

5-2019

Micro and Macro Aspects of Disability: An Analysis of Differential 'Disabling' Experiences Associated with Information and Communication Technology and Political Economic Dimensions of Persons with Disabilities in Myanmar

Dilshan Lakshitha Fernando
Clemson University, dilshanfernando@live.com

Follow this and additional works at: https://tigerprints.clemson.edu/all_theses

Recommended Citation

Fernando, Dilshan Lakshitha, "Micro and Macro Aspects of Disability: An Analysis of Differential 'Disabling' Experiences Associated with Information and Communication Technology and Political Economic Dimensions of Persons with Disabilities in Myanmar" (2019). *All Theses*. 3111.

https://tigerprints.clemson.edu/all_theses/3111

This Thesis is brought to you for free and open access by the Theses at TigerPrints. It has been accepted for inclusion in All Theses by an authorized administrator of TigerPrints. For more information, please contact kokeefe@clemson.edu.

MICRO AND MACRO ASPECTS OF DISABILITY:
AN ANALYSIS OF DIFFERENTIAL 'DISABLING' EXPERIENCES
ASSOCIATED WITH INFORMATION AND COMMUNICATION TECHNOLOGY
AND POLITICAL ECONOMIC DIMENSIONS
OF PERSONS WITH DISABILITIES IN MYANMAR

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Applied Sociology

by
Dilshan L. Fernando
May 2019

Accepted by:
Dr. Catherine Mobley, Committee Chair
Dr. Mike Coggeshall
Dr. Maria Bose

ABSTRACT

According to the World Report on Disability compiled by the World Health Organization in 2011, 15 percent of world's population lives with at least one form of disability and 80 percent of these persons with Disabilities (PWD) live in developing countries. Following the Social Model, Disability and Underdevelopment appear to form a regressive alliance that continues to bar a large population of human beings from a decent and independent life. However, as individual-level innovations, emerging ICT-based technological solutions promise to bridge the gap that prevents the application of developed world Disability policies to an underdeveloped context.

This study contextualized the role and viability of ICT-based technological solutions in determining whether there are macro aspects to Disability defined by overarching political economic dimensions. The study also determined that if macro aspects to Disability exist, whether ICT-based technological solutions should then be recognized as one way to address micro aspects of Disability. In this study, the existence of macro dimensions of Disability was investigated by (1) hypothesizing the existence of differential experiences pertaining to Urban and Rural Disability, and (2) investigating the existence of a fundamental mismatch between desired and available jobs for the PWD.

Methods: To achieve the aforementioned research goals, this study used qualitative data collected from Myanmar, selected for its capacity as a developing country in East Asia. The data included 30 interview transcripts across all formats (Focus Groups, In-depth

Interviews and Key Informant Interviews). Data were analyzed using a deductive coding method with pre- and post-determined themes.

Results: There was sufficient evidence to support both hypotheses. The supportive evidence helped to articulate several key theoretical and policy implications. Recognizing that Disability is “two-fold” with both micro and macro theoretical dimensions, the study recommends facilitating “internal migration” of PWD to urban areas and investing in tertiary level skills-development programs as possible policy responses.

ACKNOWLEDGMENTS

I would first like to thank my thesis advisor Dr. Catherine Mobley of the Department of Sociology, Anthropology and Criminal Justice at Clemson University. Dr. Mobley was always available whenever I ran into a trouble spot or had a question about my research or writing. She consistently allowed this thesis to be my own work, but steered me in the right the direction whenever she thought I needed it.

I would also like to acknowledge Dr. Mike Coggeshall of the Department of Sociology, Anthropology and Criminal Justice and Dr. Maria Bose of the Department of English at Clemson University as the second and third readers of this thesis, and I am gratefully indebted to them for their very valuable comments on this thesis.

I would also like to thank the team at LIRNEasia Sri Lanka who were involved in the initial study which got extended to this research project: Prof. Rohan Samarajiva, LIRNEasia's visionary chair, Helani Galpaya, CEO and my adviser during the initial project and Gayani Hurulle, Research Manager and my team leader for the initial project. Without their passionate participation and input, the Disability field study could not have been successfully conducted.

Finally, I must express my very profound gratitude to my beloved wife Khadija for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without her. Thank you.

Dilshan L. Fernando

TABLE OF CONTENTS

	Page
Abstract	ii
Acknowledgments.....	iv
List of Tables	ix
List of Figures.....	ix
1. Introduction.....	1
1.1 Overview.....	1
1.2 Problem Statement	5
1.3 Research Goals.....	6
2. Literature Review.....	9
2.1 Disability.....	9
2.1.1 Defining Disability.....	9
2.1.2 The Emergence of Critical Disability Studies	10
2.1.3 The UN Convention: CRPD	13
2.1.4 Global Disability Statistics from the Social Model Perspective	13
2.2 Information and Communication Technology (ICT).....	14
2.2.1 Defining ICT	14
2.2.2 Emerging ICT-based Solutions to Disability.....	16

TABLE OF CONTENTS (CONTINUED)

	Page
2.2.3 Limitations of ICT-Based Solutions	20
2.3 Disability and Underdevelopment	22
2.3.1 Disability and Underdevelopment: The Case of Myanmar	22
2.3.2 Myanmar’s Disability and Economic Statistics	28
2.4 Micro and Macro Aspects of Disability	29
2.4.1 Defining Micro and Macro Aspects of Disability.....	29
2.4.2 The “Experience” of Disability.....	30
2.4.3 Differential Experience of Disability in Urban and Rural Areas.....	31
2.4.4 Experience of Disability in Terms of Mismatch between Desired and Available Jobs	35
2.5 Conclusion	39
3. Methodology	40
3.1 Context.....	40
3.2 Research Design.....	42
3.3 Focus Group Discussions (FGDs)	45
3.4 In-Depth Interviews (IDIs)	45
3.5 Key Informant Interviews (KIIs)	46
3.6 Key Methodological Decisions.....	46

TABLE OF CONTENTS (CONTINUED)

	Page
3.6.1 Research Question 1: Differential Disabling Experiences between Urban and Rural Dwellers	47
3.6.2 Research Question 2: Disabling Experiences Associated with Employment Mismatches	48
3.6.3 Coding Plan.....	49
4. Results.....	52
4.1 Differential Disabling Experiences between Urban and Rural Dwellers	52
4.1.1 Living Independently.....	52
4.1.2 General Perceptions about the Day-to-Day Challenges that PWD Face	55
4.1.3 Access to Public Space, Public Infrastructure and Public Transport.....	58
4.2 Disabling Experiences Associated with Employment Mismatches.....	64
4.2.1 Selection of a Career	65
4.2.2 Employment Aspirations and Future Ambitions	68
4.2.3 Alternative Careers	72
4.2.4 Barriers to Pursue the Aspirations	74
5. Discussion of Results.....	78
5.1 Differential Disabling Experiences between Urban and Rural Dwellers	78
5.2 Disabling Experiences Associated with Employment Mismatch.....	83

TABLE OF CONTENTS (CONTINUED)

	Page
5.3 Theoretical Implications: Micro and Macro Aspects of Disability	86
5.4 Policy Implications	88
5.4.1 Urban vs Rural Differences in Disabling Experiences	88
5.4.2 Employment Mismatches.....	90
6. Limitations of the study	91
7. Conclusion	93
Appendices.....	94
Appendix 1: Characteristics of FGD Participants.....	95
Appendix 2: Discussion Guide Used for the Field Study.....	96
Appendix 3: Ethical Guidelines Followed in this Study.....	100
Appendix 4: Excerpts from Request for Proposal (RFP) and Contract between LIRNEasia and Kantar Public on Ethical Guidelines	101
1. Clause 3.3.3. of RFP titled “Data collection, entry and processing”	101
2. Clause 6 titled “Ethical Standards” of the Contract between LIRNEasia and Kantar Public	102
References.....	105

LIST OF TABLES

Table	Page
Table 1: Working Definitions for This Study.....	41
Table 2: ICT related Assistive Technologies (AT).....	44
Table 3: IDIs' Participant Details	46
Table 4: Refusals to Participate	92

LIST OF FIGURES

Figure	Page
Figure 1: Urban/rural divide of the Disabled population in Myanmar	28
Figure 2 : Disability by State/Division	43

1. INTRODUCTION

1.1 Overview

According to the World Report on Disability compiled by the World Health Organization (WHO) in 2011, 15 percent of the world's population (nearly 1 billion people and 1 out of 7 of the world population) lives with at least one form of disability. Approximately 110 to 190 million people face very significant disabilities and 80 percent of these persons with Disabilities (PWD) live in developing countries. These data testify to the importance of addressing the problem of Disability¹ due to its potentially negative impact on the quality of life of the citizens who are experiencing any form of Disability.

However, it is also vital to consider the paradigmatically different ways in which Disability is defined as a problem in the contemporary context. As Harpur (2012) states, the United Nations Convention on the Rights of Persons with Disabilities (CRPD) that came in to force in 2006, is one of the rare UN conventions that received overwhelming support from a vast number of countries (currently 177 ratifications). This Convention enshrined a paradigmatic shift in the definition of Disability, giving it a "social turn" in place of the "medical status quo." That is, this policy document defined Disability as a social phenomenon in that it is a form of discrimination that is caused by socio-economic factors that are built upon the physical impairment of the person (Harpur, 2012). Thus, the definition highlights the social, rather than merely physical, dimensions of disability.

Disability refers to the existence of socio-economic barriers to an enabling life for a

¹ "Disability" is capitalized throughout this study, firstly to stand in solidarity with the PWD community in the world as equal comrades who fight for their rights and secondly to assert their identity as a form of social stratification that must be given due recognition in research similar to race, ethnicity or gender.

person with a physical impairment. When conceptualizing and reporting on Disability, any formal quantitative data should be supplemented by a definitive social association and the discriminatory nature of the contemporary modern societies that marginalize the PWD. A major premise of the current research is that this second social definition better highlights the gravity of the implications of Disability. That is, rather than communicating that Disability is merely a health issue, which it is to a certain degree, the statistics highlight the “non-enabling” social infrastructures that “disable” individuals with various impairments.

The gravity of the problem should also be supplemented by the concerted policy efforts taken by the signatory governments of the CRPD that have attempted to improve the lives of the PWD around the world. For example, Zhuang (2016) highlights how the CRPD provisions have effectively guided the Singaporean government to streamline its social policy to address the barriers that the PWD in Singapore face in their everyday lives. Various transport concessions, subsidies, welfare coupons, and other policy initiatives have been used to enable the lives of the PWD (Zhuang, 2016). Enabling (in contrast to Disabling) policies such as these have increased in number over the past decade in many parts of the world (Harpur, 2012).

However, given that 80 percent of the world’s Disability population lives in developing countries, it is essential to better understand the social dimensions of Disability in these settings. Given that the prevalence of any form of Disability is positively associated with the presence of discriminatory (and Disabling) socio-economic barriers – as after all, by definition enshrined in CRPD, then the gravest of such barriers

overwhelmingly exist in the developing countries. Understandably then, it appears at first sight that Disability is predominantly a “third-world problem.”

The primary goal of the current study is to explore more fully the problem of Disability as manifested in the developing world. A major premise of this project is that given the congruence of statistics with the social definition of Disability, there appears to be a fundamental division between the developed world and the developing world in how Disability is addressed as a social problem. This is evidenced by the rise in the developed world of welfare-driven enabling policies for PWD, from Singapore to the UK (Zhuang, 2016; Meager & Hill, 2006). This trend raises deep doubts, which are empirically validated, as to how the same policies can be implemented in the developing world. Indeed, the inability of, or sluggish pace at which, developing countries attempt to improve the welfare of their peoples consequently defines them as still “developing nations.” Therefore, it appears that the structural inabilities of developing economies to cater to welfare-demands adversely impact the problem of Disability as well. Thus, Disability itself is caught in between many overarching political economic determinants, which are beyond the reach of Disabled individuals themselves.

This intersection of Disability and underdevelopment as a research focus provides a foundation to use Myanmar as a case study that can potentially reveal the political-economic and social determinants of Disability described above. The 2014 Myanmar Census (Ministry of Immigration and Population, 2014) indicates that 2,311,250 persons in Myanmar, or roughly 4.6% of its population, lived with some form of Disability; more than a quarter of the Disabled had multiple disabilities. Myanmar’s status as a developing

country whose economy was closed until recently due to internal political turmoil, coupled with the number of PWD living there, justifies Myanmar's selection for this study.

The current study is based on a much larger qualitative research project carried out in Myanmar between April and August of 2018. The project was designed and carried out by LIRNEasia, a regional think tank based in Sri Lanka whose mission is to “catalyze policy change through research to improve people's lives in the emerging Asia Pacific by facilitating their use of hard and soft infrastructures through the use of knowledge, information and technology” (LIRNEasia, 2018). The purpose of this research was to investigate the day-to-day problems that the PWD face in Myanmar and to find possible Information and Communication Technology (ICT), related solutions to the problems identified therein. Hence, the present study is based on the empirical data (qualitative interviews) that were collected for this project in the summer of 2018.

The published findings of the LIRNEasia's research (Hurulle, Fernando, & Galpaya, 2018), coupled with other literature on the topic of technology and Disability (especially that of ICT and Disability), inform the second most important research quest of this study. The study results indicated that many of the Disabling barriers faced by the poorest of the PWD living in a largely underdeveloped country like Myanmar can be addressed through the use of emerging ICT-related solutions – from mobile phone applications to computer-aided tools. For example, Hurulle et al.'s study participants reported that the GPS navigation mobile apps were a very effective “assistive tool” in place of a traditional white cane in guiding a visually impaired person on the busy streets

of Myanmar's capital, Yangon (Hurulle, Fernando, & Galpaya, 2018). Participants also indicated that currency-reading mobile apps were an effective substitute for a family member who normally would need to accompany a visually impaired person to the farmers' market. (Hurulle, Fernando, & Galpaya, 2018). In summary, the LIRNEasia's study revealed that Disability was a social problem that can potentially be addressed and solved, even in a poorer underdeveloped setting like Myanmar. In this sense, it appeared that ICT's and the world of technology emerged as a solution that could begin to address Disability, extending ICT's liberating potentials to even the poorest and underdeveloped countries.

The current qualitative study is therefore devoted to the task of evaluating the nature of Disability as a social problem in an underdeveloped context, impacted significantly by the emerging ICT-driven solutions. Moreover, the research aims to distinguish between what the technology and ICT's can solve (the micro aspects) and what they cannot address, and how that is then shaped by persistent political economic determinants (the macro aspects) concerning Disability. The qualitative nature of the study provides nuanced insights into these distinctions and influences.

1.2 Problem Statement

Based on the above discussion, the definition of Disability as a multi-dimensional "social problem", rather than merely a "physical condition", allows for insights into its political economic and social-cultural determinants as evidenced by the non-enabling barriers that restrain PWD from living a fulfilling life. Accordingly, the sheer number of PWD living in developing countries indicate that there are equally more non-enabling

barriers for PWD in those countries. This qualitative study sheds light on the unique characteristics of PWD in a developing country, assuming that the policy initiatives in developed countries cannot be directly applied to PWD in developing countries. This study also more fully examines the promise of ICT-based solutions to challenges faced by PWD.

ICT-based solutions that purport to solve the social aspects of Disability, even in developing countries, pose immense promise as well as intriguing doubts that warrant closer analysis of their actual viability. Hence this study purports to;

- i. Contextualize the role and viability of ICT-based technological solutions to address Disability in an underdeveloped context;
- ii. Determine whether there are macro aspects to Disability defined by overarching political economic dimensions;
- iii. Determine if there exist macro aspects to Disability, whether ICT-based technological solutions should be defined as addressing micro aspects of Disability.

1.3 Research Goals

This project has three main research goals. First, the literature review below treats the contextualization of the enabling policies of the economically developed countries by describing best practices from several countries pertaining to several Disabling barriers and how their political economic viability is greatly determined by the very wealth of those countries. Thus, the discussion will problematize the direct applicability of the same policies in an underdeveloped country like Myanmar. The

discussion will also recognize the applicability of some of those best practices which are mainly backed by the World Bank and other larger donor agencies.

The second and the third research goals which proceed from the inferences of the first, are intertwined. A proper evaluation of the viability of ICT-based solutions to Disability, in an underdeveloped context, must first consider the limitations of micro-level solutions in context of the existence of overriding macro-level issues. Hence, what ICT-based solutions (such as mobile apps, etc.) promise to solve would have to be designated as affecting only a limited number of Disabling barriers, which are experienced only at the individual level. Macro-level determinants are in this sense left un-resolved, even by the promising ICT-based solutions. Hence this study addresses the following research questions:

- i. Is the experience of Disability significantly different between the PWD living in urban and rural areas of Myanmar, in reference to their experience of access to public infrastructure, public transport and other public domains?
- ii. Is the experience of Disability significantly affected by the fundamental mismatch between expected and available employment opportunities by the PWD in Myanmar?

The first research question is informed by the Social Model of Disability that posits that essentially higher quality social infrastructure (considered here to be the defining distinction between urban and rural life, especially in an underdeveloped setting) in urban areas should result in a better quality of life, with lesser experience of Disability; conversely lower quality social infrastructure should result in a lower quality of life as it

pertains to Disability experiences. The relationship between the experience of Disability and urban living is thus hypothesized to be inverse (i.e., the better the urban living experience, the weaker the experience of Disability). The second research question is also informed by the Social Model of Disability such that the PWD's experience of frustration (synonymous with a form of a Disabling experience) resulting from an inability to find their desired jobs, assuming that the skill levels match, should result in a less fulfilling life for PWD. That is, the higher the frustration with not being able to find a match between skill level and employment opportunities, the stronger the social experience of Disability.

Both these problems/barriers (urban versus rural living and employment mismatch) are not individual-level (or micro-level) issues. Rather, they signify overarching political economic deadlocks whose resolutions are closely linked with the development priorities of the country. For example, urban development as seen as a determinant of the experience of Disability, is also a political economic constraint (limited by various economic determinants such as GDP, budget deficits, public debts etc., which are beyond the reach of this study) which the country faces at large. In this sense, Disability is closely linked to underdevelopment, as described above.

2. LITERATURE REVIEW

2.1 Disability

2.1.1 Defining Disability

Defining Disability is difficult due its coincidence of medical and social connotations. This point is a recurring theme in the Disability Studies literature. As Mitra et al. (2011) assert pertinently, “Disability is complex, dynamic, multidimensional and contested” (Mitra, Posarac, & Vick, 2011; p.3;). However, as discussed in the introduction, it is crucial to emphasize the paradigmatic shift in the way in which the debate over Disability as a concept as well as a “human condition” (Mitra, Posarac, & Vick, 2011) has shifted in the last few decades. As Harpur (2012) notes, identifying the “social constructed-ness” of Disability in the UN CRPD itself, in contrast to the designation of it as just another medical condition that requires proper medical care, foregrounds the direction in which policy efforts to address Disability should take place. Therefore, the “social turn” in defining Disability provides the context for investigating Disability as a social problem.

Goodley’s (2011) account of the “Social Model” in Critical Disability Studies literature helps to clarify this distinction. According to Goodley, following many of the field’s predecessors, Disability is defined as a social condition; more precisely an “effect” of negative social circumstances (i.e., infrastructures, attitudes, policies, etc.) that consequently constructs the condition of “Disabled-ness.” The clear distinction to be made with regard to this socially constructed “Disabled-ness” is the medical notion of “impairment” (e.g., visual, hearing, physical, intellectual, and developmental, etc.). For

this version of medically-centered Disability, physical or mental impairment constitutes the entirety of Disability. Therefore, “Disability” in this respect merely warrants suitable medical aid to “treat” the PWD, while crucially ignoring the entire dimensions of social accessibility, inclusion, and enabling policies. To move beyond the clear limitations of the social dimension, Disability scholars have strived to articulate the social-embeddedness of Disability itself. In view of this “Social Model”, impairment is separated from the Disability itself, although the latter cannot prevail without the former. However, this distinction helps to comprehend in a more consummate sense the precarious social problems associated with Disability, which was foreclosed before by confining it to a medical anomaly.

2.1.2 The Emergence of Critical Disability Studies

As described above, the distinction between Disability as a “human condition” and its physical impairment component instigated the emergence of a rich scholarship of what is now called “Critical Disability Studies” (CDS). CDS scholars ventured to use the “Social Model” lens to explore an entire array of problems and barriers associated with Disability, which were not researched before. As Oliver (2013) points out, this new scholarship informed a large number of social workers who worked with PWD, especially in the UK. He also emphasizes the need to expand the boundaries of the Social Model to accommodate the changing dynamics of contemporary social life that affect the PWD. Building on this thesis (i.e., the need to expand the scope of the Social Model), other commentators such as Levitt (2013) have pointed out that the impact of the Social Model will significantly improve if researchers take into account the wide differences

that exist within and between different country settings. For example, Levitt shows the importance of considering determinants, such as a country's poverty, level when applying the Social Model analysis, so that the results of such research can render the comprehension of Disability in its broader context.

There have been several other critiques of the Social Model itself, mostly conducted on the desire to expand the impact of the model to more appropriately account for the emerging dynamics of modern society. For example, Taub et al., (2009) highlight the need to recognize the interaction between the impairment (bodily states) and disability (external forces) in defining Disability itself. In some ways, one could claim that the Social Model itself does not preclude this interaction to claim that Disability exists outside the impairment. However, it is vital for contemporary researchers to recognize that ultimately a person "becomes" Disabled, or rather the experience of non-enabling social infrastructures occur, based on a physical impairment. Hence, the idea of "interaction" seems plausible in its very definition.

Taub et al. (2009) also highlight the importance of the gender dynamics of Disability. They claim that "Disabled women's experiences of impairment (e.g. pain, illness, and fatigue) must be acknowledged and included when addressing the Disabling effects of social and environmental barriers" (Taub, McLorg, & Bartnick, 2009, p. 206). In this sense, the Social Model must account for the role of gender in Disability. Several other researchers have pointed out an often overlooked "western-centric" dimension in the Social Model. For example, Grech (2009) claims that the Social Model is grounded on the concerns of western, white, urban, educated Disabled academics in industrialized

settings. He also aptly criticizes the Social Model for possessing the risk to be contextually and culturally inappropriate due to its “universalist discourse” on Disability. Furthermore, Hughes (2009) has highlighted the “somatophobic” (fear of the body) aspects that emerge in the CDS scholarship when using the Social Model in a very narrow way.

Overall, two theses regarding the Social Model in understanding Disability are especially relevant to the current study. Firstly, the Social Model accomplished a radical break with the previous medical-centric identification of Disability which championed the Disability activist movements around the world (Goodley, 2011). Secondly, the model itself is not without criticism and shortcomings which are pertinently pointed out by many researchers (Levitt, 2017; Taub, McLorg, & Bartnick, 2009; Grech, 2009; Hughes, 2009). Therefore, it must be emphasized that the Social Model approach is the inevitable comprehensive definition available to understand Disability currently, and should not be merely ignored due to these limitations. But rather, the model should be appropriated adequately to give meaning to Disability in the local contexts concerned. In this sense, the Social Model is the primary reference to defining Disability for the purpose of this research. Further, the Social Model approach will be used in a manner in which the local Myanmar context will be foregrounded. Therefore, Myanmar socio-cultural context foregrounds the application of the Social Model. Thus, this research contributes to the literature by applying the social disability model to the context of a developing country.

2.1.3 The UN Convention: CRPD

As discussed above, the justification for using a Social Model to frame Disability is further strengthened by its very enshrinement in the UN Convention of the Rights of the Persons with Disabilities (CRPD). As Harpur (2012) shows, the previous medical model tried to “fix” PWD without sufficiently admitting that PWD can lead fulfilling lives if the social circumstances provide for it. According to Celik (2017), the introduction of the CRPD shifted the paradigms of the Disability debate by bringing a new dimension to the perception of “human” in the legal arena. She further states that the liberal notions attached to this perception of “human” such as “dignity” and “traditional autonomy” were forced to be redefined, comprising the implicit dimensions of “vulnerability” and “relational autonomy” at the very heart of what is known as “human” (Celik, 2017).

2.1.4 Global Disability Statistics from the Social Model Perspective

Fifteen percent of the world’s population (nearly 1 billion people or 1 out of 7 people in the world) lives with at least one form of disability. The Social Model of Disability contends that Disability is innate to all human beings, such that every person will one day experience some sort of Disability, whether assumed at birth or as a result of aging, accident, ailment, or variety of other reasons. In this sense, every person on earth possesses just “temporarily abled bodies” (Goodley, 2011). Moreover, Harpur (2012) states that 20% of people living in developed countries experience some form of Disability. Harpur (2012) further states that the denial of right to work (unemployment)

for the PWD reaches four or five times more than the non-Disabled population. This figure is claimed to reach 80% (the denial of right to work) in developing States.

The apparent dichotomy between the developed and the developing world in the definition of Disability is clear. The effects of the problem are amplified due to developing nations' relative incapability to cope with Disability through the provision of innovative and structural policies. With a closer resonance to this deadlock, Zhuang (2016) finds that Disability policy should be seen as an effect of the "Welfare State" in the case of Singapore. As he further states "in Singapore, disability policies can be said to de-commodify Disabled people vis-à-vis the labor market. Policies such as transport concessions and subsidies to utilize educational and day care services reduce Disabled people's need to earn a wage" (Zhuang, 2016, p. 628).

Therefore, the inability of Welfare State policies in poorer developing countries generates the varying levels of Disabling experiences for the PWD living in those countries. Further, it is more productive to interpreting the global disability statistics, especially when considering the dichotomy of developed and developing countries, by foregrounding the Social Model as a better interpretive mechanism. Hence, the often neglected political economic determinants can be better illuminated as a result of this association.

2.2 Information and Communication Technology (ICT)

2.2.1 Defining ICT

Michailakis (2001) notes the difficulty in precisely defining Information and Communication Technology (ICT) because such technologies change so rapidly in a

manner in which the very definitions ought to change as well, due to the drastic changes that occur in the technology itself. However, Michailakis' definition of ICT in a Disability context seems to be a more plausible approach given its emphasis on the "Assistive Technology (AT)" side of ICT. This is a crucial point as the use of ICT by the PWD is not revolutionary only due to its accessibility, but also due to its treatment and usage as an AT (Hurulle, Fernando, & Galpaya, 2018). As described below, this is why the emerging ICT-based solutions to social barriers that cause Disabling experiences are path-breaking. For Michailakis;

"The term 'information and communication technology' (ICT) signifies the handling of information with the aid of technical instruments. Handling of information includes computerization and telematics....Telematics signifies the transmission of information, be it speech, text, data or pictures." (Michailakis, 2001, p. 480).

Michailakis' definition is pivotal for this study for several reasons. First, he makes it clear that ICT is nothing but the effective and efficient utilization of information using computerization and telematics. Thus, the revolution created by the ICT-based solutions in the lives of PWD is nothing but the handling of "information" in a creative manner by converting it to an assistive technology. Therefore, this means that the deprivation of information or inaccessibility to it is one of the fundamental Disabling experiences that the PWD face. The enabling process in this sense takes place by creatively handling the information that PWD are deprived of due to vision, hearing, physical or intellectual related impairments; modern computer technology is used to provide that information.

Thus, Michailakis (2001) emphasizes the essential role of telematics, which necessitates an efficient transmission process.

However, Michailakis' definition of ICT is limited; thus there is a need for a crucial addition: his definition only encapsulates the computer-dominated ICT and not the contemporary version of mobile phone-dominated ICT. Lazar et al. (2017) point out that the mobile phone is the most important ICT device in the 21st century due to the many advantages resulting from its easy portability and its affordability. Hurulle et al. (2018) note that the relative lower prices of mobile phones and their associated services (such as internet, GPS, etc.), have made them a very popular ICT device, even among the poorest of populations. According to Myanmar's government sources, mobile phone penetration rate is 54.6%, a high proportion for an underdeveloped country (Ministry of Communication and Information Technology, 2015).

This relative popularity of mobile phones among the poorest of the population makes it the foremost assistive device for the PWD in Myanmar (Hurulle, Fernando, & Galpaya, 2018). Therefore, Michailakis' definition of ICT should be extended to incorporate mobile phones as an effective information transmitter. This definition of ICT that includes and greatly emphasizes mobile phones serves as the reference point for this study.

2.2.2 Emerging ICT-based Solutions to Disability

Naslund and Gardelli et al. (2013) conceive of the relationship between ICT and Disability as not something that is given, but as a consequence of encounters and relationships between humans and non-humans. They indicate that it is important to

detect the everyday practices in PWDs' lives that enact such relationships (Naslund & Gardelli, 2013). Rather than assert that there is a pre-existing relationship between ICT and Disability, Naslund and Gardelli (2013) suggest it is necessary to discern if such a mediation between the two in a productive manner is possible.

Darcy et al. (2016) aptly highlight the establishment by Article 9 of the UN CRPD of the “right to the accessibility of facilities and services including assistive technology and ICT.” They further state that the CRPD provisions stipulate the “cost-effective” accessibility of such services for the PWD. Resonating this “right to digital accessibility”, various developers, regulators and providers have grasped the market opportunity to provide accessible services to PWD (Darcy, Maxwell, & Green, 2016). Features such as instant messaging, GPS-enabled navigation with speech directions and landmark identification, and apps that scan currency and read barcodes are just a few examples of the assistive potential of ICT-based technology (Darcy, Maxwell, & Green, 2016). Due to this expanding market potential, developers are reducing the accessibility issues for PWD. The relative lower cost of mobile phones around the world, and hence for its penetrable market for the developers and companies, has radically transformed the mobile phone into a very reliable assistive device (Lazar & Stein, 2017; Hurulle, Fernando, & Galpaya, 2018).

Moreover, mobile phone technology is widely used by PWD to enhance their independence and active citizenship (Darcy, Maxwell, & Green, 2016). PWD increasingly use mobile phones for entertainment, creative outlets and facilitating communication (social networking). Hence, the real impact of the ICT's in relation to

Disability is not only confined to ensuring more accessibility to them by accommodating the PWD; equally important is transforming the most common ICT devices (predominantly, but not limited to, mobile phones) into assistive technologies (or devices) that can influence and change the other non-ICT-based day-to-day activities of the PWD.

This transformation of the ICT's into assistive technologies (AT's) significantly changes the dynamics of the concept of "Inclusive Development." The problem now persists in identifying the domains of Disability that the ICT can address and effectively "enable" such Disabling experiences. Hurulle et al. (2018) elaborate in detail many assistive uses of mobile phones for PWD in Myanmar based on an extensive field study². Such uses span from transportation (e.g., GPS services, finding buses and bus stops, detecting road signs, finding cabs, etc.) to communication (e.g., currency-reading mobile apps, retail apps, online shopping apps, sign language apps, volunteer requisition apps, etc.), from education (e.g., online classes that are accessible, accessible study portals, Braille books on mobile phones, etc.) to employment (e.g., accessible websites that connect sellers and buyers, accessible freelance employment websites, mobile apps that translate sign language to customers who are physical present, etc.) (Hurulle, Fernando, & Galpaya, 2018). All these "assistive uses" are the surplus uses of a mobile phone, beyond its usual communicative uses. These uses transform the mobile phone to an effective AT device. As Hurulle et al. (2018) further claim, mobile phones thus

² I participated as a lead researcher in this study that took place in Myanmar in the summer of 2018.

increasingly substitute themselves in place of a family member, a friend or a stranger on the road that the PWD previously had to rely upon to accomplish their daily chores.

Disability scholars, such as Anders (2013), describe the negative consequences of the penetration of mobile phones to the daily lives of PWD with more enhanced pessimism. These scholars claim that this form of alienating inclusion by using mobile phones is nevertheless a form of exclusion as mobile phone assistance “de-humanizes” the human dimension of our civilization. Contrastingly, Hurulle et al. (2018) demonstrated in their study based in Myanmar that, as mobile phones are less expensive and therefore increasingly penetrating into the masses, including to poorer members of society (Lazar & Stein, 2017), they have become very formidable tools that can easily carry and execute “assistive tasks.” Essentially, what mobile phones have achieved at an individual level with its assistive function would have required enormous public funds if implemented at the national level. Thus, the affordability of mobile phones makes them increasingly popular even among the poorest members of society. Consequently, they are able to effectively function as AT’s, thereby making poor PWD able to live more independently than they could without mobile phones. This is evident by the ever-growing reliance upon and usage of mobile phones by the PWD in developing countries.

In this sense, mobile phones have become a tool that bridges the gap, described above between the developed world policies and the developing world constraints concerning Disability. However it might be possible to show that mobile phone-based solutions pertain to only one portion of Disabling barriers if it is possible to provide evidence to show that there are other Disabling barriers that cannot be solved by them. In

other words, the existence of macro-level Disabling barriers in the developing countries can only lead us to infer that the ICT-based solutions are confined to micro-level Disabling barriers. As is the main point of this study, this limited nature of technology-based solutions should hopefully help policy makers recognize that a large portion of Disability solutions must be addressed outside the technological realm, especially in the case of a developing country constrained by its political economic situation, whose resolution warrants different political commitments.

2.2.3 Limitations of ICT-Based Solutions

In providing an overview of the general limitations of the ICT's in connection to Disability, it must be noted from the outset that many researchers have confined their findings to the domain of what is called "digital exclusion" or in broader terms "digital divide." In this way, these scholars have neglected to analyze in a deeper sense the limitations of the ICT-based solutions for addressing Disabling experiences.

Macdonald and Clayton (2013) defined "digital exclusion" as "a lack of access to and use of information and communications technology (ICT) resources" (p. 705). They further claim that the idea that PWD are being socially included due to technological advances seems to be a misconception based on their empirical findings from the UK. Their research was focused on five domains of social exclusion (education, employment, social networking, independent living and healthcare) where they found no statistical evidence to suggest that digital technologies had improved any of these domains for PWD (Macdonald & Clayton, 2013). However, they insist that their research does not prove that digital technologies cannot improve the lives of PWD, but rather that access to

ICT must be improved for all members of society, rather than to a few who can afford them. Hence, it is clear that what MacDonald and Clayton (2013) describe as a limitation of the ICT's is in fact a matter of limited accessibility.

Furthermore, Watling (2011) shows empirical evidence from the UK to testify to the fact that many PWD do not own broadband internet services at their dwellings. Given that such a high proportion experience this limitation (32% of the persons with hearing impairments, 36% of the persons with physical impairments, 46% of the persons with vision impairments), Watling concludes that the “computerization of welfare” should address the practical realities that PWD face (Watling, 2011). In contrast to Watling's findings, based on the findings of Hurulle et al. (2018) and as discussed previously, it becomes clear that although home-based broadband services may be rare among the PWD, it appears that an overwhelmingly large population of the PWD possess mobile phones with internet.

Simpson (2009) observes that ICT has the potential both to enhance access for the PWD and to contribute to creating more division and new forms of exclusion. Simpson thus highlights the importance of addressing the accessibility and usability of technology as it continues to develop and spread (Simpson, 2009). Furthermore, the cost of AT's, lack of accessibility and lack of better policies are also the only limitations that the 2013 UNESCO report on “ICT for Disability-Inclusive Development” (UNESCO, 2013) observe.

With all these accounts of the limitations of the ICT's, what is noteworthy is their neglect of ICT limitations beyond the obvious accessibility issues. Many researchers have

therefore confined their observations of the limitations of the dynamically changing, but ever-promising, ICT-based solutions to Disability to mere accessibility issues. They neglect the whole terrain of Disabling experiences that remain unresolved, and to a larger extent unresolvable using technology (what is called macro aspects in this research – which will be explored later). The researcher’s hypothesis in the current study is that urbanization and employment as Disabling experiences are two such terrains that remain outside of what is solvable through technology (and ICT) and are also constrained by the negative political economic determinants of underdevelopment which make the policies of developed nations inapplicable.

2.3 Disability and Underdevelopment

2.3.1 Disability and Underdevelopment: The Case of Myanmar

It is helpful to summarize again the main premise of this study for selecting Myanmar as a case study to empirically validate the conclusions derived: given that an overwhelming majority (close to 80 percent) of the Disabled population live in the developing countries, the political economic constraints of those countries may possibly make the Disability policies of the developed countries inapplicable. The promise of ICT-based solutions to bridge this gap was elucidated critically in the preceding sections of the literature review. Therefore, Myanmar is purported to serve as a formidable platform to demonstrate that there exists such political economic constraints that sustain grave Disabling experiences, even while mobile phone-based (the cheapest of the ICT devices) ICT solutions seem to occupy a major portion of the daily lives of the PWD.

Grech (2011) aptly observes that comprehensive research done exploring the nexus of Disability and poverty is rarely conducted. And, Mitra et al. (2011) claim poverty in itself is a grave Disabling experience in addition to its amplifying effect of the living conditions of a PWD. Further, Flynn (2017) claims that CDS is often only concerned with cultural and discursive issues and thus does not have any real material application. Hence CDS, according to Flynn, lacks the conceptual apparatus to address the “real” damage and deleterious consequences of economic recessions (Flynn, 2017). Therefore CDS must better analyze the effects of neo-liberalization Disability by way of individualizing the problem that assigns the responsibility of enabled living back to the PWD themselves (Flynn, 2017). One could argue that mobile phones function in a way that is analogous to a neo-liberalization of Disability, as the latter draws upon technology to make the person who possesses an impairment to “manage” him/herself without relying on overarching social support structures.

While it is true that the majority of PWD live in developing countries, Shakespeare (2016) observes that the lack of good research on this topic adds insult to CDS. In a study similar to the current study, Graham et al. (2013) investigated the concomitant relationship between Disability and poverty in South Africa. With a Disabled population of 10 percent, and with a developing economy where the inequalities of income, employment and education are difficult to be overcome, Graham et al.’s research was conducted to explore how Disability can be addressed as another form of life-bound inequality, yet one that impairs the population concerned (Graham, Moodley, & Selipsky, 2013).

A number of very informative findings were disclosed in the Graham et al.'s (2013) study. For example, Graham et al. (2013) claim that “the Capabilities approach” in economics should be used to assess the relationship between Disability and poverty. This is because income alone cannot account for poverty status where other individual-level capabilities (e.g., age, health status or gender) and social-level capabilities (e.g., gender roles, access to education) affect whether income can be converted in to “functionings” (Graham, Moodley, & Selipsky, 2013). Furthermore, in developing societies where there are investments in education and the like, PWD do not benefit to the same extent as their non-Disabled counterparts, thus widening the gap between the Disabled and non-Disabled living in poor contexts. In this sense, in a poor context, the PWD suffer more in terms of the general social investments done by governments in comparison to the non-Disabled. That is why Graham et al. (2013) rightly point out the same Capabilities approach that one must emphasize the need of “quality” and “accessibility” in many domains (education, healthcare, etc.) when it comes to Disability. Although social protection offers one mechanism that may be able to substantially enhance the capabilities of PWD, there still exist difficulties accessing the grant while the amounts are also very limited confining their usage to household essential items (Graham, Moodley, & Selipsky, 2013).

Grech (2009) correctly highlights that the mainstream poverty alleviation policies aim at lifting people out of poverty through an assumed “trickled down” approach and not the removal of structural and social Disabling barriers. In this sense, as Grech (2009) points out, policy makers often ignore the basic accomplishment of the Social Model of

Disability when addressing the issues of poverty and Disability: i.e., Disability is a social consequence of non-enabling social structures. Therefore, adequate emphasis must be exerted on policy to not only to “lift people out” of lower incomes and place them on higher incomes, but also recognize that their very condition of poverty is caused and amplified by their impairment, as shown by Graham et al. (2013). Hence, from a Capabilities point of view, there are structural barriers that prevent placing the PWD in higher incomes due to their bodily “incapabilities”. Addressing and resolving such structural barriers (e.g., the accessible job venues, lack of accessible and affordable commutation, etc.) are the key to enabling policies; however, these barriers are also unfortunately the locus of political economic determinants which precisely constraint to resolve them. Herein, we have the classic case of the “Opportunity Cost” of development in an underdevelopment context where the allocation of public funds to a particular issue is competing with many equally important development issues (e.g., a typical public investment paradox of a cancer hospital against an accessible public bus service).

In an earlier and important research contribution, Beresford (1996) highlights the Disabled people’s organizations’ challenge of their exclusion from the poverty alleviation discourse, demanding full involvement in the discussion and development of policy. He further aptly recognized the very high percentage of unemployment reported from the PWD where 25 percent of the world’s PWD were unemployed (Beresford, 1996). Beresford (1996) also notes that Disabled women are “doubly disadvantaged” due to the already existing gender discriminations concerning employment (e.g., higher unemployment rate, lower pay, etc.) coupled with their physical impairments; at the same

time, Disabled people of color seem to also experience complex patterns of discrimination (Beresford, 1996). While many of these demographic determinants (i.e., gender, race and ethnicity, age, etc.) are not considered for this study due to the limitations of time and the scope of the research goals, such determinants nevertheless provide a strong foundation for future research on this topic.

It is relatively clear at this juncture that traditional “trickle down” kind of poverty alleviation programs do not address the problem of Disability-connected poverty based on the previous discussion. However it must be emphasized also at this juncture that this study takes a different stance on Disability and poverty alleviation by pointing out the existence of structural barriers (which are mostly political economic) harnessed with underdevelopment which not only do not address the issues of alleviating poverty of the PWD (as did many previous researchers) but also show that sometimes such programs are structurally impossible. The sustenance of Disabling experiences in the developing countries determined by such political economic constraints thus affect both the poor and middle class PWD living those developing countries. In this context, it is illuminating to underline the main poverty alleviating policies proposed by Beresford (1996, pp. 561-563):

- i. The full involvement of Disabled people in the conceptualization, analysis and discussion of poverty.
- i. The economic inclusion of Disabled people.
- ii. The re-allocation of resources.

- iii. The full involvement of Disabled people and their organizations in the development of (anti-poverty) policy.
- iv. Supporting Disabled people's organizations and countering their impoverishment.
- v. A changed role for state and government.
- vi. Aid, development and disability.

Although these policies are admirable given the long-time exclusion of the Disability question in the development debate, one can also notice how many of those proposals are quite ambiguous and imprecise in terms of solving the basic deadlocks of Disability and underdevelopment. For example, Beresford (1996) does not stipulate clearly how the re-allocation of resources should take place in an economy which is largely in recession where the primary welfare priorities reside in education and healthcare. Nor does he describe ways that a developing economy can negotiate the overarching political economic deadlocks of for instance not having a regular industrial growth, to spell out the way in which Disabled unemployment can be tackled. In a country where the general unemployment level is booming due to industrial contraction, unemployment policies for PWD seem to be a non-meaningful, or an irrelevant, issue. Therefore, this basic deadlock of political economy informs the present study in striving to demonstrate the existence of Disabling experiences felt by the PWD in Myanmar due to such macro-level determinants. These macro-level determinants are also not capable to be solved by the ICT-based solutions discussed previously.

2.3.2 Myanmar’s Disability and Economic Statistics

As per current government data, the per capita income of Myanmar stands at USD 1,278 with an extremely modest USD 71 billion GDP. The economy is largely agriculture based where nearly half of Myanmar’s employed are engaged in agriculture related activities. The 2014 Myanmar Census (Ministry of Immigration and Population, 2014) indicates that 2,311,250 persons in Myanmar, or 4.6% of its population, lived with some form of disability; more than a quarter of the population with disabilities had multiple disabilities. Figure 1 below shows that more PWD live in rural areas than in urban areas.

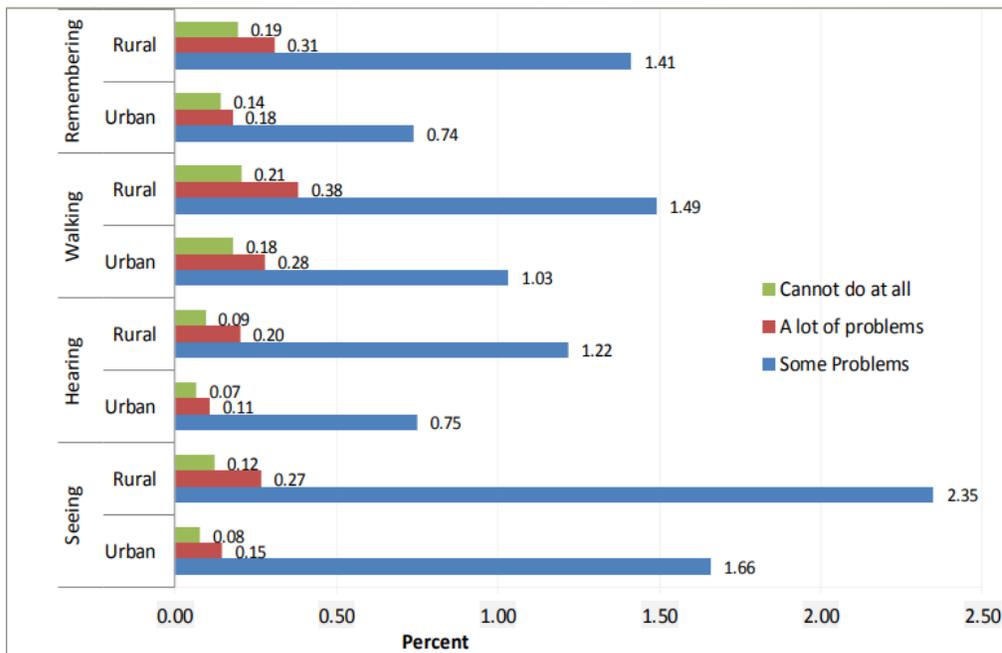


Figure 1: Urban/rural divide of the Disabled population in Myanmar

Source: (Ministry of Immigration and Population, 2014)

In the past decade, the Government of Myanmar has taken a series of actions to support PWD. Many of these actions relate to legislation and policy drafts. Ratification of the CRPD in 2011 (Ministry of Immigration and Population, 2014) is a major victory that

the entire Disabled population achieved in their pursuit for freedom and dignity. This step paved the way for many national policies that helped to address the issue of inclusive development in domains such as accessible public transportation, digital access and other accessibility problems faced by the PWD. However, amidst several national policy actions such as the aforementioned, Hurulle et al. (2018) found that many PWD in Myanmar continue to face a vast number of non-inclusion related discriminatory practices in their lives, which remain largely unexplored and unaddressed effectively (Hurulle, Fernando, & Galpaya, 2018). Meanwhile, although the issues of Disability in Myanmar seems graver, there exists little reliable literature on this topic, apart from the studies already cited here. This gap in the research justifies further the selection of Myanmar as a window for evaluating the intersections of Disability, underdevelopment and technology.

2.4 Micro and Macro Aspects of Disability

2.4.1 Defining Micro and Macro Aspects of Disability

The terms “micro” and “macro” have been seldom used in previous literature concerning Disability, especially in its explication of ICT-based (technology based) solutions and political economic super-structures. An extensive literature review revealed no publications that discussed the difference between micro and macro aspects of Disability. Therefore, this study is among the first to discuss the micro and macro aspects of Disability and present the idea that the experience of Disability itself is two-fold: some requiring individual-level (i.e., micro-level) solutions (mostly provided by ICT solutions) and many others requiring political economic (i.e., macro-level) responses. As discussed

earlier, the empirical evidence to support the existence of macro-level (political economic) problems confines the reach of ICT-based solutions to individual-level problems, and secondly verifies that Disabling experiences of a profound nature are persistently being caused by political economic constraints that are not solvable by technological aids. Therefore, the introduction of the distinction between the micro and macro aspects will highlight the largely ignored aspects of Disabling experiences, which are usually reified and made invisible.

2.4.2 The “Experience” of Disability

As it is evident by now, the expression “experience of Disability” is often used throughout this study (in compliance with the traditional use of the term in Disability studies literature) to refer to the encounter of a “Disabled-ness” by a person with an impairment. This encounter is frequently associated in literature as the point of passage through a “Disabling experience” which could have been avoided by the existence of enabling policies. For example, Brett (2002) reported how the parents of a child with a bodily impairment experienced a form of Disability from the social structures due to the barriers they faced in raising the child. Brett further states that parents clearly expressed that they saw the cause of Disability as related not to the nature of impairment but as due to the way disability is perceived by society (Brett, 2002). Synonymously, Koca-Atabey (2013) states that the change in the living environment of a PWD effectively changes the experience of Disability itself. Koca-Atabey asserts that the social nature of Disability is reaffirmed by changes in the social environment that a PWD has to navigate daily (Koca-Atabey, 2013).

In a telling passage, Vick (2013) summarizes the notion of the “experience of Disability” that is often used in Disability literature: “.....disability is a complex subjectivity where the biological realities of bodies and their social and institutional construction are entwined. This view reflects what I term an ‘embodied politics’, the ways lived bodily experiences inform, and are impacted by, societal structures, relationships, practices, ideologies, and policies” (Vick, 2013, p. 178). In Vick’s sense, then, the “experience of Disability” refers to the complex entwined relationships among impaired bodies, social and institutional barriers, ideologies, policies and human relationships. These networks of relationships create the condition known as a “Disabling experience.” In turn, this characterization also testifies to the fact that such a Disabling experience can be effectively and productively overturned and made “enabling” through enabling networks.

In this sense, this study also follows the predominant Disability literature in characterizing Disability as an “experience” rather than a medical condition. This characterization corroborates to the Social Model of Disability as well.

2.4.3 Differential Experience of Disability in Urban and Rural Areas

Several researchers in the Disability literature have described the existence of a general health disparity between urban and rural areas. For example, Barton et al. (2015) use empirical evidence to demonstrate how the rural PWD in Australia possess poorer health outcomes with higher risk factors and have shorter live-spans, with higher levels of illnesses (Barton, Robinson, Llewellyn, Thorncraft, & Smidt, 2015). In addition to the general disparity of health-related factors, it is important to highlight the existence of a

differential experience of Disability between urban and rural areas which are caused by various socio-political reasons. The most predominant factor that causes such a Disabling disparity is poverty.

Using empirical evidence from Iran, Don et al. (2015) claim that although regulatory and legislative approaches have strived to bridge the disparity, unnecessary barriers that are largely dependent upon political economic determinants (such as the flight of capital, budgetary provisions for social welfare, etc.) continue to cause immense Disabling experiences to the PWD living in rural areas. Given the fact that 70 percent of the world's poor live in rural areas (Don, Salami, & Ghajarieh, 2015), it is expected that many of the PWD living in the rural areas are poor in their economic status. Therefore such poorer PWD living in rural areas of a developing country seemingly make their lives much more precarious. Moreover, Don et al. (2015) quite correctly assert the fact that research on this area is very seldom found where the intersection of poverty, underdevelopment and Disability seem to form an unhealthy coalition.

According to the observations by Don et al., since nearly 70 percent of women with Disabilities live in rural areas (Don, Salami, & Ghajarieh, 2015), research on the interaction of gender with the Disabling rural barriers is under-researched. Building upon this premise, Samararatne et al.'s (2015) study of Disability in Sri Lanka found that the Disabled women particularly residing in rural landscapes within an underdeveloped context are the most marginalized of all Disability groups (Samararatne & Soldatic, 2015). They further claim that Disabled women living in rural post-armed conflict areas face the greatest of difficulties in the peace-building process while they are immensely

vulnerable to various forms of physical and sexual violence in addition to their vulnerability to abject poverty (Samararatne & Soldatic, 2015). Gender-related discrimination seems in this sense an extremely valid topic of research for the future.

Health disparities, poverty and gender discrimination are immensely harsh realities that the PWD living in rural areas face in their day-to-day lives. These are extreme forms of how these PWD experience Disability in their living landscapes. However, due to the confinement of the scope in this study, those variables were not analyzed while admittedly they possess very interesting aspects for future research. For the purposes of the current study, the differential experience of Disability between urban and rural areas will be investigated. The researcher purported to find whether the experience of Disability is different for the PWD living in urban and rural areas based on the level of accessibility to public infrastructure, public transport and public space.

The research on the urban and rural experiences of the PWD is extremely rare in the field of disability studies. However, Gething's (1999) earlier research provides a good overview about the differential way in which state services are provided to PWD living in urban and rural areas. Based on a study conducted in an Australian setting, Gething claimed that when researching about Disability, area of residence needs to be accounted for when assessing the level of barriers that permeate PWD lived experiences (Gething, 1999). Gething further observed that equality in access to up-to-date information, choice and range of services, etc. among the urban and rural dwellers of Disability must be enforced. Gething (1999) concluded that disability in rural areas puts the PWD in a "doubly disadvantaged" position.

However, Maart et al. (2007) found contradictory evidence in South Africa to conclude that the sample of PWD in the rural areas in general perceived fewer barriers within their environment than those residing in informal urban settlements. They hypothesized that this perception could be based on rural dwellers' lower expectations in comparison to those of urban dwellers (Maart, Eide, Jelsma, Loeb, & Ka Toni, 2007). However, the main difference between these two studies (Gething and Maart et al.) is that the latter research adopted a quantitative methodology whereas the former used an interview-based field research.

Taub et al.'s (2009) study conducted in the United States found that environmental barriers, such as crowded social spaces, segregated seating, and inaccessible physical structures, hinder the social relationships of Disabled women. They further claim that these barriers affect choices and opportunities to socialize and promote physical and social isolation. In this sense, it appears that public space is not only a matter of accessibility that concern the PWD, but also functions as a platform that affects their social relationships. Hence, the study of the differential Disabling experience of urban and rural dwellers who are Disabled proves to be a formidable topic in the research about the social problem of Disability. Moreover, such differential experiences help to demonstrate that those Disabling experiences are macro in nature whose solutions are beyond individual-level ICT solutions.

Furthermore, the relative lack of extensive research on the topic of urban and rural stratification of Disabling experiences makes it difficult to find a better conclusion in assessment of the quality of life of the urban and rural dwelling PWD. This study takes

this challenge ahead and grapples to find with empirical evidence from Myanmar whether the underdeveloped context generates differential Disabling experiences between urban and rural dwellers.

2.4.4 Experience of Disability in Terms of Mismatch between Desired and Available Jobs

The second lens in which the existence of macro-level Disabling experiences is to be discerned in this study is investigating the mismatch between the desired and available jobs for the PWD in Myanmar. In this case, it is assumed that a condition is a strictly Disabling experience if the non-availability of a job that can approximately match the skill level of a Disabled person, who can perform the said job on par with a non-Disabled person with or without any assistive devices, where this non-availability occurs because of his/her physical impairment only. In this sense, this study does not only investigate the unemployment level of the PWD in Myanmar. Rather, it also explores whether skilled PWD are not able to find a desired job because of their impairment. The researcher is also interested in describing the PWDs' perceptions of the causes of this mismatch (as hypothesized) and whether the PWD ascribe this mismatch to macro-level political economic aspects.

According to Hurulle et al. (2018), lack of job opportunities, training deficiencies, communication challenges and work place discrimination are the main employment challenges that PWD in Myanmar face. In this context, Mitra et al. (2011) note that job creation and anti-discriminatory employment policies are strongly connected to the economic development of a country. As they further claim, due to the expected decline in

the working-age population in the world, especially in European countries, PWD are now more often recognized as a valuable resource in the workforce and research into disability and employment is more important than ever (Mitra, Posarac, & Vick, 2011). The extension of this recognition to an underdeveloped context is again questionable given the fact that general unemployment levels of developing countries tend to reside at higher levels, irrespective of aging populations.

The general mistreatment of the PWD can be inferred to be relating to the social stigmas associated with PWD (Antle, 2004; Turner & Samuel Noh, 1988). Given the overall underdevelopment of Myanmar (as a developing country), according to Mitra et al. (2011), receptive and tolerating workplaces cannot be expected to exist as the social stigmas do not encounter resistive social attitudes sponsored from various progressive social forces. Therefore, especially in an underdeveloped context, the State should play a major role in inculcating resistive social attitudes that harness a conducive public space for the PWD (Goodley, 2011).

As per Myanmar Disabilities Law Sections 36, 75-76, and 81, employers must employ women and men with disabilities to the jobs that are appropriate for their abilities and capacities and in accordance with the quota specified by the National Committee on the Rights of the Disabled People. In doing so, employers must select and employ persons with disabilities who are registered at the relevant township Employment Exchange Offices. Employers must make appropriate arrangements for the job interview for the persons with disabilities, and ensure them equal rights with other workers in relation to interviews, wages, opportunities, promotion, job security and access to free

vocational education and training based on their employability. In particular, employers shall not suspend, fire, demote and transfer Disabled employees without any sound reasons. Employers must submit the list of employees with disabilities, as well as the job vacancies, to the township Employment Exchange Offices (International Labor Organization, 2017). The aforesaid legal provisions have been enshrined in view of the CRPD ratification that was done in 2011.

This demonstrates that Myanmar has already legislated a considerable number of policies that affect the job-creation and employment of PWD. Those provisions closely relate to the enshrinements in the employment section of CRPD as well. However, as observed during the field work for this study, there are numerous barriers that sustain regressive Disabling experiences for the PWD in Myanmar concerning employment. As Hurulle et al. (2018) state, unemployment is only one among other barriers to inclusion that the PWD experience in terms of employment. Therefore, one crucial goal of this study is to explore how the previously disclosed mismatch between desired and available jobs persists in a context where legislative procedures have already been established promoting the eradication of such barrier-making mismatches.

Underdevelopment plays a major role in the problem of unemployment, not only for PWD but also for a country's entire population. Therefore, economic growth and development will inevitably contribute positively towards solving the employment related barriers of the PWD (Mitra, Posarac, & Vick, 2011). However, this does not mean that the better a country's economic wealth, the better its enabling social atmosphere, although there is potential that this is true. Meanwhile, the implementation of the entire

gamut of Disability Law provisions on employment (as described above) largely depend on the institution of the National Committee on the Rights of the Disabled People of Myanmar. Yet, the Committee was not instituted at the time of this study's field work. The failure to institute the Committee thus acts as a major hindrance to the effective implementation of the disability employment policies (Hurulle, Fernando, & Galpaya, 2018).

On this account, it is worthwhile to briefly investigate the merit and worth of the disability employment policies in a country whose practices can be easily benchmarked. Meager et al. (2006) report an elaborate discussion of the many of enabling employment policies implemented in the UK in support of employable PWD. The aforesaid policies can be divided into several broad (and partly overlapping) categories such as:

- i. Mainstream active labor market measures (these are employment or training programs, not specifically targeted at Disabled people, but in which Disabled people can participate, often on different or advantageous terms, compared with non-Disabled people)
- ii. Active labor market or support measures targeted at Disabled people
- iii. Employer-focused measures
- iv. Tax and benefit reforms and incentives
- v. Anti-discrimination legislation and institutions

As Meager et al. (2006) explain, such rigorous anti-Disabling employment policies are only possible in a national economy organized in such a way that such large public expenditure on PWD is possible. It must be noted that such massive public

expenditure is possible only in a country (mostly developed) where tax income generated can effectively be diverged for such priorities. Therefore the application of such policies depends largely upon the level of economic growth of the concerned country (Mitra, Posarac, & Vick, 2011). Moreover as Zhuang (2016) claimed, much of such heavy-weight government sponsored policies and measures are closely related to a well-functioning social welfare economy. As pointed out earlier, the main gap in research on this topic is to assume that such easy application of social welfare policies is possible in a largely poor country in equal proportion to that of a well-established mature economy. This assumption neglects the fact that Disability is closely tied to the overall economic capability of the country as well. This connection signals the overarching political economic determinants that sustain macro-level Disabling experiences.

2.5 Conclusion

The preceding sections elaborated the importance of studying Disability as a social problem, especially in the times where ICT-based solutions promise to eradicate Disability forever. The preceding sections also discussed the merits and demerits of ICT-based solutions offered for PWD. Thereafter, a thorough examination about the nexus between Disability and underdevelopment was conducted. Based on this examination, it was hypothesized that experiences of Disability located in the aforesaid nexus pertain to a “macro” domain whose solutions are determined by overarching political economic factors. The disclosure of this domain purported to confine the emerging ICT-based solutions to only a “micro” domain.

3. METHODOLOGY

3.1 Context

The data for this study were collected in a month-long field study conducted in Myanmar by LIRNEasia³ as a part of a much larger research focused on “Inclusive Development and ICT.” The results of this project are published at lirneasia.net/disability. The previous study focused on the exploration of how ICT solutions helped to resolve problems faced by the PWD in a developing context. The current study hypothesizes that LIRNEasia’s proposed solutions mainly address the micro aspects of Disability. As explained above, the key contribution of this study is the recognition and exploration of macro aspects of Disability, establishing that the experience of Disability is two-fold: urban versus rural disparities and employment mismatches. The researcher endeavors to persuade the readers to recognize that these macro aspects are even much graver forms of Disabling experiences in comparison to the individual-level barriers now bridged by ICTs.

However, the study’s research design will substantially coincide with LIRNEasia’s previous study, since the research goals of the present study are based on the data collected during the aforesaid field work. The data from the primary research project contain approximately 30 interview transcripts across all formats (Focus Groups,

³ LIRNEasia is a pro-poor, pro-market think tank whose mission is catalyzing policy change through research to improve people’s lives in the emerging Asia Pacific by facilitating their use of hard and soft infrastructures through the use of knowledge, information and technology.

In-depth Interviews and Key Informant Interviews). Table 1 provides the definitions of key terms used in this study.

Table 1: Working Definitions for This Study

Persons with disabilities (PWD)	Individual who either has one or more of the following a) visual impairment b) hearing impairment c) mobility impairment (see below for definitions for the impairments). Although those with intellectual impairments would also often come into this definition, it has been excluded for the purpose of this study.
Visually impairment	Difficulty seeing, even if wearing glasses
Hearing impairment	Difficulty hearing, even when wearing hearing aid
Mobility impairment	Difficulty walking, climbing steps and carrying items
Information and communication technology (ICT) user	Individual who owns and has used a mobile phone in the past three months, and/or has used a computer in the last three months
Assistive technologies (AT)	Assistive devices and technologies are those whose primary purpose is to maintain or improve an individual's functioning and independence to facilitate participation and to enhance overall well-being.
Urban	PWD living in the capital city of Myanmar – Yangon *Applicable regions in the sample: Yangon
Rural	PWD living in other areas of Myanmar except for the capital city Yangon, assuming that given the country's overall underdevelopment, a dweller in a part of the country that does not belong to Yangon is relatively exposed to a significantly lower quality of life. *Applicable regions in the sample: Mandalay, Ayeyarwady, Shan

LIRNEasia delegated the conduct of the field study to a local market research agency called “Kantar Public” (a subsidiary of the multinational Kantar Research). LIRNEasia’s researchers attended all interviews (in all formats) to observe the ethical standards followed in the field work and to ensure that research goals were achieved during data collection. Thorough ethical guidelines were followed when recruiting participants for this study. Given that Myanmar did not possess a separate body to review research proposals, LIRNEasia voluntarily complied with its institutional ethical standards. Appendix 3 outlines some of the key ethical guidelines that were followed when recruiting and interviewing the Disabled participants. Appendix 4 contains excerpts from the “Request for Proposal” (RFP) and relevant clauses from the Contract between Kantar Public and LIRNEasia that pertain to ethical guidelines.

3.2 Research Design

The Focus Group Discussions (FGDs) and In-depth Interviews (IDIs) were conducted in four regions of Myanmar: Yangon (the capital), Mandalay, Ayeyarwady and Shan. These areas were selected if one of the two following criteria were satisfied: (1) having a large number of Disabled individuals residing in the considered area, or (2) having a high percentage of PWD in the considered state/region (see Figure 2 below).

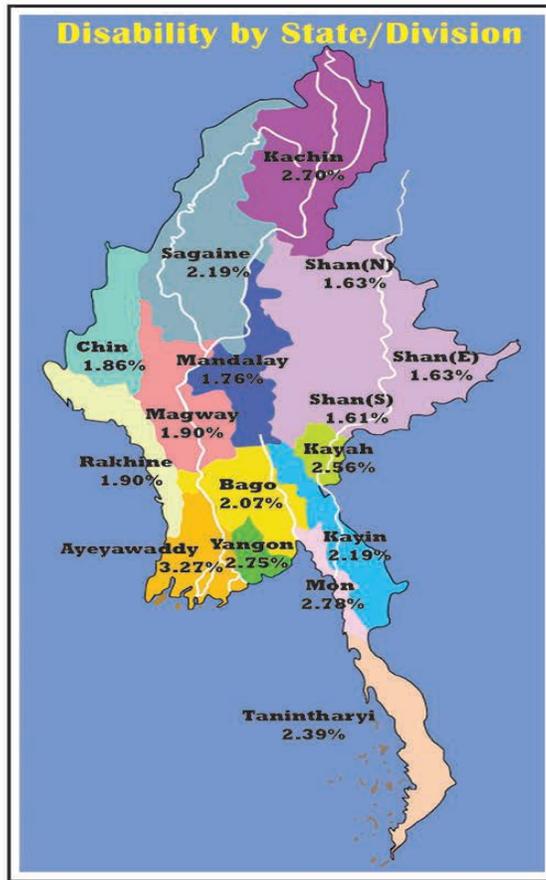


Figure 2 : Disability by State/Division

Source: Myanmar National Disability Survey (2010)

This study focused on three types of disabilities: physical, visual and hearing. The questions used to screen for the incidence of Disability were the same as used in the 2014 Myanmar National Census. Given the study's time and resource limitations, only those individuals with severe disabilities were included in the study. For example, for visual disabilities, only those who said they cannot see at all without glasses, or those who had a lot of difficulty seeing without glasses, were included in the study.

The sample was comprised of an approximately equal number of male and female respondents. Respondents also were equally distributed between each age category and

each socio-economic category (see Appendix 1 for this demographic information). The screening criteria were established to ensure that a minimum of 30 percent of the respondents was employed, thus allowing for an investigation of the research questions about employment mismatch. This strategy was also employed as the study was expected to reveal the difficulties faced by PWD in the employment domain. Also, the sample strategy allowed for recruiting participants who were employed in occupations other than masseuses, a popular profession among the Disabled in Myanmar (Department of Social Welfare, 2010).

Quotas were set to ensure that ICT use was taken into consideration when selecting participants. A minimum of 70 percent of those owning a mobile phone were expected to be users of smartphones, mirroring the corresponding smartphone ownership statistic of 78 percent among the Myanmar population aged 15-65 in 2016. At least 20 percent of ICT users were expected to have used ICT related Assistive Technologies (AT). A list of ICT-related AT provided to the recruiters is provided in Table 2 below.

Table 2: ICT-Related Assistive Technologies (AT)

Type of disability	ICT related assistive technology
– Visual	<ul style="list-style-type: none"> – Screen reader – Magnifying software – GPS-based navigation device – Adapted keyboard – Online/remote-access services (e.g., bill payment, food delivery)
– Hearing	<ul style="list-style-type: none"> – Amplified telephone – Headphones – Online/remote-access services (e.g., bill payment, food delivery)

<ul style="list-style-type: none"> - Mobility 	<ul style="list-style-type: none"> - Magnifying software - Adapted handset/keypad - Hardware support frames - Online/remote-access services (e.g., bill payment, food delivery)
--	---

3.3 Focus Group Discussions (FGDs)

Three paired pilot interviews were conducted, after which the discussion guide used for interviews were amended. Seventeen FGDs were conducted, which included a total of 81 respondents (see Appendix 1). Efforts were made to keep the focus group participants homogenous in terms of type of disability, use of ICTs, gender, socio-economic classification and age, to allow the participants to engage in conversation with ease. The team also attempted to hold the FGD in accessible locations, which allowed participants convenient mobility.

3.4 In-Depth Interviews (IDIs)

Twelve IDIs were carried out in the four states/regions (see Table 3). Participants who had spent at least 90 percent of their time at home in the three months preceding the interview were chosen. This criterion was imposed based on the assumption that such immobile participants' Disabling experiences were significantly different from PWD who commuted frequently, which enabled them to arrive at the public FGD location as well. For example, it is hypothesized that for such an immobile person with a disability, the areas of residence, whether urban or rural, would not have mattered in comparison to that of an individual who expects accessibility in public places. However, the researcher paid attention to the fact that inaccessibility could have also impacted the decision of such

immobile dwellers to remain at their homes instead of going out to public space. Overall, this criterion assisted in discerning some significant Disabling patterns of both the urban and rural dwellers.

Table 3: Disability Characteristics of IDI Participants

Location	No of IDIs	Type of Disability
Yangon	4	2 Mobility 1 Hearing 1 Visual
Ayeyarwady	2	1 Hearing 1 Visual
Mandalay	4	2 Mobility 1 Hearing 1 Visual
Shan	2	1 Mobility 1 Visual
Total	12	5 Mobility 3 Hearing 4 Visual

3.5 Key Informant Interviews (KIIs)

Five influential persons who were actively engaged in Myanmar’s Disability activism platforms were contacted and interviewed regarding their experiences with PWD, and the role of ICT in assisting the lives of these people. They were able to weigh in on broader aspects surrounding challenges and opportunities for the PWD that included legislation and policy implementation. The KIIs took place in Yangon in the key informants’ workplaces.

3.6 Key Methodological Decisions

All 17 FGD transcripts, 12 IDI transcripts and 5 KII transcripts were coded and examined to find evidence to support this study’s research hypotheses and questions. The initial Discussion Guide used for field work was designed to better collect information

about the day-to-day difficulties and barriers faced by the PWD living in all the selected regions of Myanmar (see Appendix 2). A special effort was made to gather information on four key domains: education, employment, transportation, and social networking and connectivity. These four domains were considered to represent the most elementary and fundamental aspects of daily life that PWD encounter.

3.6.1 Research Question 1: Differential Disabling Experiences between Urban and Rural Dwellers

The primary hypothesis guiding this research question informed by previous literature (Gething, 1999; Taub, McLorg, & Bartnick, 2009; Maart, Eide, Jelsma, Loeb, & Ka Toni, 2007; Graham, Moodley, & Selipsky, 2013; Don, Salami, & Ghajarieh, 2015) is that the “experience of Disability” by the PWD living in rural areas of a country is significantly stronger in comparison to that of the PWD living in urban areas of the same country. This difference can be explained by various factors such as disparities in public space accessibility, prevalence of inaccessible public transport, disparities in public and private service provisions, healthcare disparities, differences in social attitudes, beliefs and values, differences in familial and community structures, etc. The researcher was not primarily interested in finding answers to a disparity found between urban and rural living. Rather, this study aimed to establish whether a disparity in the Disabling experiences existed in the first place. Therefore, in coding the transcripts, emphasis was placed on highlighting the existence of disparities (if found) rather than striving to account for their determinants.

In highlighting the differences in the experience of Disability between urban and rural dwellers, the researcher mainly focused on their pronouncements in the sphere of accessibility to public infrastructure, public space and public transport. However, it is clear that the same differences in experiences can also be detected in reference to many other spheres. In this manner, the previously hypothesized difference in the experience of Disability between urban and rural areas (the latter being stronger than the former) was only discerned by looking at the participants' responses in articulating their daily troubles, difficulties and aspirations related to accessing public infrastructures (such as government buildings, public offices), public space (such as public parks, public recreational spaces), and public transport (such as public buses, trains, pavements, crossings). It was thereby hypothesized that there is a significant difference in such troubles, difficulties and aspirations faced by a Disabled urban dweller and a Disabled rural dweller.

3.6.2 Research Question 2: Disabling Experiences Associated with Employment Mismatches

The primary hypothesis guiding this research question informed by previous literature (Beresford, 1996; Graham, Moodley, & Selipsky, 2013; Flynn, 2017; Grech, 2009; Mitra, Posarac, & Vick, 2011; Shakespeare, 2016; Zhuang, 2016) is that the non-availability of a formidable job market that provides suitable jobs corresponding to the acquired skill levels for the PWD living in Myanmar is itself an experience of a graver form of Disability. Thereby, the lived experience of a person with an impairment of not being able to find a desired job (assuming that adequate skills are possessed by the

individual concerned) and consequently being condemned to only a handful of precarious jobs (such as massueses) is defined and designated as a form of Disability itself.

Most of the data connected to this research question were found in the participants' responses to questions related to the difficulties they faced in employment and questions related to their future aspirations. However, the researcher also perused the entire transcript to find relevant information that may have been described in other parts of the interview.

3.6.3 Coding Plan

The Discussion Guide used included questions on the basic demographic details of the participants and questions pertaining to four major domains of life of a disabled individual to better ascertain the main barriers and difficulties that they face in those domains (see Appendix 2). These domains were education, employment, transport and social connectivity. These domains are not exhaustive by any means, as the initial study had confined its scope to these domains due to various constraints. Furthermore, questions concerning the participants' future aspirations, what they demand from the regulators, their family backgrounds and other probing questions based on the particular interview were asked.

Following this sequence of the Discussion Guide, the previous LIRNEasia's study established pre-determined "themes", namely; Demographics, Family Background, Education, Employment, Transport, Social Connectivity and General Comments (miscellaneous). These themes coincided with the flow of the Discussion Guide. However, due to the difference in the research questions of this study, the same themes

could not be used in pursuit of this study's research goals although some coincidences of the themes were allowed. For example, the researcher allowed for the earlier themes "Demographics", "Nature of Impairment", and "General perceptions of day-to-day Challenges", to continue while establishing the following new themes in accordance to the present study's research goals: "Public Infrastructure, Public Space and Public Transport" (to address the first research question); "Employment Aspirations and Future Ambitions", and "Barriers to Employment" (to address the second research question). At the same time, the researcher acknowledged and included three more themes that emerged during analysis, which were not pre-determined, but rather that emerged during the analysis process: "Living independently" (related to the first research question); and "Selection of a Career" and "Alternative Careers" (pertaining to the second research question).

In contrast to themes, pre-determined codes were not established. Rather, codes were assigned inductively, when a significant pattern appeared when reading the transcripts. Then, such codes were categorized under the pre-established themes. The researcher also placed emphasis in differentiating the transcripts by the type of Disability. Accordingly, transcripts from the hearing impaired participants, visually impaired participants and physically impaired participants were analyzed and coded separately. However, the pre-established themes were the same across all types while the codes were assigned inductively in each case.

Having the same themes ensured easy comparability across each type of Disability while differentiating the coding plan according to the type of Disability

crucially avoided the easy homogenization of all types of Disabilities since it is well established in literature that every type is unique in its own experience. At the same time, the researcher avoided the saturation of codes across each type of Disability by assigning similar codes, if not the same code in most occasions, for similar patterns of responses. However, the researcher also took precautions to avoid homogenization of codes in the analysis of each type of Disability by treating each response on its merit. Furthermore, if any response did not correspond to a pre-established theme, a new theme was established according to the newly emerged pattern/response. For example, a new theme was established in the case with several hearing impaired FGD participants in Shan region, and for several IDI participants in Mandalay region where they reported about their daily habits. As discussed below, the habits were intimately related to the day-to-day lives of these PWD as they invested a major portion of their daily time to engage in the habits in a situation where they could not make a job out of them.

When reporting the results below, pseudonyms are used to protect participant confidentiality. The 6-digit pseudonym includes the respondent number assigned at screening, the type of Disability (H=hearing impaired; P=physically impaired; V=visually impaired), gender (F=female; M=male), and the participant's region of residence (A=Ayeyarwady; M=Mandalay; S=Shan region; Y=Yangon) (e.g., R15HFS = R15: Respondent 15; H: Hearing impaired; F: Female; S: Shan region).

4. RESULTS

4.1 Differential Disabling Experiences between Urban and Rural Dwellers

In striving to understand and discern differences in the experience of Disability between urban and rural dwellers, a comparative perspective of the emerging themes is provided in the sections below. Thus, a corresponding rural experience and urban experience was provided for each theme.

4.1.1 Living Independently

Grossman and Magana (2016) infer that family support systems are a key assistive mechanism that allow PWD to live more independent lives. Breaking away from such default support systems might suggest stronger freedom in terms of independent living (Grossman & Magaña, 2016). However, non-familial external social support systems, such as enabling infrastructures, would be required in order for a Disabled person to effectively defer their reliance on traditional familial support systems. The existence and character of such support systems might be different for urban versus rural residents.

Several Yangon respondents reported that they live independently of their family, either studying in a special-education school or engaging in a private employment. For example R7HMY, a 24-year-old masseur based in Yangon, described how he leads his life in the city;

“I don’t live with my parents because I go to work. I used to live in the Mary Chapman School for the Deaf. However, I don’t live there anymore. I rent an apartment and live alone.”

R14PMY, a former sportsman now employed at the Ministry for Sports in Myanmar, described how he owns his own house and lives with his spouse and son, leading a comfortable life. Although it appears that he spends most of his life confined to his house for reasons not probed, he being able to own his own house and live independently in Yangon proved to be a stark difference to rural dwellers:

“Me, my son and my wife. He is 13 years old. Now, he is going to attend eighth Standard. For me, there aren’t [many] difficulties because I live with family and I spend most of my time at home.”

However, the experience of leading an independent life away from their foster families is not a common recurrence for the rural dwellers. Although a family-based support system is present for both urban and rural dwellers who are Disabled, urban dwellers more often than not found it to be easy to live independent of their familial homes. As Grossman and Megana (2016) find, this move can be largely due to better economic prospects found in cities. The case of R23HFY, a broker from Yangon, shows a somewhat opposite story to that of the two participants described above. She had been married to another hearing-impaired person with whom she lived independently in Yangon. However after the death of her spouse, she decided to live with her family;

“We are four in the family. My husband passed away already. It has been twenty years now. Now, I live with my family. I have three siblings. I have a beauty salon. It is a private job. I married someone who can hear for me to communicate well.”

On the other hand, the possibility of living independently in rural regions of Myanmar is greatly hindered due to various reasons, of which economic constraints are the strongest. R78HFM, who was desperately looking for a job in Mandalay, was forced to live with a relative;

“I am the only child. I couldn’t pass 10th standard. I am now living with my aunty.”

In several instances, the respondent recalled how, after they became Disabled (those among acquired PWD), their family members and close friends ignored them instead of serving as pillars of strength. For example, R75PMM’s stated that:

“My wife left me after I was a disabled. My son in Yangon is from my first wife. All my relatives in Myanmar left me alone and I am a person with no relatives.”

R75VMS, with few other alternatives, submitted himself to a monastery to spend the rest of his life. His life is a testimony of a case where a once successful teacher, who was now Disabled, encountered the harshest barriers for a PWD in Myanmar society.

“I used to be a tuition teacher in Northern Shan State. I was in [an] accident and I lost my leg and my [eye] sight. And there is no one who can look after me in my family. And I moved to Mandalay Phaung Daw Gyi monastery and they accepted me. Now I am a warden in Paung Daw Gyi Boy Hostel. All the kids look after the things I have to do. I don’t have any other job. I have a son in Yangon and he supports me and one of my friend from Lashio support me, too.”

The three preceding cases were of PWD living in rural areas of Myanmar who, after a sudden life-changing event (in most cases, acquiring their Disability itself), were

forced to submit themselves to live either with their extended family or, in the case of R75VMS, in a monastery. Earlier research that provides a closer comparison of the experiences of the PWD living in urban areas with similar life-events shows that these PWD could continue to live independently in cities, in spite of such sudden events which left them Disabled (Gething, 1999; Maart, Eide, Jelsma, Loeb, & Ka Toni, 2007).

4.1.2 General Perceptions about the Day-to-Day Challenges that PWD Face

Participants were asked an open-ended question about what kind of a Disabling life they experienced before proceeding to narrower life-domains. This question granted the interviewees an opportunity to register their general opinion about the nature of their Disabling experiences. The researcher hypothesized accordingly, that this initial impression would render visible some of the important differences between urban and rural Disabling life, before delving into more targeted domains.

The reaction to this question by the first group of respondents from Yangon was quite similar to each other, in saying that they were more or less fine with their lives and were happy with it. For example, a group of younger respondents residing in Yangon, R7HMY, R8HMY and R9HMY stated respectively;

“Everything is fine.”; “I don’t have any difficulty. I am okay.”; “I am also okay. If a deaf person experiences a problem and show their ID, then they [general public] can know.”

Whereas R17VMY, a visually impaired respondent from Yangon, expressed that although he was deprived of some comforts of life due to his impairment, he was still able to hire teachers to come to his house to teach him when he was young. Without

doubt, R17VMY belongs to the A/B socio-economic category which was the highest income-earning respondent category, where it can be reasonably assumed that a well off city-dwelling resident could afford to hire a home-visiting tutor. These details about income level allude to some of the primary differences between the Disabling experiences between urban and rural living. R17VMY said:

“Though I stayed at home, we hired some teachers from outside to teach me. I was able to learn until high school but the difficulty was with mathematic subjects, that my teachers didn’t know how to teach [to] the blind.”

The experience of the rural-dwelling PWD was significantly different from their urban counterparts described above. Several of the respondents who spoke about their hardships in their rural residential areas often compared their experiences with PWD in Yangon, the capital city. On many occasions, participants shared how their lives would have been different and much more convenient if they had the opportunity to live in Yangon. For example, R41VMS shared how the overall attitudes and culture of the non-disabled general public toward the PWD in Taunggyi (the main township of Shan region) are much more hostile, as compared to Yangon’s overall attitudes and culture. He stated;

“In the beginning, it was difficult a lot. I cannot see things. Going around is not ok, but now I get used to it. I have to memorize the streets again. In everyday life, people think of us as Disabled. It doesn’t feel good. In Yangon, people understand our situation more. People in Taunggyi don’t understand us a lot. I think they don’t understand how to help us. I find they are a bit weak in showing directions to the blind. Some people laugh at us.”

R41VMS's Disabling experience shows how the residents in Yangon are much more accustomed to helping PWD, as they are used to seeing PWD in much of the public space in Yangon. The same experience was felt by R43VMS, who said:

"It's more challenging in the beginning. In Yangon, people already understand that we are blind if they see us with [a] blind stick. But here, only old people use [a] walking stick."

These experiences testify to a certain degree how the rural dwelling PWD aspire to move to cities if they are given the opportunity to do so. Furthermore, several respondents based in the rural areas of Myanmar shared the day-to-day difficulties they faced when asked about their general perceptions of their daily lives. Many of their testimonies represented a considerable reliance on people around them to assist in their movement in public space. For example, R44VMS, a visually impaired resident of rural Shan regions stated;

"I can't see a little bit. I need help from people in new places, for example, crossing roads. But, people help me."

The experience of the hearing impaired in rural areas was not different either. For example, R80HFM expressed great frustration with the experience of not being able to communicate properly in public space:

"It's hard to communicate and find difficulties like this - the one who can hear and deaf people because they don't understand sign language and we don't understand the way they speak to us. If we have a translator, it will be okay."

This difficulty of being constrained from accessing public space and moving freely necessitated that the PWD ask for help from their family members when they wanted to go out of their homes. For example, R58PFA stated;

“My sister accompanied and held me when I walk around. Because, I don't use any artificial limbs. No. I go alone nowhere. Sometimes my friends fetch me to go outside.”

However, as found in the experiences of most of the IDI participants who had not gone out of their homes for the past 3 months (this was a recruiting criterion for IDI's), the inaccessibility of the public space and the frustration felt therein had propelled them to remain at home all times. Overall, as succinctly claimed by R35PFS, they “*struggle a lot*” in rural areas, and put themselves in a “doubly disadvantaged” position (Gething, 1999).

4.1.3 Access to Public Space, Public Infrastructure and Public Transport

The primary lens used to investigate how the PWD living in rural areas are “doubly Disabled” (Gething, 1999) was to look at how their access to public space (which includes all public infrastructures and public transport) is significantly different from that of their urban counterparts living in Yangon.

Some participants occasionally described their relative comfort living in Yangon. For example, R7HMY said; *“It is okay. Normal people support me in everything, such as when I ride my bicycle.”* Future research could investigate whether gender (being male) and age (being relatively younger, aged 23) encouraged him to describe his comfort in this way.

In contrast to these experiences, the rural residents from Shan (Taunggyi), Mandalay, and Ayeyarwady had explicit stories about their hardships resulting from living in rural areas and in areas that are underdevelopment. R41VMS, was quite vocal in comparing his Disabling experience to the relative comfort of living in Yangon. His statement registers a certain notion about how city life in Yangon would be better than their Disabling experiences in Shan region.

“In Yangon, to go to a certain place, we can manage it on our own. I have close friends, regular taxi drivers. We can also use buses. But, here [in the Shan region], they don’t have taxi stand and [have few] buses. I just hear many of the places in Shan, but have never been there.

R41VMS’s claim that life would be easier in Yangon was not confined to the statements about convenient transportation. He further described how even the basic shopping experience that is extremely crucial for independent living is convenient for PWD in Yangon.

“Shops are different. In Yangon, you can easily buy, but here if you want to buy certain stuff, you have to go to city center and then you face the difficulties I mentioned.”

As reported by many of the other participants too, R41VMS stated that the attitudes of the general public towards the PWD are significantly different in Yangon. It was continuously reported that people in Yangon treated them with much affection and tolerance, in contrast to their experience in more rural and underdeveloped areas. He noted the attitudinal and material in-accessibilities that demotivate him to go to the city

center in Taunggyi. In resonance to this experience, R43VMS voiced how people in Shan expect the PWD to have a family member or a friend accompanying them, when they move out of their homes.

“[They] think we always have someone to help us all the time. When going out, we have to remember the road conditions and if I go to the same place twice, I can recognize the road. But now roads are busier. Whether I remember or not doesn’t matter. It is not just safe.”

Although this study does not focus on the social attitudes of the non-Disabled people toward the PWD, it is nevertheless important to note. As described by a number of participants, the general public has an important role in making the public space accessible for PWD. This at least means that accessible public space does not confine its reach to material infrastructure, but it also addresses the general public in their “accessible attitudes.” As further claimed by R41VMS; *“in Yangon, people understand our situation more, people in Taunggyi don’t understand us a lot”* and R43VMS *“in Yangon people already understand that we are blind if they see us with blind stick. But here, only old people use walking stick”*, the “understanding” and “recognition” by the general public plays a pivotal role in making the public space more accessible.

Many Yangon residents claimed that they “are fine” when leaving their homes without the help of any person, which corresponds to a relative development of accessible public infrastructures such as roads, walking paths, pavements, crossings and public transport options such as buses. In contrast, rural residents insisted that they frequently needed and anticipated the help of random people on the road to assist them, as

highlighted by R43VMS's experience. Many rural PWD testified to this fact. For example, R44VMS said *"I need help from people, getting on and off the buses."* While R41VMS explained how the blind stick is not at all sufficient for a visually impaired person to get along the busy and unorganized rural streets:

"Going to city center and super markets and crossing roads is not ok just with the blind stick. We always need someone to help us. I ask my nearby friend to tell me about the post."

In a slightly different fashion, hearing-impaired people not only required the assisting person to guide them across the streets, as the visually impaired people do, but they inevitably are forced to impose upon the assisting person to translate the information they require either to put in sign language or to write them down on the note books that a hearing impaired person frequently carries. The experience becomes complicated further when the concerned Disabled person has to travel to a different city. This was best captured by the narration of R80HFM:

"We mostly go with our family. It is not safe to go alone but okay to go with family. When we went to [Mandalay], we went around the city [in group] for safety purpose. We need someone who can translate, if not we need ball pen and paper and map. We also need phone. If we don't know where we are going, we can just show the address from our phone to someone. We have a look map when we never been to there to make sure we are on the right place or not."

Hence similar to the visually impaired people, the hearing impaired, too, require a person to assist them, especially in rural areas. As R38HFS puts it: *“My friend comes and takes me. I don’t remember streets. Mother never allows to go out alone.”*

As anticipated, the largely inaccessible public space and public infrastructures force the poorer PWD to remain inside their houses. As discussed later, this proves to be a much more precarious Disabling experience, even comparable to incarceration.

R46PFS’s account of this experience is much clearer:

“I don’t go anywhere so I don’t have any difficulty. It’s been years that [I don’t go outside]. But when I wore an artificial leg at the age of 13, I went outside all the time. I feel regretful now. But now, I can’t go.”

This “home-incarceration” is further exacerbated by the fact that many of the assistive technologies and devices are not freely available in the rural areas in Myanmar. To purchase such AT’s, one must travel to Yangon, as testified by R46PFS: *“As my parents are not alive, when they’re alive my dad bring me to Yangon and changed the artificial leg whenever my artificial leg was damaged.”* It appears that after her parents died, she had to live with her extended family. Since she was not married, travelling to Yangon to repair her artificial leg (as she was physically impaired) became more and more difficult; she eventually gave up on travelling to Yangon. Thereby, for the mere fact of the difficulty of travelling to Yangon, R46PFS was forced to remain at home all times. Her story confirms that she was even constrained from attending school, since she couldn’t get her artificial leg repaired in Yangon:

“When I was a child, when I was 13, people said I could wear artificial leg. So my dad brought me to Yangon. Before that, he didn’t let me go anywhere as he didn’t trust me. He didn’t trust me, so I didn’t attend school.

For most of these poorer PWD residing in rural Myanmar, travelling to Yangon in order to enrich their lives is inevitable. It appears as if their life-enrichment is intertwined with the frequency of association with Yangon, not only to purchase AT’s, but also to access better training facilities for better careers, for higher quality education, and to pursue their dreams just like other non-Disabled people. These PWD were forced to travel to Yangon to accomplish these goals. As R41VMS states;

“Moderator: Don’t you use computers?”

R41VMS: We have computers in Yangon, but we don’t have it here. We know basic computer skill like typing.

Moderator: Where did you learn it from?

R41VMS: In Yangon, from my friends who can use it well.”

For R41VMS, learning to use a computer was a Yangon-bound experience, thanks to his friends residing there and not due to any formal training program. Furthermore R43VMS’s experience suggests that not only learning advanced skills such as IT is a Yangon-bound endeavor, but also a relatively common occupation, such as livestock farming appears to be a Yangon-bound endeavor;

“Moderator: What is your hobby?”

R43VMS: I am weak in IT but I want to do the livestock farming.

Moderator: Why can’t you start it now?”

R43VMS: I will think about it when I get back to Yangon.”

The unease and inconvenience of living in a rural area, which PWD like R43VMS experience, even when trying to begin a common economic activity such as livestock farming, was not an exception. This field study provided rich evidence to show how living in an urban area, coupled with relatively stronger accessible public space, gave many PWD confidence to live their lives. Those who could not afford to migrate to Yangon, or at least have access to its facilities, and were forced to remain in their rural precarious livelihoods, were inclined to live a more religious life, rather than trying to win over their day-to-day battles; these individuals were often older as well, thus further limiting their ability to initiate a different life path. R1VMS, who is visually impaired, told a story that is a telling testimony of this trend; *“I can’t work now. As I am a Buddhist and I believe in Buddhism, I work if I have to, if I don’t have to, I just live by myself.”* In the researcher’s opinion, R1VMS’s case stands as a fruitful base for future researchers to explore the aforementioned cultural sentiments that sustain the Disabling experiences of the rural Disabled.

4.2 Disabling Experiences Associated with Employment Mismatches

The second research question concerning the political economic aspects of employment mismatches are explored along the themes “Selection of a career”, “Employment aspirations and future ambitions”, “Alternative careers”, and “Barriers to employment.”

4.2.1 Selection of a Career

“Selection of a career” as a theme emerged during the inductive coding of data where interesting experiences and considerations connected to Disability were revealed. “Massaging” or the professions of “masseuse” is one of the most widely spread professions performed by PWD living in Myanmar (Hurulle, Fernando, & Galpaya, 2018). Therefore the researcher was aware that much of the employment-related Disabling experiences were concerned with this occupation. However, as discussed below, several distinct response patterns related to selection of a career by the PWD emerged during the analysis.

R7HMY, a hearing-impaired gentleman from Yangon, shared with the researchers how his teacher influenced him to learn massaging as a vocation when he was studying in school;

“In 2003, I wanted to learn it. One teacher asked me if I wanted to learn to massage. So, I told her that I wanted to learn it. So, she brought me there and taught me at Mary Chapman School for the Deaf. I learned together with R8 around 6 months there. I leaned it in 2003 and started the job in 2004.”

In addition to R7HMY, it appeared that many of the respondents who engage in massaging as a profession were exposed to and learned massaging when they were already in school. R7HMY further stated how he obtains a monthly salary through his “massage” job. Moreover, many of such early learners continued to do their jobs as masseuses while also being enrolled in school. In most such cases, their work place – the “massage room” as they used to call it – was located on the school premises itself. In this

light, R7HMY said; *“I massage at my school. The massage room is at school. I get the salary every month.”* It must also be noted that, when the researchers were conducting the field visits to several of these schools, the massage rooms were set up in an elegantly professional manner with suitable facilities where the clients could anticipate a high-quality massage experience and service.

On account of working as a masseuse, R10HMY said that; *“I will not work when the school opens. I give money I earn to my parents. I am okay.”* Similarly there were also PWD who performed massaging jobs during their school vacations and not during the school year. In contrast to the earlier case of R7HMY, these respondents were introduced to the career as a masseuse by their nuclear or extended family members. For example, R9HMY explained how his aunt introduced him to massaging where he continued it in his school:

“Last year, I did not have any money nor job. During last year summer holiday, I was helping my family in doing laundry or cooking. [My aunty] brought me to learn how to massage at Mary Chapman School for the Deaf in 2002. I learned it enthusiastically.”

Against this background of how the PWD usually have introduced themselves to the profession of a masseuse where it is currently a very widespread profession among the PWD across the country, the results below show how many PWD registered their deep dissatisfaction of the profession at large. Many of them claimed that they were forced to select being a masseuse for their career as they had few other options, while some claimed that they opted for massaging as a temporary measure.

Overall, the majority of the respondents registered their “unhappiness” with the profession. For example, R44VMS stated that he had “*no other choice from massaging available for us.*” Living in rural Myanmar, the overall underdeveloped status of the area did not offer better options for the PWD. As R43VMS, another visually impaired from the same region, said: “*some of the people think the massage is the only thing the blind can do. Some can understand our situation but some don’t.*” R41VMS confirmed to the researcher that the choice of massaging as a career was a forced choice due to the lack of other viable options: “*There aren’t a lot of choices for us. We need income. We need to have a living and support the family.*” Moreover since poverty, underdevelopment and Disability are closely related to one another (Mitra, Posarac, & Vick, 2011; Graham, Moodley, & Selipsky, 2013; Shakespeare, 2016), many PWD are forced to opt for the inevitable career of a masseuse.

R17VMY narrated in detail his Disabling experience of being forced to engage in a disinterested career - massaging – when he already was passionate about being a teacher:

“When I learned English, I was with my friends attending English classes. I did it for three years. Honestly speaking, [I am not interested at all in massage]. What I like to do is teaching. However, since I was not a graduate, it was not very successful.”

It appears that R17VMY was a victim of the political economic circumstances of his country which did not possess a sound Disability policy to develop a variety of careers for the PWD. His dissatisfaction persuaded him to experiment with several other

professions, and ultimately not being able to choose a career of his liking (not being able to become a teacher):

“Then in 2014, I went back home and prepared to start an English-speaking class. Then I met with Ms. Sophia who came back from abroad. So I decided to learn from her to polish my English. Then I took three days a week to learn from her. There, I stayed in the school again. [Now I am doing all the things I am doing now].”

The deep dissatisfaction with massaging as a career, as demonstrated above, provides a good platform to assess the employment aspirations and future ambitions that the PWD in this study spoke about.

4.2.2 Employment Aspirations and Future Ambitions

Amidst the previously mentioned dissatisfaction with massaging, many respondents shared novel aspirations concerning their careers and what they want to be in the future. Such statements touched upon a variety of careers that expanded beyond being a masseuse. In particular, two participants described their wish to transcend their national borders and reach out to the world. For example, R80HFM said how she wishes *“to go out and want to look around outside knowledge”* She further stated how she likes to travel around the world and experience what it is like to live a Disabled life outside Myanmar. At the same time, R8HMY showed how enormously dissatisfied he is with Myanmar and how he wants to go to London to live a better life:

“I want to go abroad. I do not like living here. I want to go to London. I want to open a painting museum. I have my older sister in London. I want to paint and

sell them at the showrooms. I do not like living here. I think life is better in London. I will also be happy visiting there. I have my older sister in there. She loves me so much too.”

R8HMY’s aspiration to live with his sister in London was not purely because of the economic prosperity and ease of life in London. Rather, it was because he thought London would allow him the freedom to pursue what he really wanted to do for a living - painting: *“Yes, I want to paint and sell them at the museum. I will try hard. I will learn English and try so hard to live there. I will contact people by writing to them.”*

In contrast to those who want to leave their country in search of better prospects in a foreign land, other respondents aspired to do different kinds of jobs, apart from being a simple masseuse. IT-related jobs were most frequently mentioned by participants. For example, R21VMY, a visually impaired gentleman from Yangon, said: *“and what I like is computer. What I want to do is to develop software. I started it when I was [in] grade six.”* As discussed in the literature review above, in an era of more accessible technologies, IT-related professions, although seemingly unrealistic, are quite a lucrative field for the PWD. As described below, however, training deficiencies proved to be a huge barrier that prevents skills-development for such aspirants. As R41VMS said: *“computer courses are not available at school. Later I learnt about audio. I feel like I am good for it. I mean recording. I understand it a bit as I also learned about music.”*

In contrast to technology-related jobs, other participants claimed that they are qualified to work in hotels and restaurants as chefs. For example, R9HMY, who is hearing-impaired said:

“I like working as a chef. When I finish school, I want to be a chef. I am currently learning and studying to be a chef. I want to be a professional chef. When I become one, I will earn a lot of money, and will support my parents.”

Among those respondents who were very unclear about their future, there were individuals like R9HMY who had a clear ambition about his career and what he wants to do, while also effectively working towards that goal. Unlike R9HMY, R10HMY was not studying to become a chef. However, he, too, described his desire to become a chef one day: *“I do not know about my ambition exactly. But I watch to cook. I watch cooking competitions on TV. I want to compete in them.”* It is noteworthy that R10HMY’s interest for cooking was instigated by cooking shows on television, and not by any formal mechanism in school or any other agency.

Participants described other professional aspirations. Among them, R78HFM said that she wants to sew for a living. Sewing as a profession proved to be a popular “go-to” profession for female respondents. Some of them sewed as a hobby. Furthermore, R80HFM shared with us her interest in engaging in a profession that did not require her to use her hearing ability (as she was hearing impaired), but in a profession that relied on her visual capabilities such as:

“Painting, sculpture, computer, handicraft, sewing, teacher of sign language, and teacher at deaf school, chef and so on. There are three persons who are working at some hotels in Yangon. Two persons are at Novotal hotel as a baker and one person is in Kandawgyi Hotel.”

On the other hand, individuals like R10HMY who earlier stated his passion to become a chef, also described his deep interest in sports, as he said *“I want to play football.”*

Although the aspirations were high and numerous, many participants felt it would be impossible to freely engage in the professions that they desired. There were respondents who claimed that their inevitable situation forced them to do massaging for a living at present; they described wanting to save money to realize their aspirations in a later point of time. For example R41VMS said:

“For now, we don’t have a lot of choices for our jobs. But later, if I have some chances I would like to work in ICT field. There is not enough IT trainings for the blind yet. If there are chance, the blind will prove their capabilities more.”

It is clear how R41VMS is severely constrained from engaging in an IT-related job due to the lack of training facilities that are offered at an affordable cost. That is why he is forced to be employed as a masseuse at present, in the hope of doing what he likes to do at a later time. This is further illustrated by R43VMS’s experience where he said *“my family didn’t have any control over me. I chose what is best for me. Massage is our basic work from which we can save money to start a new business.”*

R43VMS went on to state how the government should intervene in their Disabling experiences by allowing them a chance to demonstrate what they are capable of as visually impaired people. His sentiment concerned how the general public, employers, and educators should be made aware of the potential of the PWD in terms of their skills and capabilities, without condemning them to a pre-determined set of vocations, such as massaging.

“I think the authorities (Government) should involve in these cases to let us show our capabilities. If we can prove it, people would trust us and there will be more job opportunities for us.

Hence it is clear from these testimonies that not only that the PWD in Myanmar despise massaging as the only profession available for them, but also aspire to shift toward more skill-oriented professions, if the necessary circumstances prevail to allow them to do so.

4.2.3 Alternative Careers

Not only do the PWD in Myanmar despise massaging and simply aspire to perform better skills-oriented jobs, this study was able to find several PWD who are currently engaged in different professions apart from being masseuses. R23HFY, a hearing-impaired woman from Yangon, described how she successfully runs her own beauty salon:

“I have a beauty salon. It is a private job. My work starts at 8 a.m. I am interested in this. I have been doing my own business for thirty years.”

R23HFY’s story also reveals that the PWD can also be successful entrepreneurs if they are given the opportunity and the support to do so. As described above, many of the respondents who are currently engaged in massaging also aspire to venture in to their own businesses in the future. R23HFY confirms that the impairment may not necessarily be a hindrance to be an entrepreneur.

Others said that they would like to be involved in art as a profession. R8HMY said; *“I also draw paintings. If someone comes and give a photo to paint, I paint that picture. I also have many photos given by my friends to paint.”* Although his artist

activity seems to be organized as a leisure time hobby, he nonetheless claimed that his long-term aspiration is to become a fulltime painter. R60PFA, who learnt to sew from a teacher began gradually increasing her potentials by taking home assignments from her teacher; *“I go first to my teacher who teaches me sewing then I take home stuff to sew from her.”*

Some respondents were involved in sport as a profession. Most of them were sportsmen before they became Disabled or they were a member of a Disabled sports teams. For example, R11PMY, R12PMY and R13PMY were sportsmen based in Yangon, prior to their Disability; they are now working fulltime in the Ministry of Sports of Myanmar, while also being a part of Myanmar’s Disabled teams. R11PMY said that he is *“currently practicing for Asia competition.”* R12PMY said that *“it makes it easier”* for them to play while being seated in the wheel chair. Moreover, they were professional sportsmen who competed at the international level. It seemed for a moment that had won over their impairment by persisting to pursue their passion for sport, as R13PMY said;

“We are playing shot put in the team of disability. We have South East Asian games in Philippines in September. We will come back here after competition and we need to inform to our respective departments. Then, we will have camp once again for Asia games in Indonesia. We came here after we got approvals from our coaches.”

Given the evidence that some PWD transcend constraining circumstances to pursue their passions, it would be now important to understand what issues curtail them from pursuing a career that they desire.

4.2.4 Barriers to Pursue the Aspirations

Hurulle et al. (2018) described in detail the barriers that prevail in the job market for the PWD in Myanmar. The current study does not account for such employment-related barriers in general. This section will focus on what barriers exist that structurally do not allow the PWD living in Myanmar to transcend the traditional professions such as massaging and pursue the aspirations that they discussed, as described above in section 4.2.2.

As pointed out by Hurulle et al. (2018), many training and skills-development related barriers prevent the PWD from acquiring the required skills to compete in the job market. As R43VMS said “*some of the people think the massage is the only thing the blind can do. Some can understand our situation but some don’t.*” It appears from his statement that this negative stereotyping of the PWD - especially the visually and hearing impaired, as massaging is very popular among them in comparison to the physically impaired – lead to the non-expansion of required training facilities to develop their skills. This fact becomes clear from R81HFM’s statement (he is a deputy principal in one of the special education schools for the hearing-impaired students in Mandalay):

“Video Editing and Photoshop is suitable for deaf people. We don’t have someone who can teach. We only have training at school; we hire a teacher for them and do the training at school. Depends on the budgets, we do two or three times a year. Yes, if we get enough budgets from government; we do the training for kids as well. It depends on how many computers we have. This year, we got five hundred thousand Kyats [Myanmar currency] for computer training. So we

go and negotiate with the trainer and make the best. We might need to do the training and do what the best we can do.”

According to R81HFM, video editing, Photoshop and such software work are much suitable skilled jobs for the hearing-impaired students. However, they required skill-advancement not only at school level (elementary skills-development) but also at tertiary level where advanced skills can be taught. However, amidst the demand for training, facilities for such training are not available, especially in the rural regions to provide adequate training to those who demand it. R81HFM thinks that more government spending in terms of subsidies or direct funding can help to address this problem.

Apart from the training vacuum which directly influences the job-preparedness, there still exist traditional discriminatory practices found in most of the lesser-developed countries pertaining to the PWD. For example, R25HFY reported how at work *“the deaf people are”* treated hierarchically *“a bit lower than others, so their salary is less.”* This salary discrepancy is a serious and historical continuation that affirms negative stigmas. Furthermore, not only are PWD paid less than their non-Disabled colleagues, but also they find themselves in a situation where they cannot change their jobs, frequently due to the lack of job opportunities available for them. As R82HFM said: *“It is very hard to work in real society. I don’t get much pay on my current job but it is very hard to change our job because we are deaf.”* In addition to these salary and job market discrepancies, there are usual practices of work-place discrimination. For example, R24HFA said that she *“used to be mistreated when”* she *“learned tailoring.”*

During the interview with R2HFM, a hearing-impaired girl from Mandalay, her mother intervened with our permission and articulated with apparent frustration about her plans for her daughter:

“To be honest, it is difficult for deaf people to communicate with [hearing] people because people do not know sign language. Deaf people cannot understand normal people either. Therefore, we have to support her based on different situations. I have now been trying to save money for her future. Since she is a girl, I worry for her. So, I let her stay at home mostly. I do not want her to go out because she is deaf. So, I guess, she will stay with [the] family for the rest of her life. I will support her, for her future depends on situations. I will sign her in for cooking or sewing classes based on her interest.”

It is clear from R2HFM’s mother’s concern that due to both the negative social attitudes and stigmas against the PWD (especially in a rural region), as well as due to the regressive economic prospects pertaining to a Disabled girl in rural Myanmar, the mother has taken on the social responsibility of her daughter. It also appears that her gender itself is a barrier to be employed in Myanmar, coupled with her impairment, thus another example of “double disadvantage”. Furthermore, as R80HFM, claimed that it was the degree of sign language proficiency among the general public that is of most importance for the hearing impaired people concerning employment. She further stated that the lack of proficiency of sign language among the general public negatively affects the hearing impaired as they are unable to find jobs or be selected for job interviews:

“They have a problem at applying [for] job[s]. At that time they need a person who is capable to translate for them. And then, sign language is very important..... [When] applying [for a] job, training, discussion, and meeting they need a translator. The capable sign language is very important for them. Then, they don’t want to use...the device for them, such as deaf-aid. As far as I know, sign language is the most important for them.”

These were found to be the main barriers that hindered them in pursuing their aspirations.

5. DISCUSSION OF RESULTS

This chapter will provide a discussion of this study's results that were put forth in the preceding chapter. The discussion will be separately pursued for the two research questions. Thereafter, a discussion will follow on the theoretical and policy implications of the results.

5.1 Differential Disabling Experiences between Urban and Rural Dwellers

Section 4.1.1 brought forth evidence to suggest that the PWD living in Yangon (the only region that can be considered as relatively urbanized) had a higher propensity to live independently of their nuclear or extended family. This study did not aim to explore the reasons for this finding. However, as many researchers have pointed out, better economic and social freedom experiences in urban areas allow the PWD to move out of their traditional family environments and live a life of their own (Mitra, Posarac, & Vick, 2011; Grossman & Magaña, 2016). This can be even true for the PWD who wanted to lead a married life. For example, R14PMY lived independently with his wife who was also Disabled. The Disability literature has suggested that there was a tendency for a person with a disability to marry another Disabled person for closer affinity (Grossman & Magaña, 2016).

The evidence from rural areas of Myanmar (Mandalay, Ayeyarwady and Shan) did not corroborate with the Yangon's situation. The PWD living in the more rural areas were less likely to live an independent life, away from their parents. Some of them did not marry. Others were fostered by their parents or relatives until their death. It must be noted that this difference between urban and rural experiences does not necessarily

establish a differential Disabling experience. Rather, the results highlight that there were considerable factors that made urban living more enabling for the PWD in general. More evidence for this was brought forth in section 4.1.2.

Section 4.1.2 suggested that there were crucial differences between urban and rural dwellers in terms of their general perceptions of the daily life-experiences of the PWD. In comparison to the rural Disabling experiences of extreme hardships in moving outside their homes, moving in public space and taking help from people who live near them, urban dwellers' basic impression suggested that they were "fine." Urban dwellers said that despite their impairments, they were able to take help from individuals who were around when they went outside their homes. Relative economic prosperity also allowed them to have access to better services, such as was the case for R17VMY who was able to hire a tutor to visit his home and teach him in school subjects in which he was performing poorly.

Moreover, several rural respondents highlighted the fact that social attitudes in Yangon were considerably different from the attitudes experienced in their respective rural communities. They suggested that the general public in Yangon were accustomed to appreciate and acknowledge the identity of the PWD and assist them whenever they required such help in public spaces. In contrast, the general public in rural regions was not "prepared" or did not possess the necessary social skills (and therefore likely had negative social views of PWD) to appreciate and acknowledge the identity of the PWD. Such an acknowledgement would indicate that human society is necessarily inter-dependent, as we all are temporarily-abled bodied persons, ethically bound to assist

others in their needs (Goodley, 2011). Therefore, in a similar pattern to the previous evidence of independent living, the general perceptions of the daily hardships of the urban and rural dwellers differed considerably.

The two sections 4.1.1 and 4.1.2 were essentially precursors to evaluate and provide context to the more specific experiences brought forth in section 4.1.3. In 4.1.3, Disabling experiences pertaining to the accessibility to public space, public infrastructure and public transport were demonstrated. This theme captured the central focus areas of this research question. Much of the evidences demonstrated in the previous two sections were supported and expanded in this section. As also mentioned earlier, the respondents from Yangon reported a relative comfort in their day-to-day lives in contrast to their counterparts in the rural regions.

First, the PWD living in rural regions who had travelled to Yangon on previous occasions, reported how movement and transport within the city of Yangon was relatively convenient for them. Many said that buses arrived on time to stipulated bus-stops where abundant GPS facilities were available. Some buses were disability-accessible and the bus fares were affordable as well. Others described how shopping in Yangon was also convenient and accessible to the PWD. As Hurulle et al. (2018) described, there were facilities in Yangon, such as currency reading mobile apps for the visually impaired, accessible public buildings for physically impaired and signboards for hearing impaired, as compared to the conditions in rural regions. Thus, the economic prosperity and development in Yangon allows for improvements to the public space to better accommodate those who need special provisions (Zhuang, 2016).

Second, what I would like to call the “attitudinal accessibility” must also be emphasized in accounting for the differential Disabling experiences between urban and rural dwellers. As discussed earlier, many respondents from rural regions reported how the general public in Yangon were “attitudinally accessible” (i.e., welcoming, helpful, and appreciative) in contrast to the “attitudinally inaccessible” (i.e., dismissive, evasive and condemning) general public in rural Myanmar. The frequent usage of “public space accessibility” in Disability literature is narrowly used to suggest the fact that “material” public space (that includes building, pavements, buses, parks, digital domain) should be accessible to the PWD. But, the social attitudes of citizens is equally important. As Goodly (2011) correctly points out, human society is necessarily an inter-dependent entity. Accordingly independent living and inclusion does not mean a simple “writing-off” of one’s social responsibilities towards one’s “Other”. Therefore as accounted by the PWD living in the rural regions of Myanmar, for them, “attitudinal accessibility” also plays a pivotal part in making their lives better. For this reason, the study participants substantially preferred the more attitudinally accessible urban space in Yangon to that of the attitudinally inaccessible rural space in Mandalay, Ayeyarwady and Shan.

Third, following the above “attitudinal differentiability”, the urban dwelling required less and less dependence on their family and friends for an average person with a Disability, given the fact that the general public were more willing to help them in their need amidst the more accessible “material” accessibility found in the city. In this sense, the “attitudinal accessibility” supplemented the “material accessibility” (which includes both analog and digital space). On the other hand, the rural PWD constantly depended

upon their close family members or their friends when they wanted to go out of their homes. This dependence was in addition to the “material inaccessibility” found in the rural space as determined by the overall underdevelopment of the rural regions. An alarming situation that follows from both the material and attitudinal inaccessibility of rural public space is that many of the PWD tended to be “home-incarcerated.” That is, given the overall inaccessibility, they tended to not move out of their homes for long periods of time. They couldn’t trouble their families all the time to accompany them outside, especially if they were fostered by their siblings or other distant relatives. Neither could they afford to go out on their own. As Hurulle et al. (2018) pointed out, internet connectivity in the rural regions was also not strong enough so that they could rely on it as an assistive device as many of their Yangon counterparts did. People in their regions were not accommodative as well. R46PFS’s story was one such troubling case where she was not away from her home for a long period of time, devoid of accessibility.

Fourth, the existence of differential Disabling experiences between urban and rural dwelling PWD were further evidenced by the fact that several respondents reported that they could not obtain necessary assistive devices (AT’s) in their respective rural regions. They indicated that they were forced to travel to Yangon to purchase a hearing aid or an artificial limb. As such, Yangon was the center of their “enabling” experience. Furthermore, as R41VMS claimed that it was only Yangon which had the better training facilities to learn computer technology or IT if they ever wanted to learn it. R43VMS couldn’t even afford to pursue his livestock farming aspirations for the lack of facilities in rural regions.

In conclusion, all the above instances demonstrate adequately in the researcher's opinion that the rural dwelling PWD face significantly stronger Disabling experiences as compared to the urban dwelling PWD. The evidence was sufficient to show that most of such rural dwellers aspired to move to Yangon in the future in order to live their lives more independently. The interesting inferences that should follow in showing the apparent differentiability are concerned with the solutions available to bridge the found differences. As discussed in chapter one of this study, it is the researcher's conviction that ICT-based individual level solutions such as mobile phone apps may not be adequate to address a political economic issue such as urban versus rural differentiability of the experience of Disability.

5.2 Disabling Experiences Associated with Employment Mismatch

Section 4.2 offered evidence of a fundamental mismatch between the desired and available careers for the PWD living in Myanmar. The starting point towards this claim was based upon the general discontent found regarding "massaging" as a professional career for the PWD. This discontent was observed across all types of Disability, although considerably fewer physically impaired individuals engaged in massaging. Many respondents who shared their discontent pointed out that the general public at large, including their own kin, believed that PWD are only capable of performing a good massage.

This finding was reinforced in Section 4.2.1: either PWDs' family members or special education teachers pushed the PWD towards a career as a masseuse. Hence, it appears there are large gaps in proper "career guidance" available to the PWD. Due to the

non-availability of proper career guidance and the lack of proper training facilities (which will be discussed later), most of those PWD found themselves in a helpless position where they have only acquired skills to be a masseuse, which make them utterly non-competitive in the job market. Irrespective of the determinants for the choice of their careers as a masseuse, it is important to note that they nonetheless despise massaging as a profession.

Their general discontent with the occupation of masseuse motivated the PWD to build future aspirations that transcend the stigmatization of their current careers. As discussed in section 4.2.2, many of the PWD aspired to work in other fields, with some PWD desiring to become artists, others to be versatile in IT and technology related careers, and others to become entrepreneurs and own their own businesses. In congruence with the discussion in 5.1, most of these aspirations were closely tied up with Yangon. Given the general feelings of saturation and discontent with their traditional careers (massaging), most of the PWD aspired to become “someone else” in the future. They considered being a masseuse itself a Disabling experience due to the lack of other career identities such that masseuse and Disabled seemed to be synonymous terms referring to the same person. Individuals like R41VMS saved money earned from his massaging job to pursue his passion at a later point in his time; however, he was in a stalemate at this time.

Section 4.2.3 presented evidence about those PWD who are already successful in alternate careers. Some of them were entrepreneurs who owned beauty salons. Others were painters, sewers and tailors, or professional sportsmen. One feature in many of these

alternate careers is that they are mostly non-sophisticated, less technologically-driven, and traditional careers. One might claim that they lack any significant attraction for others who are engaged in massaging to shift over to these professions. However, it is argued that their courage to break out of the vicious cycle of massaging and becoming successful in their own respective choices should be accredited with what it deserves in comparison to those who are still stuck with massaging.

The “stuck-ness” in the massage profession is determined by many factors, although identifying such determinants was not an explicit objective of this study. This study attempted to demonstrate a fundamental “stuck-ness” or a mismatch between what PWD desire and what they actually do. This study also attempted to show that this “stuck-ness” is not primarily due to the personal choices of the PWD, but rather is due to various overarching political economic determinants discussed as “macro dimensions” below in section 5.3. Apart from the already-known barriers to employment in Disability literature, such as lower salaries and work-place discrimination, the most influential barrier seems to be the lack of skills-development and training facilities. This study demonstrated the existence of “training deficit” for the PWD, as expressed through the interviewees’ narratives. The existence of such a training deficit contributed to the PWD feeling “stuck” in the massage profession, as a majority of the concerned PWD lacked the essential skills to compete in the job market and obtain a suitable job outside that realm. Massage jobs were the only option available to the PWD given their low skill level.

Therefore, the lower pay scales for the PWD are also closely connected to the lack of skills. On the other hand, as an indication of a vicious cycle, there was no

adequate tertiary education to train them with newer skills such as IT, sewing, mechanical technologies, repairing skills and other applied technological skills. In this sense, the lack of a proper tertiary education system coupled with other discriminatory practices enhanced the “employment mismatch.”

5.3 Theoretical Implications: Micro and Macro Aspects of Disability

The qualitative evidence from the interviews supported the research hypotheses related to the micro and macro aspects of Disability. First, a differential Disabling experience between urban and rural dwellers was evident in the narratives. Second, the qualitative data provided support for the existence of a fundamental mismatch between the desired and available jobs for the PWD in Myanmar. By finding evidence for the above propositions, this study effectively demonstrates that “Disability” as a social problem is “two-fold.” The study further affirms that this “two-foldness”, or “dual nature” of Disability is comprised of micro aspects and macro aspects. The first category encapsulate the Disabling experiences caused by individual-level determinants that have micro-level solutions. These micro-level solutions are predominantly supplied by the emerging technologically driven, mostly ICT-based solutions such as mobile phone apps and other AT’s (Hurulle, Fernando, & Galpaya, 2018). This study establishes that “Disability” as a social problem is incomplete if the macro-level problems are not acknowledged and analyzed. The existence of such macro-level issues were found with evidence in attempting to gather information to answer the two main research questions of this study: urban versus rural differentials and employment mismatches. These are defined as macro-level issues due to the fact that they are determined not by individual-

level factors but by overarching political economic dimensions such as poverty and underdevelopment. Solutions for those macro-level issues should therefore be looked at, at the macro-level itself. In this way, because ICT-based technological solutions address only individual-level issues, they must be defined as only micro-level solutions. Thus, this study sufficiently establishes that the Disability question is “two-fold” containing both micro and macro aspects.

Apart from the above primary theoretical implication, three further secondary theoretical implications resulted from this qualitative study. All three occasions highlight three important phenomena that pertain to the Disability world in an underdeveloped context. First, in section 4.1.3, it was revealed that the rural dwelling PWD emphasized the importance of “attitudinal accessibility” among the general public as a determinative factor, especially if and when they preferred Yangon (i.e., urban) over rural living. In this sense, this study purports to emphasize that “public space accessibility” must not only be confined to “material accessibility” (both analog and digital); rather it should also consider the “attitudinal accessibility” of the public. It therefore follows that mere “material accessibility” might not indicate consummate public space accessibility if the “attitudinal” aspect is left out of Disability-related discussions and policy initiatives.

Second, as described in section 4.1.3, this study suggests that the PWD tended to remain in their foster homes because public space in the rural regions is inaccessible. Hence, these PWD experienced a graver level of what can be called a non-compulsive “home incarceration,” that is a direct result of the inaccessibility of public spaces by the PWD, which in turn necessitated or resulted in this “home incarceration.” Third, as

described in section 5.2, many PWD living in Myanmar found themselves to be in a situation of “stuck-ness” where they were unintentionally involved in an endless reproduction of limited career opportunities, in this case being confined to the massage occupations. This meant that the lack of adequate skills forced them to take massaging as a career, and the non-availability of adequate tertiary-level training facilities further tied them to a vicious cycle of massaging, lack of skills and lack of training.

5.4 Policy Implications

5.4.1 Urban vs Rural Differences in Disabling Experiences

Section 4.1 provided sufficient evidence to suggest that there were significant differences in the Disabling experiences between the PWD living in urban and rural areas of Myanmar. Thus, the Disabling experience was stronger and therefore more precarious for a Disabled person living in a rural region as compared to an urban dwelling Disabled person. The determinants for these differences can be economic, social and cultural, which was not the focus of in this study.

As stated by the rural PWD in Myanmar, it is better for a PWD to live in an urban area in order to lead a more independent and prosperous life. In view of this, policy makers should pay attention to these differences when drafting and shaping the Disability Policy. The overall underdeveloped context of Myanmar must be reaffirmed when accounting for these differences. Therefore the policy implications discussed herein are essentially confined to the Disability policy drafting of underdeveloped countries.

Two possible solutions could follow. First, policy makers can focus on shaping the Disability policy towards improving the internal migration capabilities for the rural

dwelling PWD to move to urban areas in pursuit of more “materially and attitudinally accessible” lives. Second, policy makers can make a concerted effort in urbanizing the rural areas for better accessibility. However, in paying attention to the overarching political economic deadlocks facing countries like Myanmar, where economic development is closely tied with international trade policies, global economic cycles, regional politics and national priorities (Mitra, Posarac, & Vick, 2011), the first option seems more viable in the short-run than the second option. That is, rather than postponing the Disability question forever until economic development is achieved, as often happens, the policy makers can take effective steps to attract the Disabled population across the rural regions to the cities and urban spaces. In this sense, the Disability policy in an underdeveloped setting should first implement what they are currently capable of implementing and strive to bridge the differential experiences in an effective way. The best way forward in this direction is to facilitate the internal migration of Disabled population to urban areas for better lives.

The main drawback of such an “internal migration policy” for the Disabled would be the uprooting of the familial bonds that the rural PWD are generally used to and on which they depend. However, as discussed earlier, PWD often wish to get rid of this familial dependence. The question then would be how to execute a smooth internal migration, given the fact that it is perhaps better off for a Disabled person to live in a city than in a rural underdeveloped area. Unfortunately, this study does not possess sufficient evidence to prescribe how such a “smooth and gradual internal migration” should take place. Convinced of the fact that such a migration is the correct direction that a

developing country should take, further research on this topic should proceed to find ways and means to accomplish it.

5.4.2 Employment Mismatches

Section 4.2 provided sufficient evidence to support the hypothesis that there exists a fundamental mismatch between the desired and available jobs for the PWD living in Myanmar. As discussed in 5.3, this mismatch corresponds to many of the overarching political economic deadlocks constraining Myanmar as a country at large. On the other hand, it is difficult to imagine the existence of adequate individual-level ICT solutions for this problem.

In terms of policy, many advocates for employment rights for the Disabled confine their reach to the traditional categories such as work-place discrimination issues and lower pay scales. Such rights-based approaches largely ignore the structural determinants that cause such discriminatory practices in the first place. For example, the inadequacy of tertiary educational facilities across Myanmar is one such structural determinant that causes the vicious cycle of massaging to continue due to the lack of skills-development. Therefore, a Disability policy priority in an underdeveloped context is to focus their attention and disperse public funds for the development of such tertiary education facilities across all regions. Productive Public-Private-Partnerships (PPP) could be negotiated in this endeavor so that investments target the rural regions of the country in particular. Such skills-development at a regional level can also support the “smooth internal migration” of PWD to urban areas, as discussed in section 5.4.1.

6. LIMITATIONS OF THE STUDY

The limitation of this study concerning the research questions is that the aforementioned political economic deadlocks are analyzed in reference to only two aspects: the urban versus rural differences and employment mismatch. It is needless to state that such determinants can and must be analyzed through various other aspects, such as industrialization, training deficiencies, education, access to social services, and health care accessibility, to name a few considerations.

On the other hand, the urban versus rural differences are also analyzed in limited means by way of exploring such differences in public infrastructure and public transport accessibility. This question can also be looked at from other angles such as access to social services, citizenship participation, and other factors. Further, this study can be extended in that employment mismatches can be analyzed at much deeper level by parsing out various labor market deficiencies and how the labor market responds to Disability at large.

This study did not include individuals with intellectual and mental disabilities due to anticipated communication challenges, and a lack of skilled therapists on the team who could conduct research without causing distress. Further, not considering the mildly and moderately Disabled individuals for the sample, proves to be another limitative character in this research. Future research should focus on this population of PWD.

Even among respondents with visual, hearing and physical disabilities, a key limitation in the research is the non-generalizability of the results. The selection of respondents was done purposively according to a set of clearly defined guidelines in

terms of types of disability, severity of disability, gender, age, socio-economic status (SES) and employment status. The non-generalizability of the results is thus a trade-off for obtaining a variety of views in the absence of random sampling methods.

Not all the PWD who were approached or screened for the study agreed to participate in the research. Common reasons for not participating in the study were that the PWD were busy with their own tasks, were not interested in participating in research, or did not perceive themselves as being a person with disabilities. Table 4 shows that visually Disabled respondents were comparatively more likely to refuse to participate in the research than PWD with other Disabilities; PWD in Yangon were less likely than PWD in other areas to participate in the research.

Table 4: Refusals to participate in the research

Location	Type of disability			Total
	Visual	Hearing	Physical	
Yangon	10	5	7	22
Mandalay	5	1	2	8
Shan	3	1	2	6
Ayeyarwady	4	0	1	5
Total	22	7	12	41

As with many types of demand-side research, disclosure bias, where respondents do not reveal certain behaviors, is a possibility, particularly in FGDs where multiple respondents are in the room. The team attempted to minimize disclosure bias by keeping the FGDs as homogenous as possible in terms of gender, age and socioeconomic class.

7. CONCLUSION

This study strongly urges researchers, policy makers and activists to recognize that Disability is a “two-fold” social problem, comprised of both micro and macro dimensions. The micro aspects refer to the individual-level, day-to-day Disabling barriers that require micro-level solutions. Most of these Disabling barriers are increasingly diluted by the highly effective technological solutions that continue to emerge. Mobile phones in their assistive function prove to be one of the most effective devices that can greatly help the poorer PWD living in the developing countries.

Macro aspects refer to the national-level overarching Disabling barriers that result from political economic constraints affecting the developing countries at large. These barriers must be addressed in a different manner from that used to address the individual-level barriers. Most of these barriers require higher level policy interventions that are closely tied to the development priorities of the country. However, recognizing that such macro-level Disabling barriers exist is an important first step towards addressing them in an effective way.

Therefore, Disability research should not only focus on the narrower individual-level barriers. Rather, further research should also focus on the aforementioned macro-level barriers. Accordingly, this study helped to stipulate that developing nations should facilitate “internal migration” of PWD to urban areas for enabled and independent living; and prioritize an investment in tertiary-level training programs for the skills-development of the PWD across rural regions of the country. Such policies would help to reduce the dualistic nature of Disability described by the participants in this study.

APPENDICES

Appendix 1: Characteristics of FGD Participants

Location	Disability type	SEC*	ICT use	Employment <i>at least:</i>	Gender	Age	Severity of impairment
	<i>Definitions according to 2014 Census questions</i>	<i>Definitions as per Terms of Reference</i>	<i>U = Users</i>	<i>E = Employed</i>	<i>M = Male</i>		<i>LD = lot of difficulty</i>
			<i>NU = Non-users</i>	<i>Un = Unemployed</i>	<i>F = Female</i>		<i>C = cannot do at all</i>
				<i>AT LEAST:</i>			<i>AT LEAST</i>
Yangon	PILOT: 2 Mobility, 2 Hearing & 2 Visual	A/B	3U / 3NU	3E / 2Un	6M	40+	1 LD / 1C
	Hearing	A/B	4U	2E / 2Un	4M	15-24	1 LD / 1C
	Physical	A/B	6U	3E / 2Un	6M	40+	1 LD / 1C
	Visual	A/B	6U	2E* / 2Un	6M	25-39	1 LD / 1C
	Hearing	C/D/E	4U	2E / 2Un	4F	40+	1 LD / 1C
	Visual	C/D/E	6NU	2E* / 2Un	6F	15-24	1 LD / 1C
	Visual	C/D/E	2U	2Un	2F	15-24	1C
Ayeyarwady	Visual	C/D/E	6U	2E* / 2Un	6F	40+	1 LD / 1C
	Hearing	C/D/E	4NU	2E / 2Un	4M	25-39	1 LD / 1C
	Physical	A/B	6U	2E / 2Un	6F	25-39	1 LD / 1C
	Visual	C/D/E	6U	2E* / 2Un	6F	15-24	1 LD / 1C
Mandalay	Visual	A/B	6NU	3E* / 2Un	6M	40+	1 LD / 1C
	Hearing	C/D/E	4U	2E / 2Un	4F	25-39	1 LD / 1C
	Physical	C/D/E	6U	2E / 2Un	6M	15-24	1 LD / 1C
Shan	Hearing	A/B	4U	2E / 2Un	4F	15-24	1 LD / 1C
	Physical	C/D/E	6NU	2E / 2Un	6F	25-39	1 LD / 1C
	Visual	C/D/E	5U	2E* / 2Un	5M	25-39	1 LD / 1C

* *At least one should not work as a masseuse*

Source: (Hurulle, Fernando, & Galpaya, 2018)

Appendix 2: Discussion Guide Used for the Field Study

LIRNEasia/MIDO ICT accessibility for PWD in Myanmar–Discussion Guide ICT users		
Key theme	Question	Notes to moderators
Introduction	Could you tell us something about yourself?	<i>Look for name, where they are from, nature of education /employment, any indication of disability in this section</i>
	Please tell us about your family and friends	<i>Probe for who the chief wage earner is, his/her occupation, and who the members in the family are, if anyone else has a disability. Try to identify if they too have disabilities</i>
Living with a disability/analog complements	Can you tell us about your disability, and how you acquired it?	<i>Look out for if the disability was something they had at birth, or if they acquired it subsequently. It would be good to see if it has progressively worsened. These could give an indication of their understanding of a life without disability</i>
	Do you face any challenges in your day-to-day life because of your disability? If yes, what are these challenges?	<i>Does not have to be ICT-focused.</i> As per the FGDs conducted so far, the key areas that came across are, Visual: Transport, (unsure which bus to take, how to know which stop they're at) Education (taking exams, retention of subject matter) Hearing: Transport (inability to communicate on prices), Shopping (inability to understand prices), Health (waiting in doctors queues) Mobility: Transport (transport inaccessible) Education (buildings inaccessible)
	How do you think these challenges can be overcome?	<i>Look for mention of people helping, vs the use of assistive devices. Note the differences in the types of assistive devices, and how they are used</i>
Assistive technologies (AT)	Do you use any particular types of assistive technologies to help you overcome these challenges? What is the type of assistive technology you use?	<i>Customize according to type of disability. Need not be enabled by ICTs. Standard walking sticks etc. fine AT for blind include: Screen reader, Audio text, Braille writer, Voice recognition, GPS service AT for deaf include: Hearing Aid, Cochlear implants, Microphones AT for mobility include: GPS service</i>
	To what extent has it helped you to overcome the challenge at hand?	

Computer ownership and use	Do you know how to use a computer?	
	Where did you start learning it? When did you start learning?	<i>As the answer is most likely school- it may be good to see which grade they learnt</i>
	What are the programmes they use?	<i>Do they use the Internet? If yes, what do they do? Do they use Word, PPT, Excel, and Photoshop? Probe to find out proficiency</i>
	For what purpose do you use this programmes?	<i>Look for language on keeping in touch with others, education, employment etc...</i>
	Do you only use this in the classroom, or do you have access to it outside the scheduled classroom times as well?	
	Did you have to learn any additional skills/features due to your disability?	<i>ex: learning to use accessibility features for the visually Disabled)</i>
	Do you have any trouble using any particular features in these devices? Are you able to do some tasks on these devices and not others?	
	Have you benefitted in any way from the use of computers/phones?	<i>Look for mention of assistive technologies Look for language on keeping in touch, education, employment, income, disaster risk reduction.</i>
	Have you experienced any drawbacks from using computers/phones?	<i>Look out for wording on disability specific issues, online harassment</i>
	<p>For those in employment Do you use the computer for your employment? Have this helped you do your job better?</p> <p>For those not in employment What is your dream job? Do you think the use of a computer can help you do your job better?</p>	
Mobile ownership and use	Do you use a mobile phone? Do you own a mobile phone?	<i>See if they use a smartphone/feature phone for mobile phone</i>

	<p>If yes, What made you start using mobile phones? Did friends/family use mobile phones? Did this push you to start using? When did you start using it?</p>	<p><i>Look to see whether the motivation for start of use was peer pressure (peers here could even mean but not limited to other Disabled colleagues) or personal conviction of use.</i></p>
	<p>Did you have to learn any additional skills/features due to your disability?</p>	<p><i>Ex: learning to use accessibility features for the visually Disabled</i></p>
	<p>Which apps do you use? Are there any specific apps that help you overcome the challenges of your disability?</p>	<p><i>Do they use Facebook only? Do they use other messaging apps?</i></p>
	<p>Do you have any trouble using any particular features in these devices? Are you able to do some tasks on these devices and not others?</p>	
	<p>What do you use your mobile phone to do?</p>	<p><i>Look for language on keeping in touch with others, education, employment, income, disaster risk reduction</i></p>
	<p>Have you benefitted in any way from the use of mobile phones?</p>	<p><i>Look for mention of assistive technologies Look for language on keeping in touch, education, employment, income, disaster risk reduction.</i></p>
	<p>Have you experienced any drawbacks from using phones?</p>	<p><i>Look out for wording on disability specific issues, online harassment</i></p>
	<p>For those employed Do you use mobile phones for your employment in any way? Has it had any impact on your performance/outcomes?</p> <p>For those unemployed What is your dream job? Do you think the use of a computer can help you do your job better?</p>	<p>Honing in on education/employment, from perceived benefits/drawbacks</p>

Social networking/communication with friends and family	Do you use ICTs to keep in touch with your family and friends? Which features/apps do you use to do this? Has this helped you keep in touch with friends/family?	Honing in on keeping in touch with others
Cost	How much do you spend each month on top-ups?	<i>Probe to see if this is deemed expensive/inexpensive. Also to see if they feel their use due to their disability has any impact on the amount they're paying for top-ups (ex: do the hearing Disabled need to spend more on top-ups if they have to video call each other to communicate via sign language?).</i>
Quality of service experienced	Have you experienced any trouble getting signal, or with internet speeds, if you go online?	
Content/local language	Have you ever struggled to access content in the local language?	<i>This could be most relevant for those with visual disabilities- given the lack of a local language TTS. See if the issue is due to their disability, or if it's a more general comment.</i>
Solutions	If you were to imagine a life in which you were able to live independently despite your disability, what would you see? What would be different from your life today?	<i>Look for mention of ICTs, but again, does not be limited to this. May be interesting to see if the preceding conversation on ICTs has an impact on this response.</i>
	Do you see the computer and mobile phone as a means of solving the problems you face?	<i>Ref Q at beginning of questionnaire</i>
	Do you think anyone should intervene to help achieve these? If yes, who? What do you think should be done by each actor (for each aspiration)	<i>For the who, look out for government, telcos, mobile handset importers, DPOs etc. Probe on what they think should be done. Good to get solutions for both ICT accessibility problems, as well as general disability probs. Ideally they may see ICTs as a means of helping their larger issues, but this is something that should come from them, and not because we're probing.</i>

Appendix 3: Ethical Guidelines Followed in this Study

Those individuals who accepted to participate in the research provided consent to participate in the research, to have the conversations recorded, and to have their photographs taken.

The following measures taken to obtain consent for each type of disability:

1. Visual: The interviewer read the consent statement – slowly and carefully – to each participant in advance of the focus group. Any parts, which an individual did not understand, were repeated. If anyone was unable to sign the document, their consent was recorded with a thumb print.
2. Hearing: At the time of reading the consent form, recruiters ensured that a person proficient in sign language was able to translate any participant questions and field team answers.
3. Physical: Written consent forms were provided, after having had the terms fully explained. Verbal consent was obtained from those who were physically unable to sign the document or provide a thumbprint.

According to ESOMAR global research (Hurulle, Fernando, & Galpaya, 2018) codes for studies with PWD, recruiters: (i) took into account the mental wellbeing of the person involved, when considering what subjects may or may not be considerably dealt with in an interview. (ii) ensured that a responsible caregiver (apart from the interviewer) remains close at hand while the interview is carried out, where necessary. Parental consent was obtained from those below the age of 18.

Appendix 4: Excerpts from Request for Proposal (RFP) and Contract between LIRNEasia and Kantar Public on Ethical Guidelines

1. Clause 3.3.3. of RFP titled “Data collection, entry and processing”

- a)** The Consultant shall obtain all necessary local permissions and authorizations to conduct field work in selected areas.
- b)** The Consultant holds the responsibility in adhering to the consent and privacy requirements in the ethics of survey research, taking and sharing photographs, and handling respondent identification and contact information. The Consultant shall obtain respondent’s informed consent to participate in the research. The wording for this shall be provided by the Client, and will include separate permission to photograph the respondent if he/she allows. If the respondent is unable to physically sign the consent form for any reason, alternative methods of obtaining proof of informed consent may be discussed and used as long as the Client approves. The method of obtaining informed consent, taking into account the impairments of the respondents, should be detailed in the Technical Proposal. Upon completion of the field research, the Consultant shall provide the Client with proof of informed consent for each respondent. Upon completion of the final deliverable to the Client, the Consultant shall not retain in their database (electronic or paper-based) any personally identifiable information of any respondent.
- c)** The Consultant will recruit qualified respondents, except in the case of the key informant interviews with influencers in the disabled community– the Client will carry out the recruitment for the latter. The Consultant shall, for all three types of protocols, administer the research instruments in the languages and dialects that would enable the

respondents to engage in discussion with ease, as appropriate. This may imply having qualified moderators/interviewers fluent in the local language and context, and the use of aids such as sign language interpreters. Steps taken to ensure that the respondents are able to participate in the focus group, taking into consideration their disabilities, should be highlighted in the Technical Proposal. 11

d) The research fieldwork shall be conducted by field personnel who have undergone training in Basic Code of conduct of Field Personnel specific to the research instruments being used in this Study.

e) Irrespective of the recruiter, the Consultant shall provide the venue for the protocols to be conducted, obtain permissions/ethical clearance for the research, obtain audio/video recordings, and provide the Client with transcripts as appropriate.

f) The Consultant shall also record all qualitative protocols, usually in audio format, though video recordings may be made if respondents give permission.

2. Clause 6 titled “Ethical Standards” of the Contract between LIRNEasia and Kantar Public

Before an individual becomes a participant in the research detailed in **Appendix A, “Description of Services,”** (a “Subject of Research”), he/she shall be notified of:

- a) The aims, methods, anticipated and potential hazards of the research, if any;
- b) His/her right to abstain from participation in the research and his/her right to terminate at any time his/her participation; and
- c) The confidential nature of his/her replies

No individual shall become a Subject of Research unless he/she is given the notice referred to in the preceding paragraph and provides a freely given consent that he/she agrees to participate. No pressure or inducement of any kind shall be applied to encourage the individual to become a Subject of Research.

Proof of notification of the above (6a-6c) will be obtained by way of obtaining the Subject of Research's signature or for illiterate Subjects of Research some other suitable way determined in consultation with the Client. Original documentation of such proof may be provided to the Client upon completion of field work.

The identity of individuals from whom information is obtained in the course of the research shall be kept strictly confidential. At the conclusion of the term of the Contract, any information that reveals the identity of individuals who were Subjects of Research shall be destroyed unless the individual concerned has consented otherwise in writing. No information revealing the identity of any individual shall be included in the final report or in any other communication prepared in the course, or as a result of the research, unless the individual concerned has consented in writing to its inclusion beforehand.

Where Subjects of Research are to be photographed, prior consent from them will be obtained and documented.

Where contact information is to be obtained and recorded from the Subjects of Research, prior consent from the Subjects of Research to record this information on behalf of the Client will be obtained and documented. Such contact information shall be treated as strictly confidential.

When children are involved in the research, in addition to the requirements set out in the preceding paragraphs being complied with, children shall not be allowed to participate unless:

- a) Their parents or legal guardians have been counseled with respect to the children's participation in accordance with paragraphs 6(a), 6(b) and 6(c); and
- b) Their parents or legal guardians have given their free, explicit, and informed consent to the participation of the children in the research.

Parents or legal guardians shall have the right to withdraw their children from the research at any time.

REFERENCES

- Anders, A. (2013). Foucault and "the Right to Life": From Technologies of Normalization to Societies of Control. *Disability Studies Quarterly*, 33(03).
- Barton, R., Robinson, T., Llewellyn, G., Thorncraft, K., & Smidt, A. (2015). Rural and Remote Perspectives on Disability and Mental Health Research in Australia: 2000–2013. *Advances in Mental Health*, 13(1), 30-42.
- Beresford, P. (1996). Poverty and Disabled People: Challenging Dominant Debates and Policies. *Disability & Society*, 11(4), 553-568.
- Brett, J. (2002). The Experience of Disability from the Perspective of Parents of Children with Profound Impairment: Is it time for an Alternative Model of Disability? *Disability & Society*, 17(7), 825-843.
- Celik, E. (2017). The Role of CRPD in Rethinking the Subject of Human Rights. *The International Journal of Human Rights*, 21(7), 933-955.
- Dahrendorf, R. (1959). *Class and Class Conflict in Industrial Society*. Stanford University Press.
- Darcy, S., Maxwell, H., & Green, J. (2016). Disability Citizenship and Independence through Mobile Technology? A Study Exploring Adoption and Use of a Mobile Technology Platform. *Disability & Society*, 31(4), 497-519.
- Department of Social Welfare. (2010). *Myanmar National Disability Survey*. Yangon: Ministry of Social Welfare, Relief and Settlement.
- Don, Z., Salami, A., & Ghajarieh, A. (2015). Voices of Girls with Disabilities in Rural Iran. *Disability & Society*, 30(6), 805-819.
- Flynn, S. (2017). Engaging with Materialism and Material Reality: Critical Disability Studies and Economic Recession. *Disability & Society*, 32(2), 143-159.

- Gething, L. (1999). Sources of Double Disadvantage for People with Disabilities Living in Remote and Rural Areas of New South Wales, Australia. *Disability & Society*, 12(4), 513-531.
- Goodley, D. (2011). *Disability Studies: An Interdisciplinary Introduction*. London: SAGE Publications Ltd.
- Graham, L., Moodley, J., & Selipsky, L. (2013). The Disability–Poverty Nexus and the Case for a Capabilities Approach: Evidence from Johannesburg, South Africa. *Disability & Society*, 28(3), 324-337.
- Grech, S. (2009). Disability, Poverty and Development: Critical Reflections on the Majority World Debate. *Disability & Society*, 24(6), 771-784.
- Grech, S. (2011). Poverty and Disability. *Disability & Society*, 26(7), 888-891.
- Grossman, B. R., & Magaña, S. (2016). Introduction to the Special Issue: Family Support of Persons with Disabilities Across the Life Course. *Journal of Family Social Work*, 19(4), 237-251. doi:<http://dx.doi.org/10.1080/10522158.2016.1234272>
- Harpur, P. (2012). Embracing the New Disability Rights Paradigm: The Importance of the Convention on the Rights of Persons with Disabilities. *Disability & Society*, 27(1), 1-14.
- Hughes, B. (2009). Disability Activisms: Social Model stalwarts and Biological Citizens. *Disability & Society*, 24(6), 677-688.
- Hurulle, G., Fernando, D., & Galpaya, H. (2018). *Enabling the Disabled: the role of ICTs in the lives of persons with disabilities in Myanmar*. Colombo: LIRNEasia. Retrieved from lirneasia.net/disability
- International Labor Organization. (2017). *ILO Guide to Myanmar Labor Law*. Yangon: International Labor Organization.
- Koca-Atabey, M. (2013). A Personal Validation of the Social Nature of Disability: Different Environments, Different Experiences. *Disability & Society*, 28(7), 1027-1031.

- Lazar, J., & Stein, M. A. (Eds.). (2017). *Disability, Human Rights, and Information Technology*. Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Levitt, J. M. (2017). Exploring how the Social Model of Disability can be Re-Invigorated: In Response to Mike Oliver. *Disability & Society*, 32(4), 589-594.
- LIRNEasia. (2018). Retrieved from LIRNEasia's Official Website:
<https://lirneasia.net/what-we-do/>
- Maart, S., Eide, A. H., Jelsma, J., Loeb, M. E., & Ka Toni, M. (2007). Environmental Barriers Experienced by Urban and Rural Disabled People in South Africa. *Disability & Society*, 22(4), 357-369.
- Macdonald, S. J., & Clayton, J. (2013). Back to the future, disability and the Digital Divide. *Disability & Society*, 28(5), 702-718.
- Meager, N., & Hill, D. (2006). *UK National Public Policy Initiatives and Regulations Affecting Disabled People's Labor Market Participation*. Institute of Employment Studies, UK.
- Michailakis, D. (2001). Information and Communication Technologies and the Opportunities of Disabled Persons in the Swedish Labor Market. *Disability & Society*, 16(4), 477-500.
- Ministry of Communication and Information Technology. (2015). Mobile Penetration Reaches Half the Country. Yangon, Myanmar.
- Ministry of Immigration and Population. (2014, March/April). The 2014 Myanmar Population and Housing Census. Myanmar.
- Mitra, S., Posarac, A., & Vick, B. (2011). *Disability and Poverty in Developing Countries: A Snapshot from the World Health Survey*. The World Bank, Human Development Network (HDNSP). Social Protection & Labor.
- Naslund, R., & Gardelli, A. (2013). 'I know, I can, I will try': Youths and Adults with Intellectual Disabilities in Sweden using Information and Communication Technology in their Everyday Life. *Disability & Society*, 28(1), 28-40.

- Oliver, M. (2013). The Social Model of Disability: Thirty Years on. *Disability & Society*, 28(7), 1024-1026.
- Samararatne, D. W., & Soldatic, K. (2015). Inclusions and Exclusions in Law: Experiences of Women with Disability in Rural and War-Affected Areas in Sri Lanka. *Disability & Society*, 30(5), 759-772.
- Shakespeare, T. (2016). Disability and Poverty in the Global South: Renegotiating Development in Guatemala. *Disability & Society*, 31(8), 1153-1154.
- Simpson, J. (2009). Inclusive Information and Communication Technologies for People with Disabilities. *Disability Studies Quarterly*, 29(1).
- Taub, D. E., McLorg, P. A., & Bartnick, A. K. (2009). Physical and Social Barriers to Social Relationships: Voices of Rural Disabled Women in the USA. *Disability & Society*, 24(2), 201-215.
- UNESCO. (2013). *The ICT Opportunity for a Disability-Inclusive Development Framework*.
- Vick, A. (2013). The Embodied Experience of Episodic Disability among Women with Multiple Sclerosis. *Disability & Society*, 28(2), 176-189.
- Watling, S. (2011). Digital Exclusion: Coming Out from Behind Closed Doors. *Disability & Society*, 26(4), 491-495.
- Zhuang, K. (2016). Inclusion in Singapore: a Social Model Analysis of Disability Policy. *Disability & Society*, 31(5), 622-640.