

- Global Regional Review (GRR)
- URL: [http://dx.doi.org/10.31703/grr.2022\(VII-1\).14](http://dx.doi.org/10.31703/grr.2022(VII-1).14)



Cite Us



## Disability and Employment; Quota System and Infrastructure Analysis LDA Lahore as a Paradigm

- Vol. VII, No. I (Winter 2022)
- Pages: 130 – 147
- DOI: 10.31703/grr.2022(VII-1).14
- p- ISSN: 2616-955X
- e-ISSN: 2663-7030
- ISSN-L: 2616-955X

Minahil Nawaz \*

Zaira Tahir †

Asra Hafeez ‡

**Abstract:** An incapacity is any condition of the body or mind that makes it more problematic for the individual with the state to do certain accomplishments and cooperate with the world around them. The main objectives of the study are to find the relationship between disability and employment, empower disabled people, provide them with better employment opportunities, make them financially stable and make them independent and incorporate the factors that make the building accessible and comfortable for the disabled. From the literature reviews which were of different ideologies and objectives, the result came is that there are different techniques by which the problems can be solved by involving sustainability, accessibility and adaptability in an infrastructure design. The sector of the LDA has been selected for the research analysis. The quotas for disabled people and the building infrastructure of LDA will be analyzed. For the research analysis, the different types of analysis will be performed on the data which are 3D analysis, Demographics Analysis, questionnaire and Correlation Analysis. The proposals which are given are based on the provision of parking, washrooms facilities, staircases, ramps, handrails, and office furniture and entrance gates.

**Key Words:** Disability, Employment, Infrastructure, Accessibility, Sustainability, Disables Community

### Introduction

An incapacity is any condition of the body or mind that makes it more problematic for the individual with the state to do certain accomplishments and cooperate with the world around them. An employment arrangement between the business and the representative that the worker will offer particular types of assistance, consequently to which the worker is paid compensation or time-based compensation.

There are many kinds of disabilities people faced which include mental, physical and some other disabilities. According to a study, 15% of the realm's populace faced some sort of disability. Most disabled persons don't earn on their own they usually depend upon

someone due to which they fell many types of problems.

More than one billion folks around 15% of the world's populace are incapacitated (Cobley, 2015). One billion individuals or 15% of the total populace, experience some type of handicap, and incapacity commonness is higher for agricultural nations. One-fifth of the assessed worldwide aggregate, or between 110 million and 190 million individuals, experience critical handicaps. The impaired individuals are excessively addressed among poor people, have more elevated levels of neglected wellbeing needs, and are over two times as logical as non-incapacitated individuals to be jobless. (Cobley, 2015).

\* University of Management and Technology, Lahore, Punjab, Pakistan. Email: [minahil.nawaz@umt.edu.pk](mailto:minahil.nawaz@umt.edu.pk) (Corresponding Author)

† University of Management and Technology, Lahore, Punjab, Pakistan.

‡ University of Management and Technology, Lahore, Punjab, Pakistan.

Tending to the broad prohibition of crippled individuals all over the planet is plainly a basic freedoms issue. The deficiency of usefulness coming about because of the avoidance of debilitated individuals from training and work, combined with the subsequent loss of expenses and the monetary weight put on state government assistance frameworks, is difficult to evaluate yet puts a critical strain on the all-around overextended economies of many low pay nations. At the point when the non-financial expenses of handicap, for example, social separation and the support of a pessimistic view of crippled individuals as unfit and non-donors, are likewise considered, a strong case can make for advancing the consideration and strengthening of debilitated individuals (Cobley, 2015). A significant number of the issues and concerns confronting debilitated individuals, like rejection from wellbeing, training and business, are like those looked at by destitute individuals overall.

The fifth Population and Housing Census led in 1998 recognized the number of inhabitants in Persons with Disabilities in Pakistan to be 2.38% of the whole populace. In any case, according to the sixth Population and Housing Census of 2017, the rate has gone down to under 0.48%. (Disabled constitute

just 0.48% of total population, 2017) In 2011 Pakistan Poverty Alleviation Fund attempted a complete overview of 23 association boards in seven locales of Pakistan, containing 78939 families, and viewed the incapacity predominance rate as around 12%, of which 2% had serious handicaps.

Disability is progressively on the advancement plan. Its job being developed should be completely perceived and the issues tended to as a central element of our aggregate endeavours. (Edmonds, 2005).

The purpose of our study is to acme the major factors that play a significant part in the accessibility plus comfortability for the disabled to use the building. To analyze the quota system of the department for providing more opportunities to the disabled.

There are some research questions on the basis of which this study is conducted. Is there any quota for the disabled in the LDA Department? And if the disabled have a quota in LDA Department what is the average who will avail that opportunity? Is the building infrastructure of the LDA Department sustainable and accessible for the disabled? Are the quota system and building infrastructure a problem for the disabled in LDA Department?



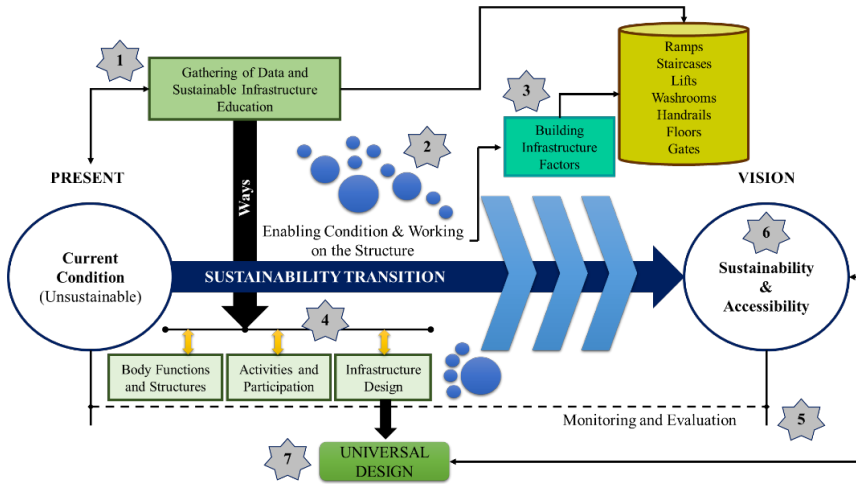
Figure 1: Location Map of LDA, Lahore

The key purposes of the research are to find the relationship between disability and

employment, to empower the disabled people, to provide them with better

employment opportunities, to make them financially stable and to make them independent and incorporate the factors that

make the building accessible and comfortable for the disabled. The conceptual map for the study is as below



Flowchart 1: Conceptual Framework of Study

**Limitation**

This research is based on the disability and the infrastructure of Lahore Development Authority (LDA) Lahore. The factors of ramps, environment, accessibility, sustainability, office furniture, accessibility, infrastructure design, facilities, staircases, lifts and the washroom design are some of the major factors which play a vital role in the universal infrastructure design of any building, especially for disabled.

Lahore Development Authority (LDA) is a major authority in a boundary of Lahore which plays a substantial part in many aspects of the provision of Lahore. There are some limitations faced during research that the people were not willing to answer the questions, the time was the major limit which was faced during the research and the collection of data from the office was a limit faced during the study.

**Case Study in Indonesia  
“Employment Situation of Person with Disabilities: Case Study in Indonesia”**

The research was on the subject of “Employment Situation of Person with

Disabilities: Case Study in Indonesia” which have been issued on 5 January 2019.

The review depicts that fairness in a business opportunity or usually known as Equal Employment Opportunity (EEO) is as yet not absolutely substantial to an individual with handicaps. World Report on Disability record 15, 3 percent of the total populace is the individual with incapacities in 2010 (Antonio Friar, 2019). The vast majority of the individual with incapacities had not participated in the regular social movement and for the most part depended on friendly guides, remembering Indonesia, where 74, 7 percent from the absolute of an individual with handicaps are jobless\_(Antonio Friar, 2019).

The devices utilized for exploring the reason for the low degree of incapacities to work will be acquired from the Survey of Employer Perspectives on the Employment of People with Disabilities Questionnaire (2008) by the United States Department of Labor Office of Disability Employment Policy (Antonio Friar, 2019) This apparatus with study means to find factors that caused a low degree of incapacities work in Indonesia in light of the board perspective from a few private endeavours. The example will be

gathered by instruments (Survey of Employer Perspectives on the Employment of People with Disabilities Questionnaire) taken from private undertaking administrative level (Antonio Frián, 2019). The information must be gotten from the administrative to ensure the respondent knew about business and taken from 4 endeavours to have an arbitrary perspective.

Accordingly, the endeavours information on incapacities necessities is evaluated less huge toward the total planning of inabilities labour force.

Some of the recommendations which have been given for the study are:

- Ventures need to set up a work framework plan to utilize the handicapped labour force;
- The schooling system likewise should be changed to get ready handicaps for work and changed with their capacities;
- The public authority additionally needs to offer sufficient help for inabilities to support their government assistance;
- Revision should be begun from the instructive level for inabilities.

This paper has portrayed the work circumstance of an individual with handicaps in Indonesia. As indicated by the World Report on Disability record 15, 3 percent of the total populace is the individual with incapacities in 2010 (Antonio Frián, 2019). The overview of Employer Perspectives on the Employment of People with Disabilities Questionnaire has been directed by the United States Department of Labor Office of Disability Employment Policy. Thus, undertakings information on inabilities necessities is evaluated as less critical toward the total planning of incapacities labour force. The principle factor that caused it is the work plan of ventures and training level. There is a portion of the proposals by which the handicapped individuals will likewise get the more open doors which improve their living style (Antonio Frián, 2019).

The association of the writing investigation of Employment Situation of Person with Disabilities: Case Study in Indonesia with the examination investigation of Disability and Employment; a contextual

analysis of Lahore is the significant goals of what are the work circumstance of individual with inabilities and what philosophy have been framed for the information examination and information assembling and how we can provide food with the cripple individuals in business (Antonio Frián, 2019).

## Urban Development Study

### **"Disability, Accessibility and Sustainable Urban Development"**

It is projected that by 2050, 66% of the world's populace, will be existing in metropolises (*The World Urbanization Prospects, 2014*). As indicated by the World Bank and the WHO, internationally, there are north of 1 billion, or around 15 % of the total populace, living with an inability (*Disability, Accessibility and Sustainable Urban Development, 2016*). People with inabilities face a broad lack of openness to fabricate conditions, from streets and lodging, to public structures and spaces and to essential metropolitan administrations like sterilization and water, wellbeing, training, transportation, and crisis reaction and flexibility programs (*Disability, Accessibility and Sustainable Urban Development, 2016*). The absence of availability contributes extraordinarily to the hindered and weak circumstances looked by people with inabilities, prompting unbalanced paces of destitution, hardship and prohibition among people with handicaps (*Disabled constitute just 0.48% of total population, 2017*). The worldwide regularizing plan and direction on availability are given by various global instruments concerning inability (*Disability, Accessibility and Sustainable Urban Development, 2016*). The World Programs of Action concerning Disabled Persons sees availability as a fundamental means to additional its objectives of "full investment" and "correspondence" (*Disability, Accessibility and Sustainable Urban Development, 2016*). The Standard Rules on the Equalization of Opportunity for Persons with Disabilities distinguishes "openness" of the actual climate and of data and correspondence as two "target regions" to guarantee evening out of chances (*Disability, Accessibility and*

*Sustainable Urban Development, 2016*). It additionally characterizes availability as a method and an objective of incapacity comprehensive turn of events. Openness is laid out in the Convention as a cross-cutting component that empowers people with disabilities to live autonomously and take an interest completely in all parts of life. Crafted by the United Nations in advancing openness and headway of people with disabilities is well established in its Charter and its obligation to advance financial and social advancement and basic freedoms for all. The Department of Economic and Social Affairs (DESA), as the UN incapacity point of convergence, has effectively advanced availability in the setting of supportable and comprehensive improvement for all (*Disability, Accessibility and Sustainable Urban Development, 2016*). The General Assembly additionally urged States to guarantee "availability and sensible convenience to empower people with disabilities to understand their entitlement to live autonomously and take an interest completely in all parts of life, as well as to be specialists and recipients of improvement" (ARE63).

## Study of Adelaide CBD

### "Lifting the Barriers: Planning for Increased Mobility and Accessibility through the Adelaide CBD"

Inside scholastic writing, the talk encompassing impaired individuals uses a variety of wording, conceivably making disarray (Madeleine Rains). Regularly utilized reciprocally inside similar examination, terms incorporate 'handicapped individuals' (Burns K. &, 2010), 'people with a corporal disability' (Church, 2003), 'people with corporeal mobility' (Bertolini, 2008), 'wheelchair operators' (Bromley, 2007), 'unusual essentials' (Kailes, 2007), and 'need for assistance' (*Disability, aging and Carers, Australia: Summary of findings, Australian Bureau of Statistics*). The way to change notwithstanding is understanding that issues can't be settled by suppositions about incapacitated individuals; meeting and cooperation of information is vital (Madeleine Rains). Walsh (1997) accepts that 'a

comprehensive vision constrains us to stretch out common freedoms to each resident, to put forth commendable objectives and to shape the social approaches which seek after these objectives' (Madeleine Rains). Coordination of administrations, projects and procedures will be essential to see that all perspectives and variables are arranged accurately and the ideal result is accomplished (Burns K. &, 2010). Each open vehicle choice should offer handicapped admittance and in this manner, labourers/drivers of these frameworks will require preparation. Along these lines there is an extremely contemporaneous development inside intending to consider and carry out approaches, which stringently centre around the necessities expected by incapacitated individuals, to further develop availability and uniformity in our urban areas. Transport and versatility are critical contemplations in the preparation of urban communities today (Madeleine Rains).

### Barriers Related to the Infrastructure Faced by Disables

Issues encompassing portability, openness, and physical and open hindrances in the assembled climate are major contributing variables to social isolation issues looked at by impaired individuals. The Adelaide City Development Plan (2013) has simply two standards connecting with incapacitated individuals: one expressing that entrance ought to be given to and inside structures to all, and another that handicapped vehicle parks ought to be given (Madeleine Rains).

The issues related to accessibility, mobility, and disability have been highlighted which are the:

- Tracks: Transferring 'geography
- Convenience into Buildings: 'The Picturesque Route'
- Transportation options: "If an urban is available, a person shouldn't necessitate as much subsidy or support"
- Unreachable paths to the transportation stops

- Trams and trains provided incapacitated entry, however, buses were untrustworthy.
- When a nearby bus does attain, different walkway statures often make the slope entry difficult
- Bus motorists are under-skilled in how to help an incapacitated person onto the bus
- Bus routes are not direct sufficient and changing buses raises all the above-stated issues again.
- Entree Cabs are luxurious even with disability-entitled tickets. They are also untrustworthy and often have wide to come ages.
- Other Fences: 'susceptible and at danger to bout and theft'

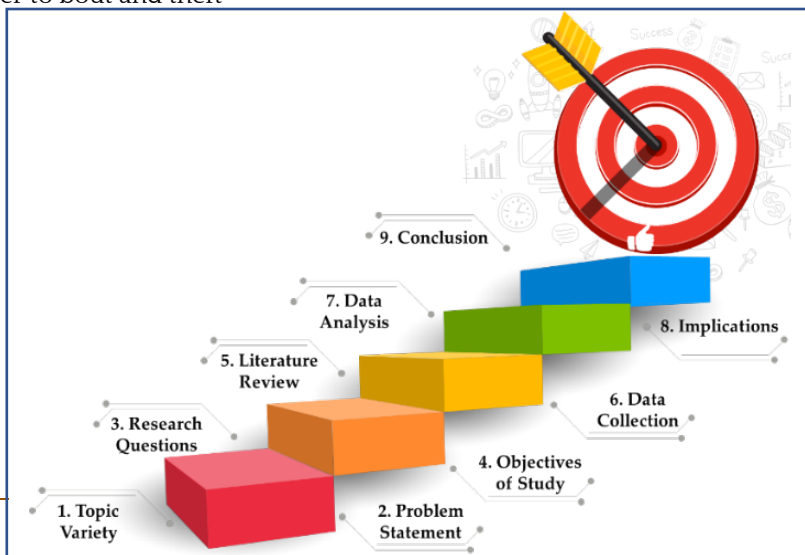
- Issues of Communal Receipt: 'second class citizen'

### Creating an Inclusive Planning Approach

There are some planning approaches that have been created to accommodate the disables that are:

- Accessibility to Usability
- Consultation to Collaboration

Metropolitan arranging could and should assume an imperative part in working on the fabricated climate to eliminate existing physical and social boundaries to help the impaired local area [\(Madeleine Rains\)](#). We ought to make 'a more comprehensive society wherein each resident, paying little mind to weakness, has the privilege to get to public spaces in respect'[\(Kitchin, 2001\)](#).



Flowchart 2: Methodology of the Study

### Methodology

A background outline for research, an intelligible and rational arrangement based on opinions, politics, and standards, that guides the selections scholars make for the research has been divided into different facts and figures. For the data collection and data analysis, Lahore city of Pakistan has been selected. The public sector has been selected for further collection and analysis due to the

shortage of time, COVID-19 and the to cover the project in a Lahore boundary because the LDA is the government department which is in Lahore only and due to the major authority the LDA Have been selected for the research purpose. From the different public sectors of WASA, LDA, NADRA, PHA, TMA, CDA and BISE Lahore the HEC sector has been selected for the data collection and analysis. The sector of the LDA has been selected for the research analysis. The quotas for disabled people and

the building infrastructure of LDA will be analyzed. For the research analysis, the different types of analysis will be performed on the data which are 3D Analysis, Demographics Analysis and Correlation Analysis, and Questionnaire Analysis. Firstly, the 3D analysis has been performed in which the different major factors have been highlighted in a graphic representation showing the percentages of infrastructure factors currently existing in an office for the disabled. Secondly, the questionnaire analysis has been done in which there are different sections with the different factors are play a noteworthy role in gathering the data about the infrastructure of the LDA building is accessible for the disabled or not. The opinions of the people of the LDA office have been taken. Thirdly, the colouration analysis between the buildings of LDA Office on the factors of no. of floors, no. of washrooms, no. of staircases and no. of lifts. Fourthly, the 3D map has been generated in which the different factors according to the standards have been incorporated into the infrastructure of the office, which is said to be a universal design

### Existing 3d Map Of LDA, Lahore

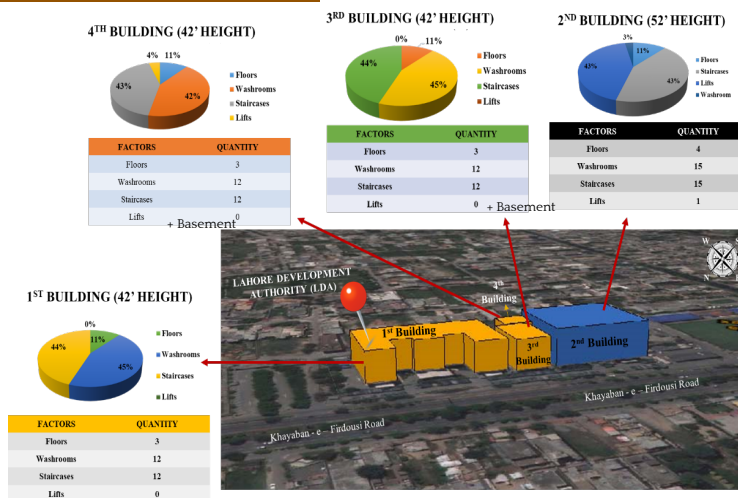
The boundary was marked using a Google Earth Pro, then the map was digitized in ArcGIS using the projected coordinate system. After georeferencing and rectifying, the shapefile was made by connecting the folder. There are four buildings in the Lahore Development Authority boundary, these four buildings were separately cut down in a boundary. After making the shapefile, the field was made of height. The different heights were entered in the field of height for the different buildings. The data was exported to ArcGIS Pro for the 3D analysis. After exporting the data, the heights were entered in ArcGIS Pro for the 3D formation. The analysis was run in ArcGIS Pro. As a result, the buildings were extruded in accordance with the heights which were entered.

The symbology was given to the buildings of Lahore Development Authority (LDA) in accordance with the heights of the buildings.

There are different factors that were highlighted during the survey of LDA. The factors which play a vital role in building infrastructure, especially for the disabled.

The map shows the building heights of LDA with the number of different washrooms, staircases, lights, and floors in all the buildings.

### Existing Map



Map 1: Existing 3D map of LDA, Lahore with Infrastructure Factors

## Building Factors of LDA Correlation

**Table 1.** Correlation Table of Building Infrastructure

SR.NO.	FACTORS	MAGNITUDE				SATISFACTION LEVEL				REMARKS	
1	Department in LDA Office	22 Departments in LDA Office				✓				The different range was highlighted in the departments by after the survey there came to know that there are total 22 departments in LDA office.	
2	No. of Buildings	4 Building with Different Heights				✓				In the Lahore Development Authority (LDA), there are total four buildings with different infrastructure factors.	
3	Infrastructure Building Factors	1 <sup>st</sup> Building	2 <sup>nd</sup> Building	3 <sup>rd</sup> Building	4 <sup>th</sup> Building	1 <sup>st</sup> Building	2 <sup>nd</sup> Building	3 <sup>rd</sup> Building	4 <sup>th</sup> Building	There are total 4 buildings in the area.  The 1 <sup>st</sup> Building is of 42' Height, 2 <sup>nd</sup> Building is of 52' Height, 3 <sup>rd</sup> Building is of 42' Height and the 4 <sup>th</sup> Building is of 42' Height.  The 1 <sup>st</sup> Building with the height of 42' is having 4 floors with 12 staircases and 12 washrooms with no lift. The 2 <sup>nd</sup> Building is having 6 floors with 15 staircases, 15 washrooms and 1 lift. The 3 <sup>rd</sup> Building is of the height of 42' with 4 floors, 12 staircases, 12 washrooms and 0 lift. The 4 <sup>th</sup> Building is of the height 42' with 4 floors, 12 staircases, 12 washrooms and 0 lift.	
		42' Height	52' Height	42' Height	42' Height	42' Height	52' Height	42' Height	42' Height		
		Floors	4	6	4	4	✓	✓	✓		✓
		Staircases	12	15	12	12	✓	✓	✓		✓
		Washroom	12	15	12	12	✓	✓	✓		✓
Lifts	0	1	0	0	✗	✗	✗	✗			
4	No. of Entrance Gates	4 Entrance Gates				✓				There are total 4 entrance gates in LDA office. The two gates are in front and other two are in a back. But only one entrance gate is in working condition in a front.	
5	Quota System	3% Quota System for Female and Male				✗				There is quota for disable people which is declared by the office. The quota system which is declared by the office is of 3% included females and males.	
6	Disables Working in Office	36% Majority Disables are Working in LDA Office				✗					
7	Ramp System	No Ramp System for Disables				✗				There is no ramps in the office for the accessibility of the disables. Only 16% people were there who says the ramps were provided in an office for disables. The 50% of the people were neutral in the satisfaction level of ramps in ramps. 27% of the people were satisfied and 23% of the people were dissatisfied.	
8	Elevator	No Elevator for Disables				✗				According to the ranks there is no elevator for the disables provided in office. 58% of the people said there was no elevator in office and 42% of the people said there was an elevator for disables. The 31% of the people were neutral in the satisfaction level of ramps in elevator. 27% of the people were satisfied and 27% of the people were dissatisfied and 15% were strongly dissatisfied.	
9	Handrails	Non-Accessible handrails for Disables				✗				There was no provision of handrails for disable. 85% of people said that there was no handrails for disables in office. The 39% of the people were neutral in the satisfaction level of handrails for disables. No one is satisfied for the handrails and 46% of the people were dissatisfied and 15% were strongly dissatisfied.	
10	Parking	No Parameters for Disables in Parking Area				✗				There is separate parking for the disables workers. The majority of the people are highly dissatisfied with the parking in the LDA Office.	

### Correlation Analysis

#### Descriptive Statistics

The correlation analysis was performed on the collected data from LDA Office. The correlation analysis between the data of no. of floors, no. of staircases, no. of washrooms and no. of lifts for each building have been analyzed and differentiated.

#### Descriptive Statistics of 1<sup>ST</sup> Building

The descriptive statistics of the 1st Building with the factors of no. of floors, no. of staircases, no. of washrooms and no. of lifts are given in Table 1.

**Table 2.** Descriptive Statistics of 1<sup>st</sup> Building Factors

#### Descriptive Statistics

	Mean	Std. Deviation	N
How many buildings are there in LDA Office?	2.00	.000	25
How many floors are there in the 1st Building of the LDA Office?	3.00	.000	25
How many staircases are there in the 1st Building of the LDA Office?	12.00	.000	25



**Descriptive Statistics**

	Mean	Std. Deviation	N
How many washrooms are there in the 1st Building of the LDA Office?	12.00	.000	25
How many lifts are there in the 1st Building of the LDA Office?	.00	.000	25

**Descriptive Statistics of 2<sup>nd</sup> Building**

The descriptive statistics of the 1st Building with the factors of no. of floors, no. of

staircases, no. of washrooms and no. of lifts are given in Table 2.

**Table 3.** Descriptive Statistics of 2<sup>nd</sup> Building Factors

**Descriptive Statistics**

	Mean	Std. Deviation	N
How many buildings are there in LDA Office?	2.00	.000	25
How many floors are there in the 1st Building of the LDA Office?	4.00	.000	25
How many staircases are there in the 1st Building of the LDA Office?	15.00	.000	25
How many washrooms are there in the 1st Building of the LDA Office?	15.00	.000	25
How many lifts are there in the 1st Building of the LDA Office?	1.00	.000	25

**Descriptive Statistics of 3<sup>rd</sup> Building**

The descriptive statistics of the 1st Building with the factors of no. of floors, no. of

staircases, no. of washrooms and no. of lifts are given in Table 3.

**Table 4.** Descriptive Statistics of 3<sup>rd</sup> Building- Factors

**Descriptive Statistics**

	Mean	Std. Deviation	N
How many buildings are there in LDA Office?	2.00	.000	25
How many floors are there in the 1st Building of the LDA Office?	3.00	.000	25
How many staircases are there in the 1st Building of the LDA Office?	12.00	.000	25
How many washrooms are there in the 1st Building of the LDA Office?	12.00	.000	25
How many lifts are there in the 1st Building of the LDA Office?	.00	.000	25

**Descriptive Statistics of 4<sup>th</sup> Building**

The descriptive statistics of the 1st Building with the factors of no. of floors, no. of

staircases, no. of washrooms and no. of lifts are given in Table 4.

**Table 5.** Descriptive Statistics of 4<sup>th</sup> Building-Factors

**Descriptive Statistics**

	Mean	Std. Deviation	N
How many buildings are there in LDA Office?	2.00	.000	25
How many floors are there in the 1st Building of the LDA Office?	3.00	.000	25
How many staircases are there in the 1st Building of the LDA Office?	12.00	.000	25
How many washrooms are there in the 1st Building of the LDA Office?	12.00	.000	25
How many lifts are there in the 1st Building of the LDA Office?	.00	.000	25

**Results**

The descriptive statistics of 1<sup>st</sup> Building with the mean of no. of the building is 2, no. of

floors is 3, staircases in the 1<sup>st</sup> building are 12, no. of washrooms is 12 and mean of lifts is 0. The total number is 25. The descriptive

statistics of 2<sup>nd</sup> Building with the mean of no. of the building is 2, no. of floors is 4, staircases in the 2<sup>nd</sup> building are 15, no. of washrooms is 15 and mean of lifts is 1. The total number is 25. The descriptive statistics of the 3<sup>rd</sup> Building with the mean of no. of the building is 2, no. of floors is 3, staircases in the 3<sup>rd</sup> building are 12, no. of washrooms is 12 and mean of lifts is 0. The total number is 25. The descriptive statistics of the 4<sup>th</sup> Building with the mean of no. of the building is 2, no. of

floors is 3, staircases in the 4<sup>th</sup> building are 12, no. of washrooms is 12 and mean of lifts is 0. The total number is 25.

### Correlation Analysis

The correlation analysis between the buildings of LDA Office has been performed on different factors in accordance with which are the no. of floors, no. of staircases, no. of washrooms and no. of lifts.

### Correlation Analysis of 1<sup>st</sup> Building

Table 6. Correlation Analysis of 1<sup>st</sup> Building

Correlations		How many lifts are there in the 1st Building of the LDA Office?	How many washrooms are there in the 1st Building of the LDA Office?	How many staircases are there in the 1st Building of the LDA Office?	How many floors are there in the 1st Building of the LDA Office?	How many buildings are there in LDA Office?
How many buildings are there in LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many floors are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many staircases are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many washrooms are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many lifts are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25

### Correlation Analysis of 2<sup>nd</sup> Building

**Table 7.** Correlation Analysis of 2<sup>nd</sup> Building

Correlations		How many lifts are there in the 2nd Building of the LDA Office?	How many washrooms are there in the 2nd Building of the LDA Office?	How many staircases are there in the 2nd Building of the LDA Office?	How many floors are there in the 2nd Building of the LDA Office?	How many buildings are there in LDA Office?
How many buildings are there in LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many floors are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many staircases are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many washrooms are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many lifts are there of 1st Building of LDA Office?	Pearson Correlation	.a	.a	.a	.a	.a
	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25

### Correlation Analysis of 3<sup>rd</sup> Building

**Table 8.** Correlation Analysis of 3<sup>rd</sup> Building

Correlations		How many lifts are there in the 3rd Building of the LDA Office?	How many washrooms are there in the 3rd Building of the LDA Office?	How many staircases are there in the 3rd Building of the LDA Office?	How many floors are there in the 3rd Building of the LDA Office?	How many buildings are there in LDA Office?
Pearson Correlation		.a	.a	.a	.a	.a

**Correlations**

		How many lifts are there in the 3rd Building of the LDA Office?	How many washrooms are there in the 3rd Building of the LDA Office?	How many staircases are there in the 3rd Building of the LDA Office?	How many floors are there in the 3rd Building of the LDA Office?	How many buildings are there in LDA Office?
How many buildings are there in LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many floors are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many staircases are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many washrooms are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
How many lifts are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25

**Correlation Analysis of 4<sup>TH</sup> Building**

**Table 9.** Correlation Analysis of 4<sup>th</sup> Building

<b>Correlations</b>		How many lifts are there in the 4th Building of the LDA Office?	How many washrooms are there in the 4th Building of the LDA Office?	How many staircases are there in the 4th Building of the LDA Office?	How many floors are there in the 4th Building of the LDA Office?	How many buildings are there in LDA Office?
Pearson Correlation		.a	.a	.a	.a	.a
Sig. (2-tailed)		.	.	.	.	.

How many buildings are there in LDA Office?	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
	Pearson Correlation	.a	.a	.a	.a	.a
How many floors are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
	Pearson Correlation	.a	.a	.a	.a	.a
How many staircases are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
	Pearson Correlation	.a	.a	.a	.a	.a
How many washrooms are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25
	Pearson Correlation	.a	.a	.a	.a	.a
How many lifts are there of 1st Building of LDA Office?	Sig. (2-tailed)	.	.	.	.	.
	Sum of Squares and Cross-products	.000	.000	.000	.000	.000
	Covariance	.000	.000	.000	.000	.000
	N	25	25	25	25	25

## Results

In the relationship examination of the structures, the various variables have been set for investigation which is Pearson Correlation, and Sig. (2-followed), Sum of Squares and Cross-items, Covariance and N which is the complete number. Pearson's connection coefficient is the test insights that action the factual relationship, or relationship, between two ceaseless factors. It gives data about the greatness of the affiliation, or connection, as well as the heading of the relationship. The Sig (2-followed) p-esteem tells you on the off chance that your connection was critical at a picked alpha level. The p-esteem is the likelihood you would see a given R-esteem by chance alone. In the event that your p-esteem is little, the connection is huge. The amount of cross items between every one of the components of segments j and k is addressed by  $\sum X_{rj}X_{rk}$ , added over r. A grid of amounts of squares and amounts of cross items is addressed by  $X'X$ , as displayed underneath. Hence, the

slanting components of  $X'X$  are amounts of squares, and the off-corner to corner components are cross items. Covariance is a factual instrument that is utilized to decide the connection between the developments of two resource costs. Whenever two stocks will quite often move together, they are viewed as having a positive covariance; when they move contrarily, the covariance is negative. The normal worth came for the first structure, the second structure, the third structure and the fourth structure is 25.

## Proposals

The proposals for LDA Office for the Disabled are given on the bases of the designs which is accessible to the disabled. In the design, the major facilities which are being covered and proposed are the entrance gates for the disabled, the washroom is designed in a way that is accessible and easy to use for the disabled, lifts that provide comfort to disables while moving from one floor to another or

from one area to another, the handrails are being designed in the proposed map for the disables to move easily, the ramps are being designed in the proposed map for the disables to move easily and the office furniture is being proposed for the disables to work easily.

### **Provision of Washrooms Facilities in Buildings**

The 1<sup>st</sup> Building of LDA which is of 42' height has 3 floors with a basement. There are 12 washrooms in the 1<sup>st</sup> building but the design is not accessible to the disabled. According to the survey of LDA, people are facing much more difficulty in using the washrooms. In the proposals, the provision in the design of washrooms has been given which is easy to use for all kinds of the people. The material in the washroom is being separated for the disabled.

The 2<sup>nd</sup> Building of LDA which is of 52' height has 4 floors with a basement. There are 15 washrooms in the 2<sup>nd</sup> building but the design is not accessible to the disabled. According to the survey of LDA, people are facing much more difficulty in using the

washrooms. In the proposals, the provision in the design of washrooms has been given which is easy to use for all kinds of the people. The material in the washroom is being separated for the disabled.

The 3<sup>rd</sup> Building of LDA which is of 42' height has 3 floors with a basement. There are 12 washrooms in the 3<sup>rd</sup> building but the design is not accessible to the disabled. According to the survey of LDA, people are facing much more difficulty in using the washrooms. In the proposals, the provision in the design of washrooms has been given which is easy to use for all kinds of the people. The material in the washroom is being separated for the disabled.

The 4<sup>th</sup> Building of LDA which is of 42' height has 3 floors with a basement. There are 12 washrooms in the 4<sup>th</sup> building but the design is not accessible to the disabled. According to the survey of LDA, people are facing much more difficulty in using the washrooms. In the proposals, the provision in the design of washrooms has been given which is easy to use for all kinds of the people. The material in the washroom is being separated for the disabled.



**Figure 2:** Design Provision of Washrooms for Disables

### **Provision of Staircases with Ramps in LDA Buildings**

The LDA Office have 4 buildings in its designated area. The 1<sup>st</sup> Building of LDA is of 42' height having the 3 floors with a basement. The 2<sup>nd</sup> Building of LDA which is of 52' height has 4 floors with a basement. The 3<sup>rd</sup> Building of LDA which is of 42' height has 3 floors with a basement. The 4<sup>th</sup> Building of LDA which is

of 42' height has 3 floors with a basement. On each floor of every building, the staircases are being provided but there are no ramps and handrails for the disabled to use the staircases. The staircases with the ramps and handrails are being proposed which are accessible and comfortable to use for the disabled. The design of the ramps with the staircases is the design which is for all kinds of people regardless of age, gender, disability,

character etc. The design which has been shown in Figure 4 is being proposed due to several benefits that this design is accessible,

provides the secure movement through it and the design is easy to make with low cost.



**Figure 3:** Design Provision of Ramps with Staircases for the Disabled

#### **Provision of Office Furniture in LDA Office**

The LDA Office have 4 buildings in its designated area. There is only a 3% of quota for the disabled for working including males and females both gender. The disabled people who are working in the office are feeling uncomfortable working. There is no office furniture for the disabled.

In the provision, the office furniture has been designed with several characteristics of the height of the table, design of the chair,

placement of stuff and the width of the cabin. The design which is being proposed is easy to use and accessible for the disabled to use according to their ease. This design is being proposed in every cabin of an office and on every floor of the building. An office will not progress until its workers do their work hard and the workers will not do their work hard until they are provided with a comfortable environment. A comfortable and easy environment is being provided for the workers to work.



**Figure 4:** Design Provision of Office Furniture for Disabled Workers

### Provision of Gates in LDA Building

There is a total of 4 entrance gates in a building, but only 2 gates are currently being used by the people; one is the front gate and the other is the back gate. The design provision for the gates is the design that is

easily being used by the people in a wheelchair or the disabled. The design which has been proposed is of the extra-wide wheelchair entry gate. The entry gate for the disabled should be separated from the other so that they will move with their ease and have a secure environment.



Figure 5: Design Provision of Gates for Disables

### Parking Provision

A debilitated leaving license, otherwise called a crippled identification, impaired bulletin, incapacitated grant, disabled notice, impeded tag, and "Blue Badge" in the European Union,

is shown after leaving a vehicle allowing the administrator of a vehicle to unique honours with respect to the left of that vehicle. There must be separate parking and parking facilities for the disabled workers in the office.

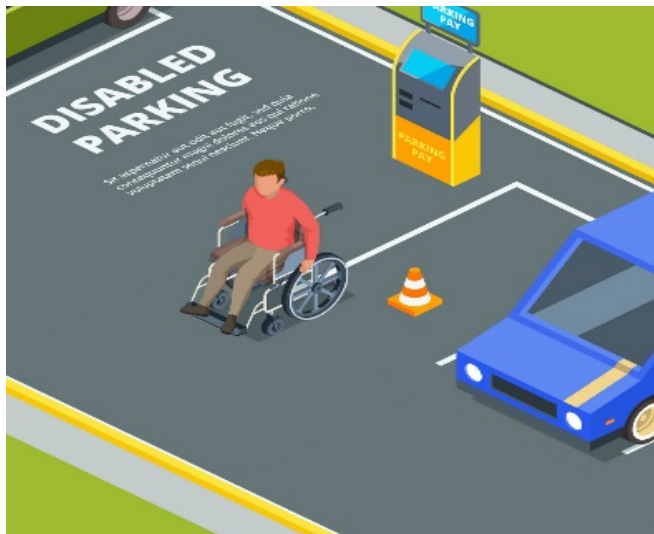


Figure 6: Provision of Parking for Disables





**Flowchart 3:** Provision of Design Factors

## Conclusion

An inability is any state of the body or brain (debilitation) that makes it harder for the individual with the condition to do specific exercises (movement constraint) and associate with their general surroundings (investment limitations). More than one billion individuals around 15% of the total populace are crippled. One billion individuals or 15% of the total populace, experience some type of inability, and handicap predominance is higher for agricultural nations. One-fifth of the assessed worldwide aggregate, or between 110 million and 190 million individuals, experience huge disabilities. The fifth Population and Housing Census led in 1998 distinguished the number of inhabitants in Persons with Disabilities in Pakistan to be 2.38% of the whole populace. In any case, according to the sixth Population and Housing Census of 2017, the rate has gone down to under 0.48%. In 2011 Pakistan Poverty Alleviation Fund attempted a thorough overview of 23 association chambers in seven regions of Pakistan, involving 78939 families, and viewed the inability pervasiveness rate as around 12%, of

which 2% had serious handicaps. The main objectives of the study are to find the relationship between disability and employment, to empower the disabled people, to provide them with better employment opportunities, make them financially stable and to make them independent and incorporate the factors that make the building accessible and comfortable for the disabled. From the literature reviews which were of different ideologies and objectives, the result came is that there are different and techniques by which the problems can be solved by involving the sustainability, accessibility and adaptability in an infrastructure design. The sector of the LDA has been selected for the research analysis. The quotas for disabled people and the building infrastructure of LDA will be analyzed. For the research analysis, the different types of analysis will be performed on the data which are 3D analysis, Demographics Analysis, questionnaire and Correlation Analysis. The proposals which are given are based on the provision of washrooms facilities, staircases, ramps, handrails, and comfortable office furniture, parking and entrance gates

## References

- Frian, A., Mulyani, F., Joachim, H., Anggreni, D., & Effendi, W. Y. (2019). Employment Situation of Person with Disabilities: Case Study in Indonesia. *Integrated Journal of Business and Economics*, 3(1), 93. <https://doi.org/10.33019/ijbe.v3i1.91>
- Bertolini, L., Clercq, F. L., & Straatemeier, T. (2008). Urban transportation planning in transition. *Transport Policy*, 15(2), 69–72. <https://doi.org/10.1016/j.tranpol.2007.11.002>
- F Bromley, R. D., Matthews, D. L., & Thomas, C. J. (2007). City centre accessibility for wheelchair users: The consumer perspective and the planning implications. *Cities*, 24(3), 229–241. <https://doi.org/10.1016/j.cities.2007.01.009>
- Kovacs Burns, K., & Gordon, G. L. (2009). Analyzing the Impact of Disability Legislation in Canada and the United States. *Journal of Disability Policy Studies*, 20(4), 205–218. <https://doi.org/10.1177/1044207309344562>
- Church, R. L., & Marston, J. R. (2003). Measuring Accessibility for People with a Disability. *Geographical Analysis*, 35(1), 83–96. <https://doi.org/10.1111/j.1538-4632.2003.tb01102.x>
- Cobley, D. (2015). Disability and Development. Applied Knowledge Services, 1.
- Edmonds, L. J. (2005). Disabled People and Development. Asian Development Bank.
- Kailes, J. &. (2007). Moving beyond special needs: a function-based framework for emergency management and planning. *Journal of Disability Policy Studies*, 230–237. <https://doi.org/10.1177/10442073070170040601>
- Kitchin, R., & Law, R. (2001). The Socio-spatial Construction of (In)accessible Public Toilets. *Urban Studies*, 38(2), 287–298. <https://doi.org/10.1080/00420980124395>
- Madeleine, & Rains, R. B. (n.d.). Lifting the Barriers: Planning for Increased Mobility and Accessibility through the Adelaide CBD. South Australia : School of Natural and Built Environments.
- The World Urbanization Prospects. (2014). United Nations Department of Economic and Social Affairs.