EAI Endorsed Transactions

Enable the Disabled as Technopreneur; Understanding the Challenges

Ruhiyati Idayu Abu Talib^{1,2}, Mohd Shahrizal Sunar^{1,2,*}, Predrag K.Nikolic ³

¹Media and Game Innovation Centre of Excellence (MaGICX), Institute of Human Centered Engineering (iHumEn), Universiti Teknologi Malaysia (UTM), Malaysia

²School of Computing, Faculty of Engineering, UTM
 ³Cheung Kong School Of Art And Design, Shantou University

Abstract

To achieve its target of becoming a high income country in 2020, Malaysia has taken an initiative to adopt The Incheon Strategy to *Make the Right Real* for PWDs in Asia and the Pacific which comprises 10 goals, 27 targets and 62 indicators to address the issues of social justice and social rights regardless of race, religion and disabilities. In this paper, we discuss the plan and policies put in place in order for the government to develop an ecosystem based on the right of PWDs and community-based ecosystem that will support social mobility for PWDs. Based on the existing infrastructures provided insofar by the government, there is still plenty of room for improvement, especially in the early intervention in the context of social skills development and entrepreneurship programs for the PWDs.

Received on 05 September 2018; accepted on 20 October 2018; published on 29 October 2018

Keywords: Social mobility, Person with Disabilities (PWD), Rights of PWDs, Ecosystem, Inclusive Development, Early Intervention Programs, Entreprenuership.

Copyright © 2018 Ruhiyati. I.A Talib *et al.*, licensed to EAI. This is an open access article distributed under the terms of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/3.0/), which permits unlimited use, distribution and reproduction in any medium so long as the original work is properly cited.

doi:10.4108/eai.29-10-2018.159796

1. Introduction

The term impairment and disabled carry different meanings during medieval times because not all impaired individuals were treated as disabled [22]. Before Industrial Revolutions, the majority of the population lives in rural regions where social norms and social status across generations were comparatively fixed.[25] Everyone had a certain place in a society at that period, and as long as he or she fulfils that role, they are perceived to be part of a vital member of society. For example, a dressmaker may also be those who physically impaired or deaf and mute, but as long as she provides her services to the society, her impairment would not differentiate her from anyone else. In the 18th century, industrial revolutions shifted the social, structural and economic landscape of society

* Mohd Shahrizal Sunar. Email: shahrizal@utm.my

and created barriers to the attainment of full citizenship by disabled people.[10].

A individual is disabled in this context, not because of their impairment, but because of the unbearable structural barriers and prejudices of the society around them[11]. It is not a physical limitation restricting individuals with disabilities, but inaccessible infrastructure and adverse attitudes. The lack of disability awareness and misconceptions led to stigma against persons with disabilities and reduced their access to their right to be part of society.[5]

Social Model Disability [6, 9, 16, 23] views disability as a societal construct and collective issue – caused by the physical environment, inappropriate or inaccessible services and attitudes, and a lack of understanding - rather than one that derives from the health of an individual or medical impairment.

In the Malaysia context, the social model of disability is embedded in Malaysia's Person with Disabilities (hereinafter "PWD") Act 2008. Both the Policy and the Action Plan on disability were also put into effect together with this legislation. In 2010, Malaysia



^{*}This research is supported under Mini Social Research by Malaysia Technology and Development Corporation (MTDC) and Universiti Teknologi Malaysia (UTM).

This is an extended version of a paper presented at Mobility IoT 2018 - 5th EAI International Conference on Smart Cities within SmartCity360° Summit.

signed the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). In November 2012, Malaysia and together with other members of the United Nations Economic and Social Commission for Asia and The Pacific (hereinafter "UNESCAP") adopted The Incheon Strategy to "Make the Right Real" for PWDs in Asia and the Pacific which comprises 10 goals, 27 targets, and 62 indicators. This is to serve as part of Malaysia's strategy to move forward towards building a stronger policy framework to mainstream persons with disabilities and to ensure their effective participation in the society. Social mobility is the very first goal under Incheon Strategy, which is to reduce poverty and enhance work and employment prospects for PWDs [1].

2. Background Research

Malaysia achieves its Independence in 1957 from British and since then has progressed tremendously in the area of economic, social and international standing as a multiracial country. According to World Bank Data [12], Malaysia GDP in 2017 is 257 USD billion, compared to 1.90 USD billion in 1960. Malaysia average GDP is 87.25 USD billion from 1960 until 2016. The poverty rate had been reduced to 0.4% in 2015 from 51.2% in 1957 [13, 17]. Malaysia is on track to become High-Income Country from Upper-Middle-Income Country [8]. Despite all these achievements, disability welfare in Malaysia still has a long way to go. Previous disability research in Malaysia, albeit inadequate, found that disabled people are still subjected to manifold barriers in their daily encounters such as discrimination at a workplace and lack of accessible facilities in school.

2.1. Social Mobility

Social mobility is defined as upward or downward movement of social status for individuals, families, and households[14, 24]. From the context of PWDs, their ability to enhance their social status is closely related with their rights to enjoy opportunities in all aspects of life to ensure their full and effective participation in the society and development; equal recognition before the law and access to justice on an equal basis with others; and all forms of discrimination on the basis of disability is eliminated. Hence, it is important to increase public awareness and understanding of the rights of PWDs. Empowering PWDs through economic is very crucial in raising PWD's status and it can only be achieved through the development of infrastructures and creating a supportive ecosystem that will allow independent living in the community for PWDs. Government Plan For Inclusive Development: Eleventh Malaysia Plan 2016 - 2020[?] concluded that PWDs should be encouraged, promoted and supported to become self-employed, develop their entrepreneurship capacity own and operate their business as an ideal solution to the above objectives.

From Malaysia's perspective, a government's positive infrastructure to support the start-up economy has seen many successes as examples with start-ups like Groupsmore (acquired by Groupon in 2011) and iCar.com. Changes are inevitable for Malaysia, as with all economies closely integrated with the global economy. These changes not only affect the normal person, but also transform a PWDs prevalence and functional impact, the scale of social disparities in disability, and possibly the essential meaning of disability in an increasingly technology-dominated world.

3. Employment & Entrepreneurship for Person with Disabilities

There are a number of literature discussing challenges for PWDs regarding their opportunities in the labour force [21, 26, 27]. Among the challenges are [15];

- Inaccessible transportation,
- Inaccessible buildings,
- Negative attitudes by employers,
- Low self-esteem and
- Overprotective families

Major obstacles for PWDs regarding employment is lack of transportation. Second is stigma and prejudices that employers and society has towards PWDs. Labour force report in 2017 showed that there are 300,000 disabled people that are outside labour force. From 1999 to 2001, a total of 4,017 disabled persons were registered with the Department of Labour. Out of 4,017, a total of 2,529 disabled persons were placed in various sector of employment. [20] pointed out that, despite of 1 percent quota, it was reported that total 581 persons only were employed in public sector and less than 5,000 persons with disabilities are employed in private sector. Khor (2011) pointed out that the World Bank estimated total loss to national income between US\$1,370 billion and US\$1,940 billion worldwide due to the exclude people with disabilities from the mainstream of society. In the case of Malaysia, its loss to national income amounted to between US\$1.18 billion and US\$1.68 billion. Under a joint collaboration between Japan International Coorperation Agency and MWFCD for "Project to Support Participations of Persons with Disabilities" (2010), a special job tittle "Job Coach" has been created to become a mediator between employers and PWDs in the work place. Job Coach responsibilities are to promote employment and keep retentions rate of



PWDs. Based on the result of the project, having an inhouse Job Coach in a work place helped to increase job placement and opportunities for PWDs [19].

In Eleventh Malaysia Plan (2016-2020), more programmes will be implemented to empower productive PWDs which includes provision for more accessibility to basic education and skills training including entrepreneurship, to build relevant skills among PWD such that they are employable by the private sector and the government, in line with the target to employ at least 1% PWD among civil servants[2]. As of September 2017, there are 3,534 PWDs working in government sector compared to 1,457,175 number of government servant in Malaysia [4].

The nature of entrepreneurship itself enables a degree of freedom to provide self-income through multiple channels of distribution. The constraint of physical impairment no longer applies in this age of information and communication technology (ICT) where digital and physical reality blur. ICT provides a more flexible working environment, improved workforce involvement for PWDs and a range of new jobs[?]. Self-employment or entrepreneurship in parts of Europe does seem to be a viable alternative for people with disabilities.[?]

3.1. Challenges regarding The Person with Disabilities

Main challenged faced by the government regarding PWDs issues are collecting comprehensive and integrated data related to the actual number of PWD in Malaysia[7]. Lack of awareness of the rights and facilities available for PWDs and the stigma attached to PWDS is among the many reasons why PWDS are not registered with the authority. Without accurate data, the government will not be able to recognize and identify the disabilities in order to plan and formulate appropriate programs for the development of PWDs.

Public and private sectors also lack understanding of the requirement of the laws, regulations, and guidelines pertaining to the needs of persons with disabilities i.e. to provide PWDs' friendly facilities. Major critique regarding PWD Act of 2008 is that it's merely 'promotes' the protection of rights instead of actually protecting the rights of PWDs. Many researchers suggested that the statute needs to be amended for the empowerment and progress of the PWDs and to include a penalty clause and to get rid of any shielding provision in order to ensure its effectiveness[18, 28, 29].

Other than that, there is also a shortage of qualified teachers, lack of uninformed access to education and limited availability of respite care services for PWDs. In this articles, first, the authors will discuss what does it means to be PWDs in Malaysia from social welfare and legislation context. The authors will analyst text from government reports and multiple works of literature regarding the facilities and initiatives that the government put in place to assist PWDs. Lastly, this articles will be concluded by recommending future directions for PWDs.

4. Disability, Legislation, and Social Welfare

4.1. Statistic Data regarding Person with Disabilities

Before the 2008 Act, there are no accurate statistic data on disability, although there are several statistics that exist based on a sample survey and voluntary registration. Based on the estimation of the World Health Organisation (WHO), the number of persons with disabilities in developing countries is between 5 to 10 per cent [30]. If the WHO estimate is taken into consideration, the number of persons with disabilities in Malaysia should be between 1.6 to 3.2 million, based on the total population of 32 million in 2018.A study conducted by the Institute for Public Health, Ministry of Health Malaysia in 2015 to supplement existing data and provide data for monitoring and evaluation of heath programmes implemented by the Ministry of Health founded that the prevalence of disability among adults in Malaysia is 11.8% based on sample survey of 19,959 adult aged 18 years and older that were found eligible^[7].

Category of registration of PWDs was changed in January 2010 which now include people with mental disabilities. Under the new registration category, there are seven categories of people that are known as PWDs. They are those with;

- 1. Hearing Disability (hereinafter "DE")
- 2. Visually Disabled (hereinafter "BL")
- 3. Speech Disability (hereinafter "SD")
- 4. Physical Disability (hereinafter "PH")
- 5. Learning Disabilities (hereinafter "LD")
- 6. Mental Disability (hereinafter "ME")
- 7. Multiple Disabilities (hereinafter "MD")

4.2. Legislation and Social Welfare

Over the years, there's a paradigm shift in Malaysia in dealing with the issues of PWDs. Before PWDs Act was enacted in 2008, Malaysia's approached in dealing with issues of PWDs was more on a charity based system without specific plan and policy targeted to increase their quality of life and well being.

The PWDs Act 2008 is the first comprehensive legislation on disability in Malaysia which reflects the



philosophy of the UN CRPD by taking disability as an issue of rights and equality. It is an Act that provides for the registration, protection, rehabilitation, development and well being of PWDs, the establishment of the National Council for PWDs, and for matters connected therewith. The Act is aimed to ensure that the rights, interests, and welfare of PWDs in the country are protected. Drafted after taking into consideration all provisions provided under the United Nations Convention on the Rights of PWDs. The responsibilities of implementing a national plan and policy regarding PWD fall under the jurisdiction of National Council for Persons with Disabilities (hereinafter "NCPWD") chaired by the Ministry of Women, Family and Community Development (hereinafter "MWFCD"). NCPWD recognize that a collective effort through multi-sectoral and multiagency collaboration with other relevant agencies was needed to achieve comprehensive and holistic result.

Among the Council's functions (Section 9, the PWDs Act 2008) are:

- 1. to monitor the implementation of the national policy and national plan of action relating to PWDs;
- 2. to make recommendations to the Government on all aspects of PWDs (eg. support, care, protection, rehabilitation, development and well-being of PWDs).

The policy and plan for the development of PWDs focus on four targets;

- 1. Eradication of discrimination;
- 2. Rights and Opportunities for participation in the society;
- 3. Equal opportunities based on the rights;
- 4. Awareness on the rights.

The policy adopts fifteen strategic area, namely ;

- Advocacy on rights;
- Accessibility
- Health and Medical Care
- Rehabilitation
- Education
- Employment
- Social Welfare and Security
- Environment
- Human Resource Development

- Social participation
- Research & development
- Housing
- Children with disability
- Women with disability

Below are the list of services for PWDs by both government and private agencies;

- Special aids
- Entrepreneur fund
- Disable workers allowance
- Disability allowance
- Allowance for CBR clients
- Allowance for personal assistants
- Vocational rehabilitation centre
- Residential institutions
- Community Based Rehabilitation (CBR)
- Sheltered workshop
- Counselling
- Inclusive school
- Allowance for disable students
- Income tax exemption (including parents of PWDs)
- Other tax exemptions (driving license, equipment)
- Special price for public transportation
- Priority in low income housing
- Reduction of medical fee (public hospital/clinics)
- Reduction of fees related to government services i.e passport
- Job placement/matching
- Income tax exemption (vehicles)
- Allowance for parents of children with disabilities
- Reduction of fees for utilities i.e internet, electricity,cable channel



In its Tenth Malaysia Plan (2011-2015) for the first time government introduced inclusive development as the national agenda. The Tenth Malaysia Plan encapsulates the spirit of Malaysia to create a fair and socially just society with national unity as its ultimate objective. Malaysia launched The Action Plan for Persons with Disabilities (2016-2022) to provide continuity to the existing plan to ensure that the programs keep up with the development and current needs of the group. In this phase, the Government is upscaling the initiatives towards improving the quality of life of persons with disabilities by;

- exploring the provision of new initiatives i.e. respite care and strengthening independent living programs.
- Enforcement through legislation on the rights of PWDs

We will look at each of the key sectors and what is the initiatives provided to enhance PWDs participation in society thus closing the social gap that existed before.

4.3. Health & Quality Life Care

Under section 35 of PWD Act 2008, the Government is committed to providing accessible and affordable health services to all including persons with disabilities. There are 27 strategies listed down in Health Care of Persons with Disabilities Plan of Action 2011-2020 in order for the government to;

- 1. provides equal opportunities for health care for PWDs;
- 2. empowers individuals, families, and communities for self care and development of support services for persons with disabilities.

One of the key programs that government established is "Early Detection and Intervention Program" where the Ministry of Health (MOH) carries outgrowth and developmental assessment for early detection of disabilities among children aged from 0-6 years. This initiative will help to reduce a huge individual and societal burden and eventually will help to improve the quality of life of the affected children and their family. Researched showed that early life conditions are important in shaping multiple life skills and there is positive evidence linking long term effects in investing in children early critical periods for shaping different skills[?]

4.4. Education

The legal framework for education insofar as children with disabilities are concerned is the Education Act

1996 (Education Act) and the Education (Special Education) Regulations 1997 (Special Education Regulations) but there is no national policy specifically for children with disabilities. The policies, strategies, and programs for children with disabilities are subsumed within:

- National policies and action plans for persons with disabilities;
- National policies and action plans for children,

As such, the policies for children with disabilities are developed from two distinct focal points: the child with disabilities as a "person with disabilities" and the child with disabilities as a "child".

The ratification made under section 28 of PWD Act 2008 specifically mentions right of children with disabilities in this sentences

Persons with disabilities shall not be excluded from the general education system on the basis of disabilities, and children with disabilities shall not be excluded from pre-school, primary, secondary and higher education, on equal basis with persons or children without disabilities, including vocational training and lifelong learning [3].

Current students with special needs can choose from 3 different schooling options:

- 1. **Special Education Schools** where all students have disabilities;
- 2. **Special Education Integration Program** where mainstream schools with specific classes dedicated to students with special needs;
- 3. **Inclusive Education Program** where mainstream schools that integrate one of five students with special needs into mainstream classes.

4.5. Employment

Under section 29 of PWDs Act 2008, the Government is committed to building an ecosystem which will encourage and increase the participation of persons with disabilities in employment. Among the initiatives are;

- 1. Policy on 1% Job Opportunity in the Public Sector for PWD which aimed to assist qualified persons with disabilities to be hired and hold suitable positions in the public sector;
- 2. Job Coach Services which provides assistance to both persons with disabilities and employer, helps persons with disabilities to get suitable jobs according to their eligibility, ability, skills and knowledge and to help them sustain their jobs at the workplace;



- 3. Job Matching and Placement System for Persons with Disabilities (SPOKU) which allows job matching of the right candidates with the right job;
- 4. Self-Employment & Economic Empowerment Program which aim to generate more reliable income and sustain their businesses by providing them with initiatives such as grant and Business Encouragement Assistance Scheme for Persons with Disabilities (SBGP-OKU), 1Azam Program, Purple DNA Project and sheltered workshops. Employment Incentives such as double tax deduction of remuneration paid to disabled workers by employers, a double tax deduction for expenses spent for the training of non-employed disabled persons by employers and allowance for PWD employee.

4.6. Public Transportation

Access to transportation for persons with disabilities is one of the crucial infrastructures to be developed in an inclusive society. Ministry of Transport, who leads the Transportation Committee under the National Council for Persons with Disabilities, continuously pursues its effort to promote accessible public transportation in Malaysia by focusing;

- 1. to standardize the design of buses to be used by all bus operators in Malaysia using guidelines on the universal design of buses for bus operators;
- 2. door-to-door transportation service for PWDs;
- improving and enhancing the accessibility of buses by upgrading and refurbishing of existing bus stops;
- 4. improving and enhancing the usability of rail services for PWDs.

Under Urban Public Transport initiatives, the government will be upgrading 24 Light Rail Transit stations, 10 commuter stations, and 4 interchanges and to equipped with universal facilities 26 new four train coaches and 38 sets of six-car trains (Electric Multiple Units).

4.7. Habilitation & Rehabilitation Centres

Under section 33 – 34 of PWDs Act 2008, there is provision for the government to build Community-Based Rehabilitation Centres (CBR) and Rehad & Residential care services. CBR is implemented through the combined efforts of persons and children with disabilities themselves, their families and communities, together with the appropriate health, education, vocational and social services. Among the services provided at the CBR centres:

- Early detection and intervention programs;
- Registration of PWDs;
- Rehabilitation;
- Resource and referral centre; and
- Advocacy

Rehad & Residential care services are separated into 2 types;

- 1. Care Centre for the Disabled (Taman Sinar Harapan - TSH) which provide care rehabilitation services for persons with learning disabilities;
- 2. Industrial Training Rehabilitation Centre (PLPP) which provides vocational/non-vocational training and rehabilitation to persons with physical disabilities (age between 14 40 years old).

The objective is to empower and equip the physically disabled persons with the necessary skills to their optimum capacity in order to prepare them for the workforce

5. Conclusion and Future Direction

Malaysia Tenth and Eleventh Plan were anchored under UN CRP and UNESCAP *The Incheon Strategy to "Make the Right Real" for PWD in Asia and the Pacific.* Two of its main goals is;

- 1. To have community and family-based, inclusive development promoted in order to ensure that all persons with disabilities, irrespective of socioeconomic status, religious affiliation, ethnicity, and location, are able, on an equal basis with others, to contribute to and benefit from development initiatives, particularly poverty reduction programs;
- 2. PWDs are included in mainstream community life and are supported with life choices equal to those of others, including the option to live independently;

Through this plan, the government, with private sector participation, aims to add seven new Independent Living Centers (ILC) across the nation, benefiting nearly 11,000 PWDs. The idea of ILC is to act as a one-stop centre for the disabled. They provide services such as personal assistants, peer counselling, living skills training, repairing essential equipment, empowerment and advocacy with aims to assist the disabled to live independently as a choice if they want. There are 24,193 severely disabled persons in Malaysia, according to statistics compiled by Social Welfare Department (JKM) in 2017[].

The government is also committed to achieving the public sector target of 16,000 employment for PWDs in



2020. There are nearly 4,000 PWDs currently serving in the public sector in 2015. Moreover, by expanding their access to education, skills, and entrepreneurship training, the government hope this will foster their well-being. By actively promoting skills development, governments can empower their citizens to adapt to the changing needs of industries and remain competitive. Leaps in digital technology have disrupted lives across the Asia-Pacific and Malaysian is getting its people ready for the digital economy by equipping them with the skills and knowledge to use emerging technologies actively, meaningfully and safely.

Based on the existing facilities and initiatives provided insofar by the government, there is still plenty of room for improvement, especially in the early intervention programs, in the context of social skills development and entrepreneurship programs for the PWDs.

5.1. Acknowledgements

Deepest gratitude to Malaysia Technology Development Corporation (MTDC) and Universiti Teknologi Malaysia (UTM) for supporting our ongoing research that will allow us to identify suitable technopreneur skills that PWDs need and the level of their knowledge that will give them the opportunity to participate actively in Industry 4.0 movement and taking advantages of an advancement in technology to change how they are interacting with the society.

References

- [1] 10 goals to make the right real for persons with disabilities in asia and the pacific, 2013-2022. https://www.unescap.org/sites/default/files/ Incheon%20%20Strategy%20pocket%20version.pdf. (Accessed on 10/07/2018).
- [2] Chapter 3.pdf. http://epu.gov.my/sites/default/ files/Chapter%203.pdf. (Accessed on 02/07/2019).
- [3] Mys86297.pdf. http://www.ilo.org/dyn/natlex/docs/ ELECTRONIC/86297/117930/F139356912/MYS86297.pdf. (Accessed on 10/20/2018).
- [4] Slide 1. http://www.mohr.gov.my/pdf/bil3_2017.pdf. (Accessed on 02/07/2019).
- [5] Unicef-children_with_disability_in_malaysia_2014_lowres.pdf?] https://www.unicef.org/malaysia/UNICEF-Children_with_Disability_in_Malaysia_2014_lowres.pd[?4] (Accessed on 10/07/2018).
- [6] P. Abberley. The concept of oppression and the development of a social theory of disability. *Disability, Handicap & Society*, 2(1):5–19, 1987.
- [7] N. A. Ahmad, N. M. Kasim, N. A. Mahmud, Y. M. Yusof, S. Othman, Y. Y. Chan, M. A. A. Razak, M. Yusof, M. Omar, F. A. A. Aziz, et al. Prevalence and determinants of disability among adults in malaysia: results from the national health and morbidity survey (nhms) 2015. *BMC public health*, 17(1):756, 2017.

- [8] M. . M. I. D. Authority. Malaysia top among upper middle income countries at 28th spot. http://www.mida.gov.my/home/3719/news/malaysiatop-among-upper-middle-income-countries-at-28th-spot/, April 2017. (Accessed on 10/14/2018).
- [9] T. Burchardt*. Capabilities and disability: the capabilities framework and the social model of disability. *Disability & society*, 19(7):735–751, 2004.
- [10] D. Cagáňová. Multiculturality and Industrial Enterprises. Hochsch. Anhalt (FH), 2011.
- [11] D. Caganova, M. Cambal, J. Sujanová, and P. Woolliscroft. The multiculturality aspects and human capital management within slovak industrial enterprises. In *Proceedings of the 4th European Conferences on Intellectual Capital*, pages 106–117, 2012.
- [12] W. B. Data. Malaysia | data. https:// data.worldbank.org/country/malaysia. (Accessed on 10/13/2018).
- [13] W. B. Data. Poverty & equity brief, country: Malaysia. http://databank.worldbank.org/data/download/ poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/ Global_POVEQ_MYS.pdf, 3 2018. (Accessed on 10/13/2018).
- [14] J. J. Heckman and S. Mosso. The economics of human development and social mobility. *Annu. Rev. Econ.*, 6(1): 689–733, 2014.
- [15] R. Heron and B. Murray. Assisting disabled persons in finding employment: A practical guide. 2003.
- [16] B. Hughes and K. Paterson. The social model of disability and the disappearing body: Towards a sociology of impairment. *Disability & society*, 12(3):325–340, 1997.
- [17] Y. Ikemoto. Income distribution in malaysia: 1957–80. *The Developing Economies*, 23(4):347–367, 1985.
- [18] M. R. Islam. Rights of the people with disabilities and social exclusion in malaysia. *International Journal of Social Science and Humanity*, 5(2):171, 2015.
- [19] JICA. open_jicareport.jica.go.jp/pdf/12251765.pdf. http://open_jicareport.jica.go.jp/pdf/ 12251765.pdf, 08 2015. (Accessed on 02/07/2019).
- [20] H. Khor. Turning disability into a national asset. *Penang Economic Monthly*, pages 16–20, 2010.
- [21] M. N. Lee, Y. Abdullah, and S. C. Mey. Employment of people with disabilities in malaysia: Drivers and inhibitors. *International Journal of Special Education*, 26 (1):112–124, 2011.
- [22] I. Metzler. Disability in medieval Europe: Thinking about physical impairment in the high middle ages, c. 1100-c. 1400. Routledge, 2006.
- [5] Unicef-children_with_disability_in_malaysia_2014_lowres.pdf
 [4] M. Oliver. The social model of disability: Thirty years on. Disability & society, 28(7):1024–1026, 2013.
 - [24] D. Simandan. Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*, 200:258–261, 2018.
 - [25] J. Swain, S. French, C. Barnes, and C. Thomas. *Disabling* barriers-enabling environments. Sage, 2013.
 - [26] T. L. Ta and K. S. Leng. Challenges faced by malaysians with disabilities in the world of employment. *Disability, CBR & Inclusive Development*, 24(1):6–21, 2013.
 - [27] T. L. Ta, L. L. Wah, and K. S. Leng. Employability of people with disabilities in the northern states of peninsular malaysia: Employers' perspective. *Disability*,



CBR & Inclusive Development, 22(2):79–94, 2011.

- [28] I. H. B. M. Tah. A need for remedial provision to protect persons with disabilities in malaysia. In *Proceeding of the Kuala Lumpur International Business, Economics and Law Conference at Kuala Lumpur, 2-3 December 2,* volume 3, 2013.
- [29] H. A. Wahab and Z. A. Ayub. Employment right of persons with disabilities in malaysia. In *Social*

Interactions and Networking in Cyber Society, pages 217–232. Springer, 2017.

[30] WHO. Disability and health. https://www.who.int/en/ news-room/fact-sheets/detail/disability-andhealth, Jan 2018. (Accessed on 02/02/2019).

