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### Exploring the Impacts of Barriers in Existing Commercial Buildings of Hyderabad

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#### Abstract



*This paper deals with the current issues problems faced by senior citizen's, peoples with baby pram, pregnant women's at commercial buildings of Hyderabad, Sindh. To know what are the problem regarding barriers in the buildings this paper emphasizes on the man-made surroundings and user-friendliness to raise your spirits concept of friendly surroundings. The exploration primarily explains the present position of exceptional individuals to consciousness of this significant part of structures. The documents composed through un-structured dialogues with the experts, experts, designers & planners. A survey carried out to further explore the proposal necessities by the native individuals of Hyderabad. The documents was collected and analyzed through tabular analysis. The study to end with suggests key design parameters of non-toxic, sustainable and environmentally friendly unrestricted design. These factors are considered base necessities for all viable buildings. The questions asked in the interviews were gathered from reviewing different kind of literature on universal design. It was said by the respondents of interviews that there are no any considerations of barrier-free movement in the commercial buildings of Hyderabad like there is lack of ramps and ramp ratio, lack of horizontal and vertical movements without any hindrance, proper parking lots and so on. Respondents gave various suggestion for the barrier-free design present at commercial buildings of Hyderabad, Sindh. User-friendliness in buildings is appropriate essential designed for numerous causes like it creates a well-built situation, delivers level and horizontal access in structures and decreases a great level of difficulty to the consumer and environmental dangers. So it became essential to get rid of architectural obstacles that negatively impact structures surroundings for e.g. ramps curb rises, Lifts, moving staircase, etc. Frequently this approachability is not considered as an elementary necessity by designers & planners. Barrier-free features are now becoming important to all design concepts.*

**Keywords:** User-Friendliness, Barrier-Free, Built Environment

#### Introduction

Hindrances make a condition dangerous and make an unusual state of suffering the client. In any circumstance, more imperatively, hindrances make places be unfriendly, preventing persons the open entrance from demanding support in different circles of life. This ranges from instruction, economic, social, social and many different movements. This loss of chance isn't just a misfortune for the individual concerned yet additionally society's misfortune which passes up a major opportunity for their commitment. Basically, an obstruction causes prohibition and its expulsion is essential for guaranteeing consideration and investment of all in the public eye. (Ikechukwu, 2015)

The concept of this paper is to let you know what is the current condition of the commercial buildings of Hyderabad and what could be done further to develop the barrier-free buildings. This studies analyzed the accessibility and mobility around business buildings of Hyderabad, with its surroundings. Being a place where all varieties of people flow round, it turned into alleged to provide a stress-free movement and wide-ranging availability. Unluckily, there is not any accomplishment with these problems and as effect the vicinity could be exact risky for who uses it. Discrimination is

the primary difficulty for permanent or temporary disable human beings. This occurs due to the fact all spaces are deliberate for most effective one type of human beings: individuals who don't have any sort of ill health. To trade this outline in Pakistan, even though the regulation may be very vast, to begin with its miles vital to be conscious of convenience and whatever it manner. If the government are conscious about that, all of the policies and legal guidelines can be respected in any public and private undertaking (Lid, 2016).

**Research objectives:**

1. To investigate the current status of spaces at entry points of buildings
2. To highlight the problems faced by people in existing designed buildings

**Significance of the study:**

The goal of barrier free design is to provide an environment that supports the independent functioning of individuals so that they can get to, and participate without help, in everyday goings-on. A well-designed situation which is safe, convenient, comfortable, and readily accessible benefits everyone. In an ideal environment with no obstructions, the aim is to create a completely accessible and inclusive space where individuals of all abilities can navigate without any hindrances. This means removing barriers related to orientation, functionality, visual perception, auditory perception, spatial awareness, and mobility. It aims to ensure that every user, regardless of age, physical condition, or the presence of packages, pregnancies, strollers, maintenance carts, or moving equipment, can access and utilize the environment seamlessly. In such a world, even individuals who are typically considered able-bodied would benefit from and appreciate design features that facilitate the use of the environment. These features would provide enhanced simplicity, safety, and functionality for everyone. Moreover, individuals with medically identifiable disabilities would be able to carry out their daily activities without encountering obstacles or difficulties

**Literature Review:**

The main concept of general design idea become based totally on the accumulation mission to ok areas, to be used by altogether. Generic design does now not most effective regulate locations to be utilized by all person, but also contributes to deliver humans again to the social lifestyles, reintegrating them inside the society, with a surroundings greater safe and free of barriers. The large difficulty was to now not exclude all of us due to the fact absolutely everyone has same rights. After 1960's, towns everywhere in the global commenced to evolve themselves towards time-honored design idea. (Souza, 2007) Affirmed that "areas always have its thought based on accessibility for people without a disability. In our modern society, the purpose is to have a greater wide approach, much less segregating".

The primary motive of universal layout is to create areas, services and products, projects and technologies extra available to a big variety of human beings, without any want to edition or changes. In Hyderabad, customary design is still now not used as it should. Despite the fact that there's a wide legislation, there's no effort to use them.

Many elderly people value walking not just as a means of getting from one place to another, but also as a way to maintain their mobility and independence. To support this, it is important to design urban spaces and transportation systems that are accessible and safe for pedestrians of all ages and abilities. This can include features like well-maintained sidewalks, benches for resting, crosswalks with adequate time to cross, and public transportation that is easily accessible and accommodating to those with mobility limitations. By prioritizing the needs of pedestrians and promoting walkability, cities can help support the health and well-being of their aging populations, (Strohmeier, 2016).

These days, Accessibility and mobility are important considerations in designing the built environment to ensure that everyone can access it safely and easily. In fact, ensuring accessibility is not only a moral obligation but also a legal one in many countries.

When designing a built environment, accessibility means that people with disabilities should be able to enter, move around, and use facilities without encountering any barriers or difficulties. This includes accessible parking spaces, ramps, elevators, tactile paving, and other features that make it easy for wheelchair users, people with visual impairments, and other people with disabilities to move around freely.

Mobility, on the other hand, refers to the ease with which people can move around in the built environment, regardless of their age, gender, or ability. This includes having well-designed pedestrian

walkways, safe crossings, and cycling paths that are separate from motorized traffic. By considering both accessibility and mobility in the design of the built environment, we can create a more inclusive and equitable society where everyone can participate fully and enjoy equal opportunities (SHOLIAH, 2001).

The term “accessible” here refers to the aim of allowing access by all. The word “accessible” also point toward that immobilized persons can, without assistance, reach, enter, pass to and from, and make use of all facilities without being made to feel that one is an object of help. In difference of opinion, approachability is an elementary design perception that benefits every person, nonetheless it has special importance for.

- People with incapacities (in several forms, not necessarily wheelchair users);
- The aged (not necessarily infirm or disabled);
- Children (of all sizes); and
- Mommies with small children, and everyone else.

In this research we put “accessibility” in link with hard work in planning structures and surrounding services the built-up environment which accommodate as numerous users as possible. (SHOLIAH, 2001)

Accessibility is essential for ensuring equal participation of people with disabilities in society, including their ability to access public transport. Unfortunately, many public transport terminals and facilities still lack accessibility features, which can prevent people with disabilities from traveling freely and independently.

Physical barriers such as steps, narrow doorways, and inadequate ramps can prevent people with disabilities from accessing public transport. These barriers not only limit their mobility but can also cause accidents and injuries. Therefore, it is important to ensure that public transport facilities are designed and built with accessibility features such as ramps, elevators, and tactile paving to make them easily accessible for all.

Furthermore, (Henry)2009 said the safety and convenience of pedestrian access to public transport facilities should also be considered. By creating safe, convenient, and comfortable pedestrian access to public transport, we can encourage more people, (Griffin)2000) including those with disabilities, to use public transport. This includes providing well-lit pathways, safe crossings, and sufficient space for wheelchairs, prams, and other mobility aids.

Due to this, even as on foot around the towns it's far viable to locate many examples of limitations that ought to not be allowed. Fig.1 suggests the doorway of a Ghani sanatorium pharmacy, that's visited with the aid of all types of people every day. There is a little step which allows simplest human beings and not using a deficiency to head in. It has a dangerous interpretation additionally. Small youngsters and aged can effortlessly fall there. Via regulation, it isn't allowed, but who's in price to inspect and alert approximately this? Nearby governments do not have human beings to try this work. This is not being a difficulty for the town management (Strohmeier, 2016)



Fig. 1. Doorway of a Ghani hospital drug store

#### **Need to remove barriers:**

Obstacles and barriers in the built environment can not only make it difficult for people with disabilities to move around freely and safely but can also exclude them from participating in various

aspects of life, such as education, work, social activities, and cultural events. By removing barriers and creating an environment that is accessible to all, we can promote social inclusion and equal participation in society. It is not only a matter of social justice but also a legal requirement in many countries.

Furthermore, (Hashim) ensuring access for people with disabilities is not only a benefit for them but for society as a whole. People with disabilities have a lot to offer in terms of skills, knowledge, and experience. By creating a barrier-free environment, we can tap into their potential and enable them to contribute to society fully.

In conclusion, creating an environment that is accessible to all is not only a social need but also a legal and moral obligation. By ensuring equal opportunities for all, we can build a more inclusive and equitable society, where everyone can participate and contribute. **(Mangaldas, dec 2004)**

It is essential to provide accessibility features in buildings to ensure that people with disabilities can move around freely and safely. The study conducted by Hashim highlights the importance of providing user-friendly accessibility features both inside and outside buildings, and the need for better guidelines and implementation by the relevant authorities. Furthermore, it is important to recognize that accessibility should not be an afterthought but should be integrated into the design and planning process from the start. As Soares (2007) mentioned, spaces are often designed with the assumption that everyone is able-bodied, which can result in exclusion and isolation for people with disabilities. To overcome this, we need to adopt a more inclusive approach that considers the needs of everyone, regardless of their abilities.

The General Plan plays a crucial role in ensuring that spaces, products, services, operations, and technologies are accessible to a broad range of people without requiring modifications or adjustments. This not only benefits people with disabilities but also creates a more inclusive and welcoming environment for everyone.

In conclusion, providing accessibility features in buildings is essential to ensure that people with disabilities can participate fully in society. By adopting an inclusive approach and integrating accessibility into the design and planning process, we can create a more accessible, welcoming, and equitable built environment for everyone

#### **Limitation of the study:**

The study is limited to commercial buildings of Hyderabad mac bachat, Dawood super market, National bank and kapray autobahn

#### **Qualitative research methodology:**

Qualitative research is a type of research that focuses on exploring and understanding the subjective experiences, attitudes, and behaviors of individuals or groups. It typically involves collecting data through methods such as participant observation, in-depth interviews, focus groups, and case studies. The data is then analyzed using techniques such as thematic analysis or content analysis to identify common themes or patterns in the data. The aim of qualitative research is to provide a rich, descriptive account of the phenomena being studied, often resulting in a narrative or story-like format. This type of research is often used in social sciences, psychology, and healthcare research to gain a deeper understanding of human behavior and experiences

#### **Data collection techniques:**

Data is collected through case studies of existing buildings, questionnaire surveys from visitors of the buildings and interviews with users and experts were collected. The case studies of existing buildings likely provided rich, descriptive accounts of the accessibility features (or lack thereof) in these buildings. The questionnaire surveys may have provided quantitative data on the experiences and perceptions of visitors of the buildings, while the interviews with users and experts likely provided more in-depth, qualitative insights into the accessibility issues faced by people with disabilities. By using multiple methods of data collection, the researchers were able to gather a comprehensive understanding of the accessibility challenges faced by people with disabilities in these buildings

#### **Physical survey:**

Various physical surveys were prepared at four buildings of Hyderabad. In those studies, structural and semi-structural observation conducted about four structures, the case study of commercial buildings and environments must be constructed under Universal Design values. It receives senior, youngsters, injured people, expecting women. These are individuals with some kind of incapacity to

right to use places. Maxbachat, National bank, Kapray autobhan market and Dawood center was selected as a study area for the reason that it is a vital to investigate these building where frequently every age peoples visits.

#### Interviews:

Many interview conducted for data collection method. Some interviews conducted from Architects, policy makers of Hyderabad, some conducted from users of the buildings and some interviews were gathered from senior citizen, mothers with prams etc.

#### Sampling strategy:

The sampling technique, which is used in this research, is snowball-sampling technique. Because at the time of data collection one respondent was recommending the second respondent and the second respondent recommended the third respondents in this way the chain continues.

#### Data analysis method:

The data, which gathered from interviews, physical visits and from questionnaire surveys was analyzed by content analysis through MS excel SPSS.

#### Research Findings and Results

The tables indicates that what kind of issues are faced by users and, how many persons respond to it, and what suggestion did they give. Table: 1 highlights the resident's frequency of visits. Table 2 shows chart estimating availability of elements in buildings in which peoples said that Max bachat and Kapray autobhan are not barrier-free where as in NBP have one internal ramp only and Dawood market have few features of barrier- free but not fully barrier-free.

Sampling			
S. No	Building Types	Names of Building	Estimated visitors/Week
1	Commercial Buildings of Hyderabad	Max Bachat	3500
2		National Bank	4000
3		Kapray autobhan	2500
4		Dawood Center	6160

**Table 1: Frequency of Visits**

S.No	Chart for estimating the availability of External and Internal elements of selected Buildings			
Attributes	Max bachat	NBP	Kapray Autobhan	Dawood Center
External Element	Yes/No	Yes/No	Yes/No	Yes/No
1 Barrier Free Walkway	No	No	No	Yes
2 External Ramp	No	No	Yes	Yes
3 Entrance Sensor Door	No	No	No	Yes
4. Parking for senior citizens	No	No	No	No
5 Directional Signs	No	Yes	No	Yes

**Table 2: chart estimating availability of elements in buildings**

S.No	Chart for estimating the availability of External and Internal elements of selected Buildings			
Attributes	Max bachat	NBP	Kapray autobhan	N
Internal Element	Yes/No	Yes/No	Yes/No	Yes/No
1 Barrier Free Toilet	No	No	No	No
2 Escalator	No	No	No	Yes
3 Internal Staircase	NO	Yes	Yes	Yes
4 Lift in the Building	NO	No	NO	Yes
5 Floor slip resistance	Yes	Yes	Yes	Yes

**Table 3 shows results of four commercial buildings of Hyderabad.**

#### Discussion:

Hence, basic components such as paths, inclines or concrete floors are part of the urban plans to create metropolitan space more reachable. The key matter is about their accurate building, position and maintenance. Fig. 2 illustrations the presence of a rise, but in a in the wrong and unsafe place, in front of a road and not a path. The slope observes with the rule, but nobody tested if is accurate or not.





Fig. 3. Damaged sidewalk of the Hyderabad



Fig. 2. The rise is found on an incorrect place and very vertical

Walkways are fundamentals which are not retained by anyone. They are most of the time with uneven surface, (Fig.3) basic facilities for peoples in current designed buildings are missing and if available they are not usable and not functional. If a person coming to visit with baby stroller or wheelchair they can't move easily in the buildings. Entrance ramp are missing landing is inappropriate. Availability of external and internal features are missing in the buildings building should be for everyone.

#### **Conclusion:**

The exploration work was done on all over the place of four structures of Hyderabad. The constructions include Max bachat, National bank of Pakistan qasimabad ,kapray auto bhan and Dawood centre Auto bhan one and only of the foremost purposes of study was to clarify the existing position of marketable buildings of Hyderabad, concluded by visits, inspections & meetings. It can be concludes from the exploration of study that level of approachability of commercial buildings of Hyderabad is very low. From the forms and interviews from respondents, it is perceived that over-all condition of the built environment in this city is insufficient from the view of accessibility. The respondents of marketable buildings the defendant has very low level of satisfaction with the fitted facilitations. All the exterior and interior characteristics of building regarding the public facilities such as Outside barrier free pedestrian walkway, External ramps, signage, senior citizens parking and toilets, all automatic services, Structure entry foyer Access, sensor system were found very low. In future, this knowledge has great importance to fill the gaps that currently prevail in the commercial building situation in Hyderabad.

#### **Recommendations:**

It investigate the present problems of accessibility in building are connected with barriers and accessibility, mobility. To cut hurdles within the structures of Hyderabad city. Our research is limited in few building of Hyderabad Pakistan. It is suggested that: The proposal necessity from the standards influence have been ignored throughout the structure erection; so, existing circumstance of the edifice wants to be evaluated by individuals who are professional in the study area as well as the restricted people. The situation is recommended that the public services must be planned not

just for immobilized group of people but also to greatest scope as possible, including common people with ‘unseen’ disability such as kids, mothers with baby pram, expectant mothers, and elder people. It is suggested that physical barriers identified through the research could be minimized. Bylaws must be implemented properly.

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