Universal Design Approach For An Accessible Built Environment Through Legislation For Effective Implementation In Malaysia

Name:
Nur Amirah Abd. Samad
(PBE163003)
Greenovation Research Group
Faculty of Built Environment

Supervisor:
Assoc. Prof. Dr. Ismail Said
Faculty of Built Environment
Universiti Teknologi Malaysia (UTM)

Proposal Defense
Content

- Introduction
- Issues and Statement of Problem
- Research Gap
- Research Aim and Objectives
- Research Questions
- Literature Review
- Scope and Parameters of Research
- Theoretical Framework
- Research Methodology
- Significance of Research
- Research Gantt Chart and Milestone
- Major References
Introduction

This research explore the current situation of accessibility in Malaysian built environment and further investigate alternatives and recommendations for an effective implementation to intensify accessibility in the built environment, as to what is prevalent, shows that there is a lack of seamlessness in the access.

Accessibility in the built environment is often associated with Persons with Disabilities (PwDs) as it distinguishes the rights of PwDs towards gaining access to the physical environment and their discrimination of equal participation in the society.
Introduction

- The significant global scene was identified when the Americans with Disabilities Act was being conferred in US in 1990 by establishing a comprehensive legal framework in protecting Persons with Disabilities (PwDs) from discrimination in employment and access to services and facilities for equal opportunities as a civil rights issue (Kose, 2010; Manley, 1996).

- The movement also started the Disability Discrimination Act 1995 as a rights based social inclusion for PwDs in the United Kingdom and Japanese with Disability Act in 1993 an upgrade from Japan old disability law.

- United Nations (UN) initiation of United Nation International Year of Disabled Persons in 1982 followed by the International Decade of Disabled Person from 1983 to 1992 (Kose, 2010; Parker, 2001) where it has effected advocacy issues in Asian countries in the Asia Pacific region under the United Nation Economic and Social Commission of Asia Pacific (UNESCAP).
Introduction

Asian countries in the Asia Pacific region are members of the United Nation Economic and Social Commission of Asia Pacific (UNESCAP).


The continuation for the Asian and Pacific Decade of Disabled Persons, 2nd decade 2003 – 2012


The ‘Incheon Strategy’ to “Make the Right Real” for Persons with Disabilities in Asia and the Pacific. The Incheon Strategy outlined 10 goals, 27 target and 62 indicators but only on Goal no. 3 that enhances access to the physical environment, and public transportation besides knowledge, information and communication.

Malaysia is currently adopting the ‘Incheon Strategy’ to “Make the Right Real” for PwDs in implementing relevant national laws and legislations.

(Rahim, Samad, & Rahim, 2015; Takayama Declaration on the Development of Communities-for-All in Asia and the Pacific, 2009, Incheon Strategy to “Make the Right Real”, 2014)
The perspective of disability studies where scholars argued that what is called physical or mental `disability' is not a person attribute but a complex conditions created by the social environment.

From `social-political perspective' disability is seen as a `sophisticated form of social oppression'. Thus, PwDs being social minorities who have been systematically discriminated against in all areas of life.

Attitudes to PwDs have improved but reluctance among architects & owners to invest in facilities for user friendly because effect cost or aesthetic quality.

In European, UK & Ireland, comprehensive and enforceable access legislation is to promote and enable independent living, safety and accessibility.

Anti-discrimination legislation will only make sense in countries where equality are pervasive.

Discrimination surface where local authority officers tend to conceive disability, medically rather than environmentally being impairment as the problem to be overcome rather than the social or environmental barriers. (J. Harrison & Dalton, 2015; Imrie, 2000; Imrie & Kumar, 1998)
Issues and Problem Statement

Regional Concerns

Everyone is likely to experience the misfit between themselves and the environment at some time in their life.

In ASEAN countries, the statistics of population for the disabled people and elderly in Asia and the Pacific region are reported to be increasingly rapid with an estimation of 40% of total world population. The pressure of demographic and changing of cultural patterns leads Elderly in Japan & Singapore to be living apart from their families independently. (Asiah Abdul Rahim, Zen, Samad, Rahim, & Badhrulhisham, 2014; J. D. Harrison, 2001; Kose, 2010)

Local Concerns

Accessibility of built environment in Malaysia has been an ongoing issue as legislation implementation and enforcement for PwDs are not well integrated and implemented. (Kamarudin et al., 2012; Kadir & Jamaludin, 2012; Maidin, 2012; Soltani, Sham, Awang, & Yaman, 2012; L. M. Yusof & Jones, 2016)

Many have increasingly questioned the effectiveness of these legislation and standards with disabilities in Malaysia as being unsatisfactory or ineffectual in their implementation and the design outcomes achieved.

Discrimination act affects civil rights of social participation and equal opportunity. As in Asia and the Pacific Countries where ethnicity and race are the most diverse, there are no discrimination act but they developed Disability act or similar in order to achieve equal opportunity for Persons with Disabilities.
GLOBAL - PEOPLE WITH DISABILITIES (PWDS)

- Estimated 15% of the world's population has a disability
- More than ONE BILLION people with special needs worldwide
- An estimated 80% live in developing countries

ELDERLY IN MALAYSIA (60+)

- Population of 60+ in 2010 is 7.9%
- Population projection in 2040 will be 16.3%

PEOPLE WITH DISABILITIES (PWDS) IN MALAYSIA

- There are 366,178 PwDs registered with the Department of Social Welfare
- 35.0% - learning disabilities (autism is the highest %)
- 34.0% - physically disabled
- 9.0% - visually impaired
- 8.0% - hearing impaired
- 8.0% - mental / psychosocial disabilities
- 1.0% - speech disabilities
- 5.0% - other type of disabilities / multiple disabilities

(Source: Jabatan Kebajikan Masyarakat [JKM] Malaysia, 2016)

(Source: WHO Report, 2011)
Accessibility can be achieved by strict implementation at Local Government, but how it should be implemented and enforced, has been debated on its practicality between academia and professional practices.

This ‘Connectivity’ often disappears while integrations of the old and new development are not monitored as jurisdiction issues and building ownership. Barriers and obstructions were caused by indiscipline and ignorance of regulations. Although building laws require significant elements to be accessible, it is more difficult to legislate.

Research Gap

There is a lack of awareness and accessibility design knowledge among Architects, Planners and Designers as it is a design concept for a minority group. Misconception about Universal Design is perceived as a design template for PwDs and contributes to the slow pace of acceptance and implementation in Malaysian practices.

The facts that the journey, route and connectivity of the access not being seamless, creates loopholes in the integration of planning and design aspect, as well as implementation and jurisdiction aspect. A clinic for instance, may be accessible and usable, whereas the road system is the responsibility of another authority, which operates in a completely different way.
Figure: Schematics Diagram of Universal Design Application in the Built Environment. (Source: Asiah Abdul Rahim, 2010)
Research Aim and Objectives

**AIM**

This research attempts to formulate an implementation strategy framework of accessibility and seamless connectivity through the application of Universal Design in Malaysian built environment.

**RO1**

- **To identify and distinguish** the legislations related to Persons with Disabilities (PwDs) and accessibility in the built environment in Malaysia.

**RO2**

- **To investigate** implementation framework of other developed and developing countries that has regulated their legislation, policies, and standards and how they overcome problems and enforcements.

**RO3**

- **To formulate** a recommended implementation framework on strategy measures linking available legislative documents and standards to ensure enforcement for accessibility in the built environment.
Research Questions

RQ1 • What are the legislations related to Persons with Disabilities (PwDs) regarding provision of accessibility in the built environment in Malaysia?

RQ2 • How implementation framework of other countries that has regulated their legislation, policies, and standards could be adopted in Malaysia?

RQ3 • How developed countries overcome problems and enforce implementation in achieving their accessible physical built environment?

RQ4 • Is there any available local framework of accessibility implementation model that has been implemented and enforced?

RQ5 • Does perception, awareness, and understanding of Universal Design reflects in the building design and is well interpreted by architects, planners, designers and authority officers?
Universal Design is “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”
(Ronald Mace, 1998; Center for Universal Design, U.S.A., 1994)

Accessibility refers to the characteristic that products, services, and facilities can be independently used by people with a variety of disabilities. Accessibility as a design concern has a long history, but public awareness about accessibility increased with the passage of legislation such as the Americans with Disabilities Act (ADA) [1], which mandated that public facilities and services be fully accessible to people with disabilities.

Both accessible and universal design are concerned with addressing the needs of users beyond those considered to be "average" or "typical."
(© 2016 DO-IT, University of Washington)
Disability (UNCRPD, 2006):
‘Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.’

Persons with Disabilities Act 2008 state definition of PwDs:
‘Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society.’

Ministry of Women, Family and Community Development, 2016) has stipulated specific categories of disabilities which includes seven (7) categories:
1. hearing;
2. vision,
3. speech,
4. physical,
5. learning difficulties;
6. mental and
7. various or multiple disabilities.
Scope and Parameters of Research

**CONCEPT**
- Universal Design
- "design of products and environments usable by all people to the greatest extent possible, without the need for adaptation or specialized design”

**LEGISLATION**
- Policy & Action Plan
  - Related to PwDs only
- UBBL
  - UBBL 34A etc
- Acts & Laws
- Malaysian Standard
- Design Guidelines

**PHYSICAL BUILT ENVIRONMENT**

**BUILDING TYPOLOGY (UBBL)**
- a) residential buildings
- b) offices, banks, post offices, shops, department stores, supermarkets, hotels and government buildings.
- c) hospitals, clinics and other health and welfare buildings;
- d) restaurants, concert halls, theatres, cinemas, conference buildings, community buildings, swimming pools, sports buildings and others;
- e) religious buildings;
- f) schools, hostels, colleges, universities, zoos, museums, art galleries, libraries, exhibition buildings and, other educational, cultural and scientific buildings;
- g) historical buildings, heritage, sport rail, road, sea and air travel buildings and associated concourses, car-parking building and factory

**USER**
- Person with Disabilities (PwDs)
  - 1. hearing;
  - 2. speech;
  - 3. vision;
  - 4. physical;
  - 5. various or multiple disabilities;
  - 6. Learning difficulties;
  - 1. Mental

**Scope & Focus of Study**
Theoretical Framework

Disability Studies
- The Medical Model of Disability
- Rights of PwDs
- Equal opportunity, social participation & Inclusion
- The Social Model of Disability

(Bickenbach et al., 1999; Erkilic, 2011; Froyen, 2015)

Social & Legal Approach

International Law on Disability Legal Studies
- United Nation International Year of Disabled Persons 1982
- International Decade of Disabled Person 1983-1992
- UNESCAP
- UNCRPD 2006
- ‘Incheon Strategy’ 2012-2022

Disability Concepts and Terminology in relation to Built Environment
- Accessibility
- Universal Design
- Design for All
- Inclusive Design
- Accessible Design
- Barrier-free Design
- Disability
- Impairment
- Persons with Disabilities (PwDs)

(Bendixen, 2010; Manley, 1996)
(Kamarudin et al., 2012; Stein & Lord, 2010; Strand, 2014; Tah & Mokhtar, 2016)
Theoretical Framework

Social Sustainability
- Inclusive;
- Social inclusion;
- Social participation;

Urban Design & Urban Transportation
- Accessibility - Mobility

Science & Technical Approach

Design and Practice; Implementation & Enforcement
- Architect perception – Awareness – UBBL Requirements

Researchers & Local Authority (PBT, JKT, KPCT)
- Americans with Disabilities Act 1990
- Disability Discrimination Act 1995
- Japanese with Disabilities Act 1993
- Persons with Disabilities (PwDs) Act 2008
- JPOKU, JKM, KPWKM;
- Local Authority (PBT, JKT, KPCT)

Academia & Technical Approach

Asiah Abdul Rahim et al., 2014; Soltani et al., 2012
(Manley, 1996; Bickenbach et al., 1999; Evcil, 2012; Kadir & Jamaludin, 2013; I. M. Lid & Solvang, 2016)

(Asiah Abdul Rahim et al., 2014; Yusof & Jones, 2014)
Research Methodology

Title: Universal Design Approach for an Accessible Built Environment through Legislation for Effective Implementation in Malaysia

Introduction

Issues and Problem Statement

Stage 1 - Research Background

Global Concern

Regional Concern

Local Concern

Stage 2 - Literature Review

Social & Legal Approach

Academia & Technical Approach

Objective 1
To identify and distinguish the legislations related to PwDs & accessibility in Malaysia.

Objective 2
To investigate implementation strategies and initiatives of other countries that has regulated their legislation & enforcements.

Objective 3
To formulate a recommended implementation framework on strategy to ensure enforcement for accessibility.
Stage 1 - Literature Review
What are the related legislations?

Stage 2 - Parameters
Question 1: How are related legislations adopted in Malaysia?
Question 2: How do other countries adopt these legislations?
Question 3: How do others overcome issues, problems, and enforce implementation?

Stage 3 - Data Collection
Instrument & Samples
- Document review
  - Acts and policy
  - Master plan and Action plan
  - Standards and code of practice
  - Government reports
  - Design guidelines
  - Journal and proceeding publication
- Video and audio presentation recording of expert / government representative officer
- Mass Media of current issues / news paper cuttings

Qualitative
- Content Analysis - Thematic, Patterns interpretation & Descriptive

Stage 4 - Data Analysis
Formulation of an implementation strategy framework of accessibility and seamless connectivity through the application of Universal Design in Malaysian built environment.

Stage 5 - Findings & Discussion
- Qualitative
  - Content Analysis - Thematic, Patterns interpretation & Descriptive
  - Descriptive Statistic - SPSS

Triangulation
Significance of Research

A continuous effort of instilling and changing the society’s mentality of receiving welfare to the social model of disability as the ideals of Universal Design is to demedicalisation perceptions and create a new perspectives of universalisation of disability.

Universal Design is the most relevant concept and the current trending concept besides the terminology has been familiarize within all Malaysian Ministry and Government Agencies.

To further the Universal Design concept of Inclusion to Innovation and instead of stifling creativity for architects, planners and designers and pushes them to be inventive.

Formulation of Accessibility Implementation Framework for use under ministry and government agencies in innovating possibilities of expanding the existing policies for empowering accessibility for all in our physical built environment.
# Research Gantt Chart

<table>
<thead>
<tr>
<th>Activities</th>
<th>Semester / Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Conceptualization</strong></td>
<td>1/2016</td>
</tr>
<tr>
<td>- Introduction and research background.</td>
<td></td>
</tr>
<tr>
<td>- Research objectives and research questions developed.</td>
<td></td>
</tr>
<tr>
<td>- Research gaps identified.</td>
<td>2/2017</td>
</tr>
<tr>
<td>- Develop theoretical framework.</td>
<td>3/2017</td>
</tr>
<tr>
<td>- Distinguish research theoretical underpinnings.</td>
<td>4/2018</td>
</tr>
<tr>
<td>- Proposal Defense.</td>
<td>5/2018</td>
</tr>
<tr>
<td>- Literature Review</td>
<td>6/2019</td>
</tr>
<tr>
<td>- Comparisons of Universal Design strategies and implementations in other developed and developing countries.</td>
<td></td>
</tr>
<tr>
<td>- Definition of terms.</td>
<td>1/2016</td>
</tr>
<tr>
<td>- Chronology development of Universal Design and Accessibility.</td>
<td>2/2017</td>
</tr>
<tr>
<td>- Writing</td>
<td>3/2017</td>
</tr>
<tr>
<td>- Writing for Journal publications.</td>
<td>4/2018</td>
</tr>
<tr>
<td>- Attending and presenting at international conferences.</td>
<td>5/2018</td>
</tr>
<tr>
<td>- Writing papers for conferences and seminars.</td>
<td>6/2019</td>
</tr>
<tr>
<td>- Data Collection</td>
<td>1/2016</td>
</tr>
<tr>
<td>- Interviews of experts at the Ministry, Local Government, NGOs.</td>
<td>2/2017</td>
</tr>
<tr>
<td>- Collection of related master plans, structure plans, action plans documents and policies.</td>
<td>3/2017</td>
</tr>
<tr>
<td>- Supporting documents in assisting design implementations such as guidelines and standards.</td>
<td>4/2018</td>
</tr>
<tr>
<td>- Writing for Journal publications.</td>
<td>5/2018</td>
</tr>
<tr>
<td>- Data Analysis</td>
<td>6/2019</td>
</tr>
<tr>
<td>- Discussion on data collected.</td>
<td>1/2016</td>
</tr>
<tr>
<td>- Interpretation of data analysis.</td>
<td>2/2017</td>
</tr>
<tr>
<td>- Journal publications.</td>
<td>3/2017</td>
</tr>
<tr>
<td>- Thesis writing</td>
<td>4/2018</td>
</tr>
<tr>
<td>- Discussion and conclusion.</td>
<td>5/2018</td>
</tr>
<tr>
<td>- Submission of thesis</td>
<td>6/2019</td>
</tr>
<tr>
<td>- Viva-voce examination and presentation.</td>
<td></td>
</tr>
<tr>
<td>- Correction after viva.</td>
<td>1/2016</td>
</tr>
</tbody>
</table>
Main References


Main References


Thank you