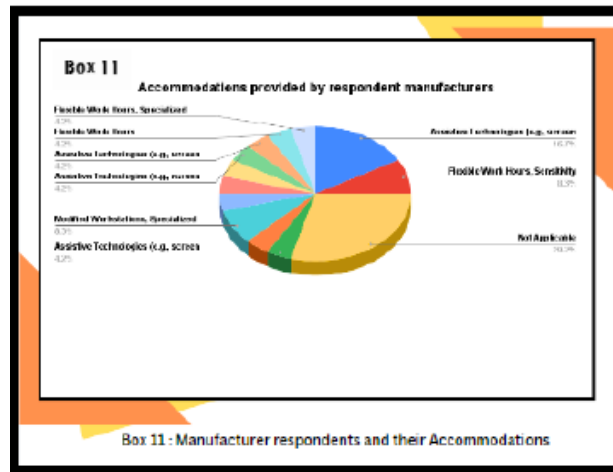
Suggestion: Awareness campaigns, coupled with educational initiatives, are necessary to showcase the abilities and contributions of individuals with sensory disabilities. These could help hiring managers and decision-makers dismantle their misconceptions that often hinder employment of sensory disabled individuals.
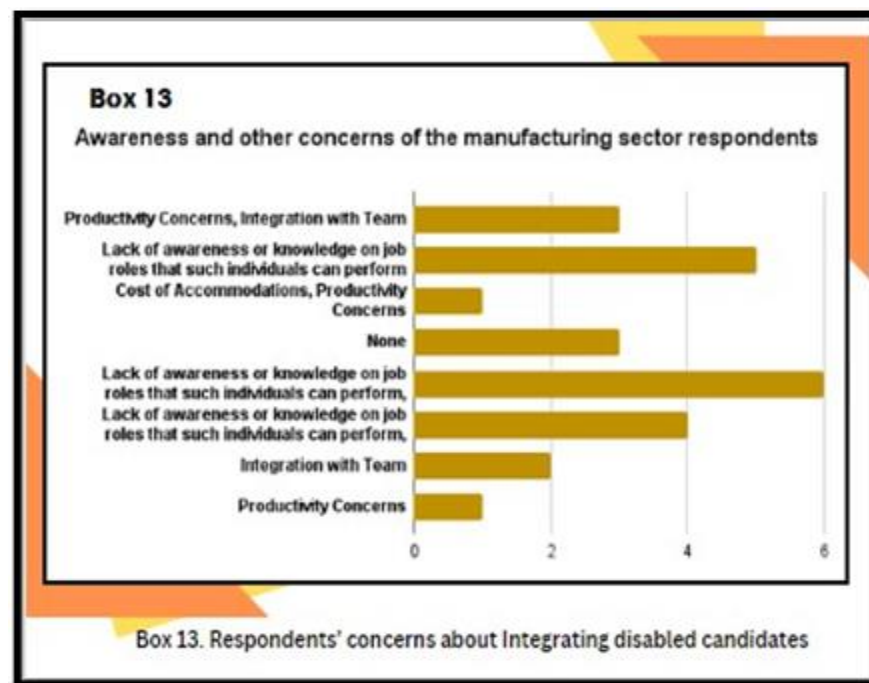

Box 10
Whether respondants have ever hired any disabled

Yes
31.8%

No
68.2%

Box 10: Respondents who have ever hired any Disabled Employees
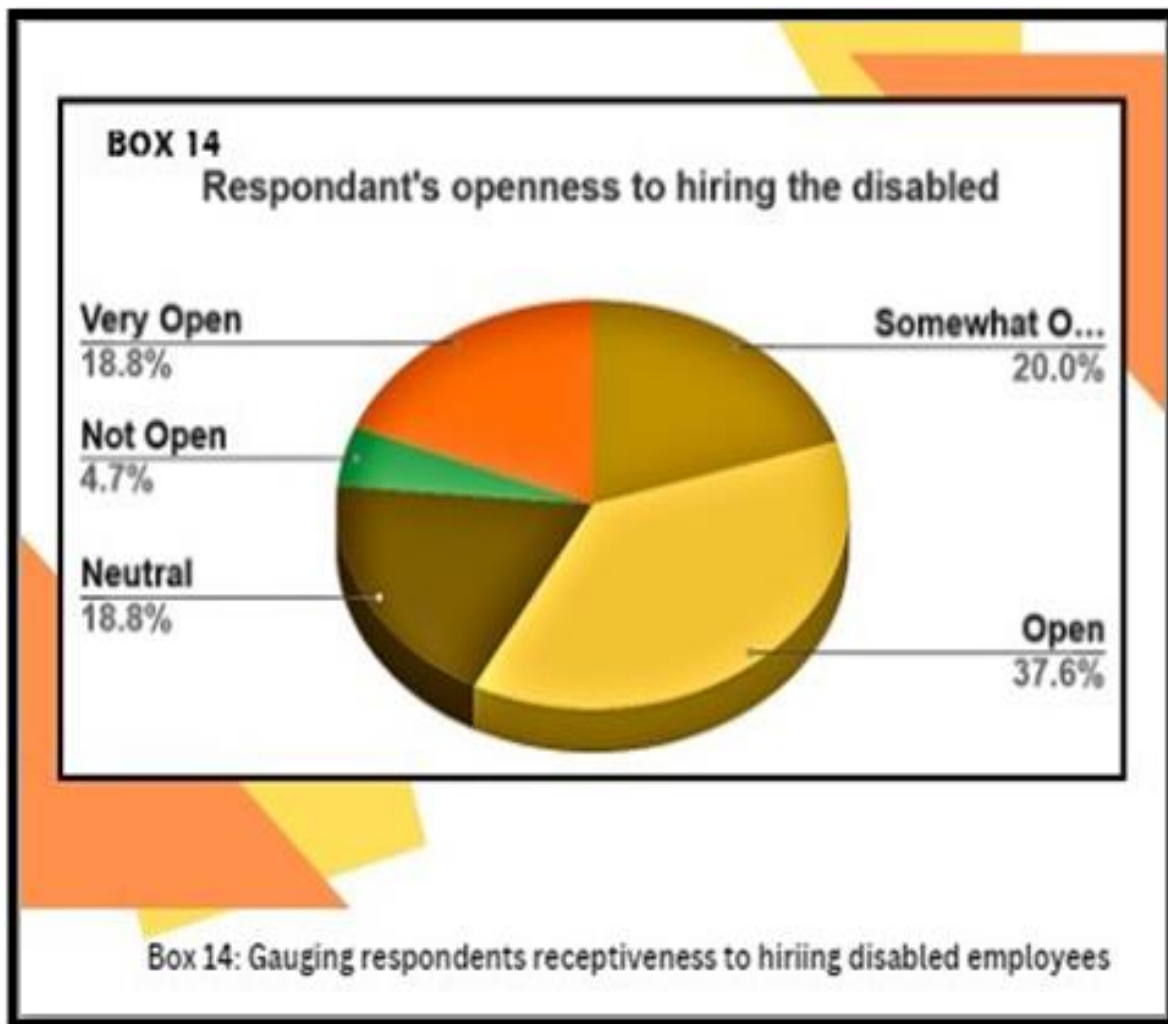
Manufacturing

The manufacturing sector emerges as the largest respondent to the survey, comprising 29.4% of responses of all respondents across various industries. Its preferences for accommodations that could aid sensory disabled individuals include assistive technologies, modified workstations, and reduced work hours *(Box 11)*. It was also observed that within the manufacturing industry data, nearly 40% of respondents had hired differently abled individuals *(Box 12)*. This shows the receptiveness of this sector to hire from the disabled pool, which can potentially lead the way to larger recruitment numbers.

Within manufacturing, the large organizations (76% of manufacturing) showed a significant opportunity to enhance inclusive hiring practices for individuals with disabilities. Despite the sector's large size, a substantial portion of these organizations (60%) lacked experience in hiring disabled individuals, and 68% did not even have specific hiring policies in place for the sensory disabled.

Box 11 : Manufacturer respondents and their Accommodations

Box 12 Manufacturers who have hired from the disabled community

Suggestion: By adopting clear policies, leveraging diverse recruitment methods, and providing necessary support and accommodations such as assistive technologies and sensitivity training, these organizations can create a more inclusive environment. This approach not only addresses productivity and integration concerns (32% amongst all hiring challenges) *(Box 13),* but also capitalizes on the perceived benefits of increased diversity and improved employee morale (16% each). Additionally, engaging with government bodies to seek support and incentives can further bolster these efforts. Ultimately, fostering inclusivity can enhance the sector's reputation, broaden its talent pool, and contribute to a more diverse and productive workforce.
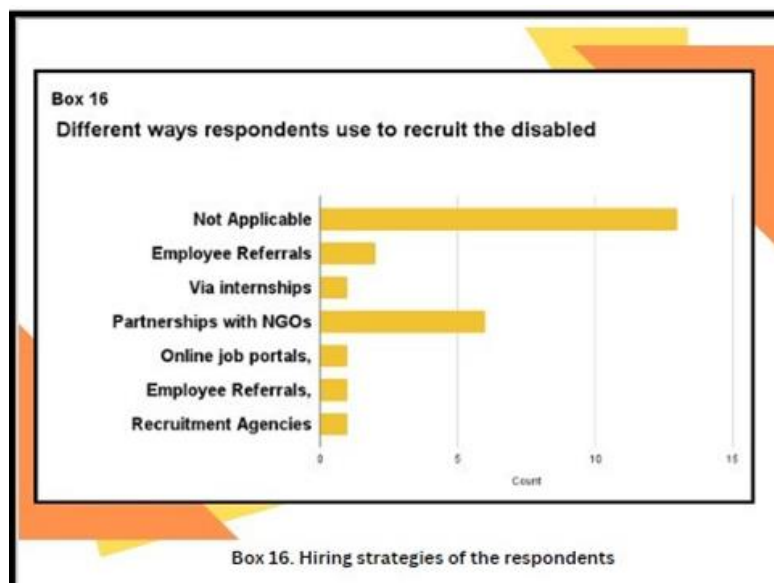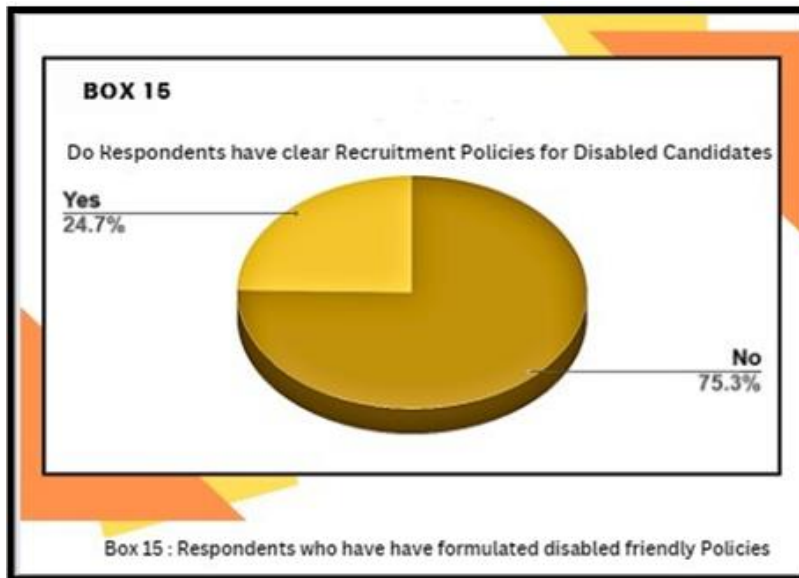

Box 13. Respondents' concerns about Integrating disabled candidates

BOX 14

Respondant's openness to hiring the disabled

Very Open
18.8%

Somewhat O...
20.0%

Not Open
4.7%

Neutral
18.8%

Open
37.6%

Box 14: Gauging respondents receptiveness to hiriing disabled employees

Openness to Hiring

A combined 76.4% of respondents are either open or very open to hiring individuals with visual or sensory impairments, reflecting a promising outlook *(Box 14).* However, 20% remain somewhat open, and a smaller segment (4.7%) are not open to the idea. The overall openness signals a growing recognition of the value that individuals with disabilities can bring to the workplace. However, the remaining neutral or hesitant respondents point to the need for ongoing efforts to foster positive attitudes toward these individuals.

Suggestion: Mentorship programs that connect organizations with employees who have successfully integrated with individuals with disabilities can be highly effective in shifting attitudes. Highlighting success stories can serve as inspiration for those who may still have reservations about disability-inclusive hiring and help shift their attitudes.

BOX 15

Do Respondents have clear Recruitment Policies for Disabled Candidates

Yes
24.7%

No
75.3%

Box 15 : Respondents who have have formulated disabled friendly Policies

Box 16

Different ways respondents use to recruit the disabled

Not Applicable
Employee Referrals
Via internships
Partnerships with NGOs
Online job portals,
Employee Referrals,
Recruitment Agencies

Count

Box 16. Hiring strategies of the respondents

Hiring Policies

A large number of organizations (75.3%) lack specific policies for hiring individuals with disabilities *(Box 15)*, which underlines the absence of formalized frameworks that promote inclusive hiring practices. The absence of structured hiring policies reflects the lack of prioritization of inclusivity within many organizations. Without clear guidelines, hiring decisions can be inconsistent and may result in missed opportunities to diversify the workforce.

Suggestions: Organizations need to prioritize the development of hiring policies that emphasize inclusivity. These policies should not only cover the recruitment of individuals with disabilities, but also outline measures for their integration and long-term support within the organization.
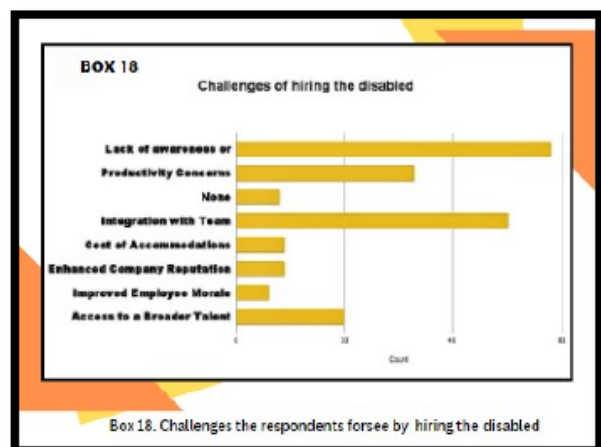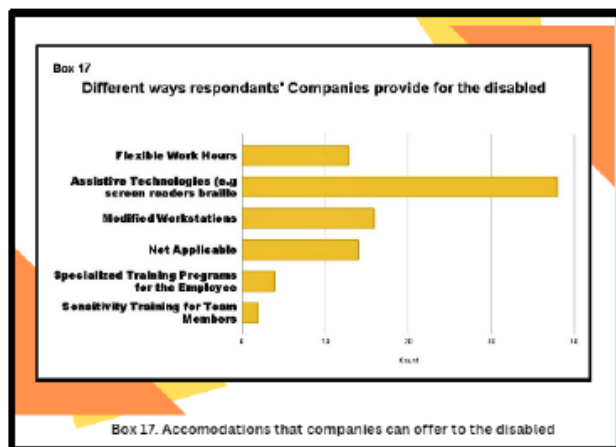
Recruitment Methods

Common recruitment methods for individuals with disabilities include partnerships with NGOs (29.4%) and employee referrals (27.1%) *(Box 16).* However, nearly half of the respondents (49.4%) indicated that this category is "Not Applicable," pointing to the underutilization of recruitment strategies for individuals with disabilities and suggesting a lack of awareness or proactive engagement in disability hiring. The reliance on NGOs reveals a narrow approach to recruitment. The absence of broader recruitment methods, such as job fairs or online platforms, limits the potential talent pool.

Suggestion: Organizations should diversify their recruitment strategies. Participating in job fairs specifically designed for individuals with disabilities and expanding online recruitment efforts can help employers tap into a broader and more diverse talent pool.

Support and Accommodations

The most common accommodations offered/could be offered by employers include assistive technologies (64.7%), modified workstation hours (56.5%), and flexible work hours (44.7%) *(Box 17).* These adjustments reflect a growing recognition of the need to adapt the work environment to suit employees with disabilities. While there is a willingness to provide accommodations, there is still room for improvement. Some organizations may be unaware of the full range of adjustments available, and regular assessments are necessary to ensure that the needs of employees with disabilities are met.

Box 17. Accomodations that companies can offer to the disabled

Box 18. Challenges the respondents forsee by hiring the disabled

Suggestion: Conducting regular assessments of policies and soliciting feedback from employees with disabilities is crucial. Organizations can learn from companies like **JP Morgan**, which have implemented robust frameworks for integrating disabled individuals through accommodations such as modified workstations, and assistive technology.
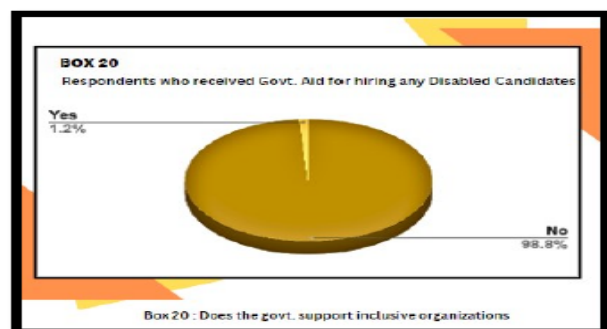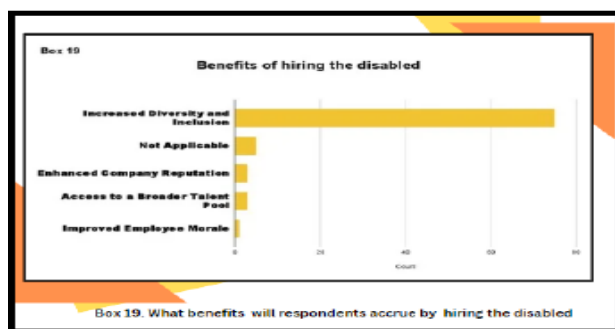
Challenges in hiring

The primary challenges identified by respondents *(Box 18)* include a lack of awareness or knowledge (57.4%), and difficulties with integration into the team (40.8%). These barriers underscore the misconceptions surrounding the abilities of individuals with disabilities. The hesitation often stems from uncertainty about how to support these employees and ensure smooth integration into teams that may not be familiar with working alongside them.

Suggestion: Sensitivity training and team-building exercises can help bridge the gap. Such initiatives foster inclusivity and create a more supportive environment for employees with disabilities, easing their integration into the workplace.

Perceived Benefits of Hiring

A significant 88.2% of respondents acknowledge that hiring individuals with disabilities can enhance diversity and inclusion within their organizations *(Box 19).* Additionally, 51.8% recognize the potential for improving their company's reputation through disability-inclusive hiring practices. This overwhelming support for the benefits of disability-inclusive hiring highlights the potential for such practices to enrich workplace culture and improve organizational performance. A diverse workforce not only enhances creativity and innovation, but also boosts a company's reputation as a socially responsible entity.

Suggestion: Organizations could actively promote their commitment to diversity and inclusion through their branding and marketing efforts. The success of restaurants like **Mirchi & Mime**, which employ disabled staff in customer- facing roles, showcases the power of inclusivity in transforming public perceptions, and increasing engagement with a brand.

Box 19. What benefits will respondents accrue by hiring the disabled

Box 20 : Does the govt. support inclusive organizations

Government Support

A resounding 98.8% of respondents do not receive any support from the Government of India for hiring individuals with disabilities *(Box 20).* The lack of government support is a significant deterrent for organizations that may be interested in disability-inclusive hiring but lack the resources to do so. Financial incentives and government-backed initiatives could encourage more organizations to adopt inclusive hiring practices.

Suggestion: Advocating for stronger government policies and support mechanisms, like tax breaks or grants for organizations that hire individuals with disabilities, could help close the employment gap. These incentives could significantly boost disability-inclusive hiring across sectors.

Survey Conclusion

The findings from the survey and the supporting data reflect a complex yet promising landscape for disability-inclusive hiring in India. While there are significant gaps in terms of prior hiring experience, formal policies, and government support, the overall openness to hiring individuals with disabilities indicates a positive shift in attitudes. Respondents expressed a clear desire for increased awareness of, and support for individuals with disabilities. The feedback highlights both, the enthusiasm for, and the challenges associated with integrating these individuals into the workforce.

While many organizations recognize the importance of disability inclusion, there is still a significant need for systemic change. Workplace environments must be adapted to be more accessible, and team members need sensitization to foster a truly inclusive culture. Awareness campaigns and education efforts are vital, and by collaborating with organizations experienced in disability inclusion, businesses can better understand how to create an accessible and supportive environment for employees with disabilities.
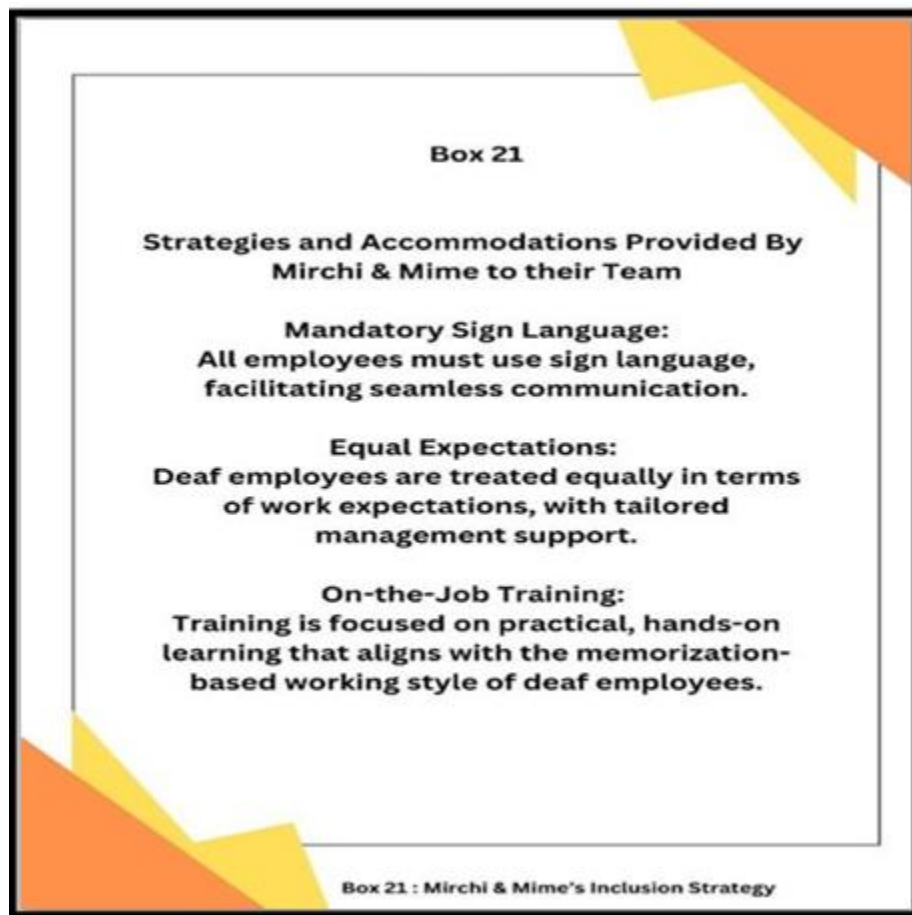
Voices from the Ground

The Employer Perspective

Mirchi & Mime's Innovative Inclusion Strategy

Mirchi & Mime, an Indian restaurant, has redefined workplace inclusion with its "reverse inclusion" model, centering operations around employees with hearing and speech impairments. This unique approach makes sign language the primary mode of communication, requiring hearing employees to adapt. By positioning the workplace as the domain of deaf employees, Mirchi & Mime empowers them, fostering a supportive environment where they feel a strong

sense of belonging and ownership. The strategies and accommodations adopted *(Box 21)* have proven highly effective, enhancing the confidence, productivity, and overall integration of deaf employees, and creating an inherently accessible and inclusive workspace.

The presence of deaf employees at Mirchi & Mime has profoundly shaped the restaurant's culture. With sign language at the core of its operations, communication is facilitated, creating a unique dining experience, and fostering mutual respect among employees. Deaf employees, working primarily through memorization and standardized procedures, demonstrate high focus and efficiency, reducing distractions and ensuring exceptional order accuracy, which enhances customer satisfaction.

Box 21

Strategies and Accommodations Provided By Mirchi & Mime to their Team

Mandatory Sign Language:
All employees must use sign language, facilitating seamless communication.

Equal Expectations:
Deaf employees are treated equally in terms of work expectations, with tailored management support.

On-the-Job Training:
Training is focused on practical, hands-on learning that aligns with the memorization-based working style of deaf employees.

Box 21 : Mirchi & Mime's Inclusion Strategy

The restaurant's commitment to equality ensures that deaf employees are held to the same performance standards as their hearing counterparts. Managers are trained to approach feedback with an understanding of the unique challenges faced by deaf employees, balancing fairness with high expectations. This approach has strengthened professionalism, responsibility, morale, and

productivity, making Mirchi & Mime a model of inclusive workplace culture. While Mirchi & Mime's approach has been successful, the company has learnt from the following challenges.

- **Adequate infrastructure**: Without adequate infrastructure, companies can struggle to make their physical spaces accessible to disabled employees. In India, this issue is more pronounced compared to Western countries.

- **Stigmas and misconceptions:** Mirchi & Mime challenges societal misconceptions about disabilities by treating deaf employees equally. The restaurant treats its deaf employees on par with their hearing counterparts, ensuring that they are held to the same standards and expectations in the workplace. This helps dismantle the sense of inability and entitlement historically associated with disabled individuals.

- **Reduced productivity misconceptions:** There are often unfounded concerns about productivity of disabled employees. Mirchi & Mime counters this by maintaining a no-compromise policy on performance, demonstrating that disabled employees are equally capable and accountable. The restaurant's continuous efforts to reinforce this sense of equality helps to reshape societal perceptions, promoting a more inclusive and fairer attitude towards people with disabilities.

- **Assistive technologies:** Implementing assistive technologies and providing tailored training for both disabled and able-bodied employees, can improve workforce integration and efficiency.
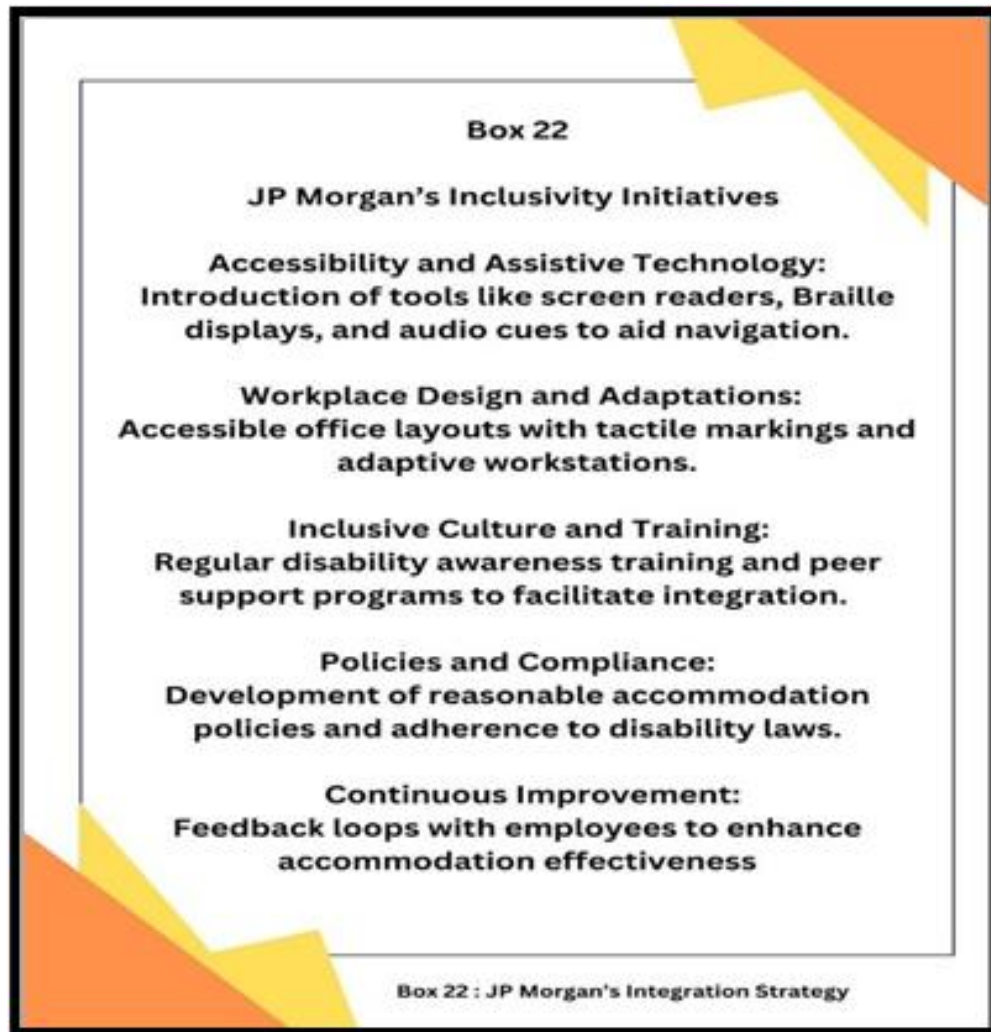
Mirchi & Mime's innovative approach of reverse inclusion has not only empowered its deaf employees, but also enriched the overall organizational culture, proving that inclusivity, when done right, benefits everyone.

JPMorgan's Path to Inclusive Excellence

JPMorgan has demonstrated a strong commitment to creating an inclusive workplace that supports employees with visual and sensory disabilities. Led by the Access Ability Business Resource Group (BRG) in India, the company focuses on driving workplace inclusion, financial health, community relationships, and business growth.

The company's initiatives *(Box 22)* have significantly increased the representation of persons with visual and sensory disabilities across various lines of business. These individuals were hired through a merit-based interview process, ensuring their skills and capabilities were recognized. A notable achievement in this effort was the development of a comprehensive Playbook, outlining best practices for hiring, developing, and providing reasonable accommodations for employees

with disabilities. Additionally, the firm established a Key Accountability Framework for leaders across the organization, underscoring the importance of diversity.

Box 22

JP Morgan's Inclusivity Initiatives

Accessibility and Assistive Technology:
Introduction of tools like screen readers, Braille displays, and audio cues to aid navigation.

Workplace Design and Adaptations:
Accessible office layouts with tactile markings and adaptive workstations.

Inclusive Culture and Training:
Regular disability awareness training and peer support programs to facilitate integration.

Policies and Compliance:
Development of reasonable accommodation policies and adherence to disability laws.

Continuous Improvement:
Feedback loops with employees to enhance accommodation effectiveness

Box 22 : JP Morgan's Integration Strategy

The inclusion of employees with visual and sensory disabilities has had a profoundly positive impact on JPMorgan's organizational culture and performance. Diverse teams, enriched by the presence of individuals with varying abilities, have demonstrated enhanced creativity and innovation, contributing significantly to the company's success. The inclusive environment at JPMorgan has also fostered greater team cohesion, mutual respect, and collaboration. Employee Opinion Surveys revealed that teams with diverse members scored higher on teamwork and leadership. This inclusivity has bolstered the company's ability to attract top talent, creating a positive work environment where employees take pride in their association with the organization. Large companies like JPMorgan encounter challenges while integrating such employees:

- **Lack of Awareness:** Initial resistance or hesitation can stem from a lack of understanding of the needs of employees with disabilities. Misconceptions or stereotypes may also create unnecessary barriers.

- **Training Gaps:** Ensuring all employees, including managers and HR staff, are adequately trained for disability inclusion, and the use of assistive technologies, can be challenging, especially in larger organizations.

- **Cost and Compatibility of Assistive Technology:** Implementing and ensuring compatibility of assistive technologies with existing systems can be expensive and technically challenging.

- **Modifying Workspaces:** Retrofitting physical spaces to meet the needs of employees with visual or sensory disabilities can be costly, and time-consuming. JPMorgan's proactive inclusion of employees with visual and sensory disabilities has strengthened workplace diversity and boosted overall organizational performance.

The Social Organization Perspective

Skill Shakti

For nearly five years, Skill Shakti has been dedicated to coaching neurodiverse adults, providing them with the tools and skills needed to thrive in the workplace. The organization has developed a unique approach that tailors its programs to meet the specific needs of neurodiverse learners, focusing on life and employability skills essential for independent living and professional success.

Skill Shakti's innovative skilling techniques include a curriculum that emphasizes the use of expressive arts, creativity, and music, to simplify complex topics such as money, and time management (***Box 23).*** This approach, combined with a peer-supported community led by industry professionals, fosters an engaging and supportive learning environment. In this relaxed yet professional setting, students present their work in class, gaining confidence and practical experience without the pressure of exams. Skill Shakti incorporates assistive technologies that cater to the visual learning preferences of neurodiverse individuals. It also partners with employers to facilitate job placements for neurodiverse adults, offering customized internship programs supported by on-site job coaches. These coaches help break down tasks, providing tailored support to both interns and their colleagues. Recognizing the unique needs of neurodiverse individuals, Skill Shakti advocates for a person-centric approach, gradually increasing work hours and responsibilities to prevent burnout and ensure success.

Box 23
Skill Shakti's Innovative Skilling Techniques

Skill Shakti is a comprehensive skill-building program designed to support diverse learning needs, particularly focusing on visual learning preferences. The program leverages a variety of assistive technologies to create an engaging and effective learning environment.

Visual Learning Tools: To cater to visual learners, Skill Shakti utilizes tools like Google Slides and other strong visual aids. These tools help in presenting information in a visually appealing and easily digestible format, making learning more interactive and enjoyable.

Modern Technologies: The program also incorporates modern technologies to enhance communication skills. For instance:

ChatGPT: This AI-powered tool assists learners in generating ideas, drafting content, and refining their writing. It can simulate conversations, provide feedback, and offer suggestions to improve writing quality.

Spellcheck: Integrated spellcheck tools help learners identify and correct spelling errors, ensuring their written communication is accurate and professional.

Voice Dictation: This technology allows learners to dictate their thoughts and ideas, which are then converted into text. It is particularly useful for those who find typing challenging or prefer speaking over writing.

Grammarly: This tool provides real-time grammar and style suggestions, helping learners improve their writing clarity, coherence, and overall quality.

Box 23 : Skill Shakti's Upskilling Initiatives

Box 24
Voices from the Ground

"We do have one technologist with hearing impairment & we have learnt to communicate well with him. But otherwise the work we are into,in most cases ,would not be suitable to be handled by visually or hearing impaired person."

"We would like to strengthen job opportunities and enhance life quality for visually impaired and other individuals who are differently abled."

Companies can become more aware of this as well as the benefits of Hiring Individuals with Visual and Sensory Impairments."

"Integrating such an individual will be a challenge as they may need a lot of support and assistance. However, still open to recruiting such person for administrative roles and train."

"We don't need or want to involve government or support we can do it ourselves but we have a lack of awareness of what they can do"

"We aren't prepared to hire this group as yet. We need to do the awareness and groundwork to evaluate the possibilities."

Box 24: Perspectives of Prospective Employers

Despite the challenges of getting corporate HR to consider neurodiverse candidates, Skill Shakti's efforts have paved the way for these individuals to succeed in various professional environments, proving that, with the right support, neurodiverse adults can be dedicated and highly effective workers.

Perspective from the Differently Abled

An interview with a visually impaired employee helped provide firsthand insights into the challenges and opportunities faced by individuals with visual impairments in the Indian job market. The interview aimed to gather qualitative data on the lived experiences of visually impaired employees, assess effective strategies for enhancing workplace accessibility, and understand the perspectives of both employees and employers regarding disability integration in the workforce.

The visually impaired individual shared experiences that revealed a mix of progress and ongoing challenges with workplace inclusivity. The employer's efforts to provide technological support were praiseworthy--*"Our workplace has adapted by providing digital copies and using screen readers with headphones"*-- and significantly improved the individual's efficiency. This

highlights the importance of technology, such as screen readers, in supporting employees with visual impairments. *(Box 24).* However, the individual also emphasized the physical barriers that remain unaddressed in certain environments. He explained, *"Another challenge is navigating the factory floor safely,"* pointing to safety risks and the lack of adequate physical adaptations in the workplace. His suggestions included *"implementing tactile floor markers, and training colleagues to assist when needed,"* which reflect a need for ongoing improvements in both physical adaptations, and team collaboration.

Insights from the survey underline the importance of initial accommodations, and continuous efforts, to assess and improve workplace accessibility. While technological tools have significantly contributed to his work efficiency, physical and navigational challenges remain a concern. Inclusivity efforts need to be multifaceted, including:

- **Enhanced physical adaptations**: Implement tactile markers, and other physical aids, to improve safety and mobility.

- **Providing training**: Conduct regular workshops for colleagues to ensure that they are aware of the needs of visually impaired employees and can assist them when necessary.

- **Fostering open dialogue**: Create feedback channels where employees with disabilities can voice concerns and suggest improvements.

Conclusion

The journey towards inclusive employment for individuals with sensory and speech impairments in India is both promising and challenging. This research has illuminated the various facets of the employment landscape for these individuals, identifying both the progress made, and the gaps that remain. Through a detailed analysis of legal frameworks, barriers to employment, and global best practices, this study has highlighted the urgent need for continued action to create a more inclusive and accessible job market.

One of the most significant findings is the role of technology in bridging the gap between individuals with disabilities and employment opportunities. Assistive technologies such as screen readers, real-time captioning, and speech-to-text software have empowered many individuals with sensory impairments to participate actively in the workforce. However, while technological advancements are a crucial enabler, they are not a complete solution. The physical workplace environment, team dynamics, and company policies play an equally important role in ensuring that these individuals can thrive professionally. The case studies of Mirchi & Mime and JP

Morgan highlight how organizations that implement inclusive policies and practices can create workplaces that are not only accessible, but also empowering for individuals with disabilities.

The findings also emphasize the importance of structured policies and support systems in promoting inclusivity. The lack of formal hiring policies for individuals with disabilities remains a critical issue, as evidenced by the survey responses. Many organizations have not yet developed comprehensive strategies for integrating sensory and speech- impaired employees, resulting in inconsistent practices and missed opportunities for workforce diversification. Creating formal policies that mandate inclusivity, coupled with ongoing assessments of workplace accessibility, can significantly improve employment outcomes for these individuals.

Furthermore, societal attitudes and misconceptions continue to act as barriers to full inclusion. While there is growing openness to hiring individuals with disabilities, as demonstrated by firms that participated in the survey (76.4% respondents expressed willingness), the remaining hesitation points to a deeper need for cultural change within organizations. Sensitivity training, awareness campaigns, and mentorship programs are crucial in dismantling the stereotypes and biases that often hinder the employment of individuals with disabilities. By fostering an environment of understanding and support, employers can tap into the unique talents and contributions of these individuals. The government's role in this process cannot be understated. The lack of government support, as revealed by the 98.8% of survey respondents who reported receiving no assistance, highlights a significant gap in policy implementation. Financial incentives, grants, and other forms of governmental support could play a pivotal role in encouraging more organizations to adopt inclusive hiring practices. Advocating for stronger government policies, and collaboration with NGOs, can help drive systemic change, ensuring that individuals with disabilities are not left behind in India's growing job market.

In conclusion, while the progress towards inclusive employment for sensory and speech-impaired individuals is undeniable, much work remains to be done. A holistic approach that combines technology, policy reform, cultural shifts, and government support is essential to creating a truly inclusive workforce. By continuing to challenge the status quo, and investing in the potential of all individuals, regardless of their abilities, India can pave the way for a more equitable and prosperous future.

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