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Pedestrian Experiences in a Megacity: A Case Study of Walkability in Johar Block-15, Karachi, Pakistan

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Abstract

*In the dynamic urban landscape of Johar Block-15, Karachi, this research investigates residents' perceptions of walkability, a crucial aspect of urban life. Survey data reveals significant concerns about safety, overall walkability, cleanliness, infrastructure adequacy, and connectivity to amenities. Most respondents express dissatisfaction and emphasize prioritizing and investing in enhancing walkability. Accessibility problems resulting from choking and poor roads also affect the area's pedestrian host factor in terms of traffic and maintenance. However, 68.18% of the respondents use walking for small distances, showing the relevance of walking in developed countries' mobility systems. These recommendations will be helpful to urban planners and policymakers in putting a focus on improving the quality of life of the people living in Johar Block-15 and every other block.*

**Keywords:** Pedestrian Accessibility, Environment, Karachi City, Live Perception; Pedestrian Movement, Environment, Urban Planning, Sustainable Environment

Authors:

**Afraz Ahmed Memon:** (Corresponding Author)

MCRP (Master of City and Regional Planning),  
Department of City and Regional Planning, Mehran  
University of Engineering and Technology, Jamshoro,  
Sindh, Pakistan.

(Email: [afrazamemon@gmail.com](mailto:afrazamemon@gmail.com))

**Imtiaz Ahmed Chandio:** Professor, Department of City and  
Regional Planning, Mehran University of Engineering  
and Technology, Jamshoro, Sindh, Pakistan.

**Rabia Soomro:** Assistant Professor, Department of Civil  
Engineering, Mehran University of Engineering and  
Technology Shaheed Zulfiqar Ali Bhutto Campus,  
Khairpur Mir's, Sindh, Pakistan.

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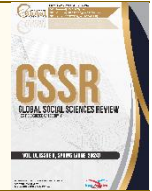
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## Title

### Pedestrian Experiences in a Megacity: A Case Study of Walkability in Johar Block-15, Karachi, Pakistan

#### Authors:

**Afraz Ahmed Memon:** (Corresponding Author)

MCRP (Master of City and Regional Planning),  
Department of City and Regional Planning, Mehran  
University of Engineering and Technology,  
Jamshoro, Sindh, Pakistan.

(Email: [afrazamemon@gmail.com](mailto:afrazamemon@gmail.com))

**Imtiaz Ahmed Chandio:** Professor, Department of City and  
Regional Planning, Mehran University of  
Engineering and Technology, Jamshoro, Sindh,  
Pakistan.

**Rabia Soomro:** Assistant Professor, Department of  
Civil Engineering, Mehran University of  
Engineering and Technology Shaheed Zulfiqar Ali  
Bhutto Campus, Khairpur Mir's, Sindh, Pakistan.

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#### Abstract

*In the dynamic urban landscape of Johar Block-15, Karachi, this research investigates residents' perceptions of walkability, a crucial aspect of urban life. Survey data reveals significant concerns about safety, overall walkability, cleanliness, infrastructure adequacy, and connectivity to amenities. Most respondents express dissatisfaction and emphasize prioritizing and investing in enhancing walkability. Accessibility problems resulting from choking and poor roads also affect the area's pedestrian host factor in terms of traffic and maintenance. However, 68.18% of the respondents use walking for small distances, showing the relevance of walking in developed countries' mobility systems. These recommendations will be helpful to urban planners and policymakers in putting a focus on improving the quality of life of the people living in Johar Block-15 and every other block.*

**Keywords:** [Pedestrian Accessibility](#), [Environment](#), [Karachi City](#), [Live Perception](#), [Pedestrian Movement](#), [Environment](#), [Urban Planning](#), [Sustainable Environment](#)

#### Introduction

Spaces in urban areas today are experiencing dramatic metamorphoses globally due to urban expansion, population increase, and shifts in human life cycles. (Lo, 2009; Marvi et al., 2024). Regarding the quality of life in the urban environment, walkability is one of the most essential factors receiving focused attention

recently. (Bhatti et al., 2021; Brohi et al., 2023; Memon et al., 2020; Soomro et al., 2021; Tahseen, n.d). This means the level to which an area accommodates movement through walking is easily accessible and safe for pedestrians to use walking as a mode of transport. (Qureshi et al., 2022; Van Dyck et al., 2008).

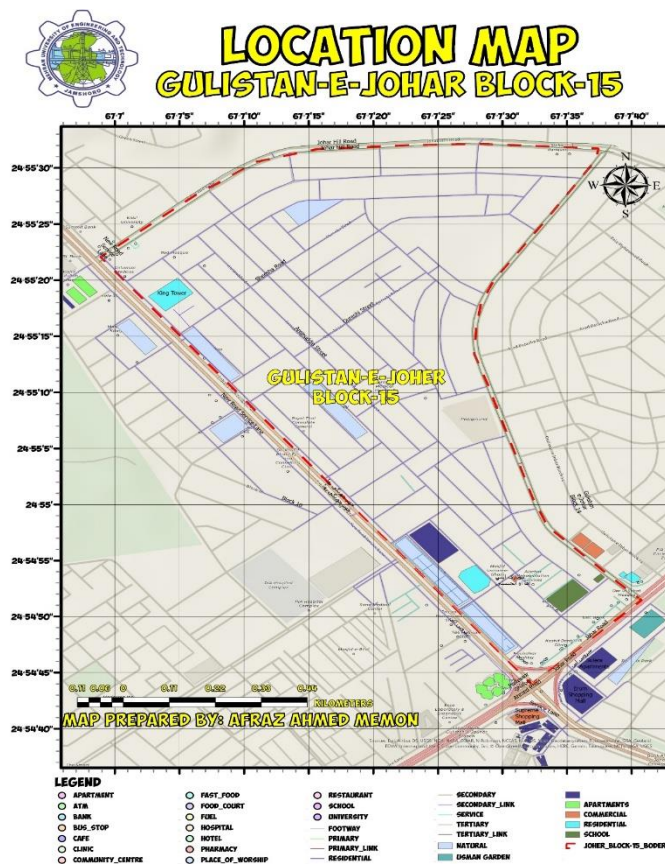


Within the city of Karachi, Pakistan, applying the Johar Block-15 focus, the experience of urban lifestyle is alive yet highly intricate (Brohi et al., 2021; Gill et al., 2021; Jun & Hur, 2015; Talpur et al., 2014). Whereas there are still changes that are physically happening in the city, or as the city changes, it becomes more important to know the community's perception of walkability (Gul, 2017; Gul et al., 2016; Kalwar et al., 2021; Kalwar et al., 2019; Khan & Khan, 2018; Memon et al., 2014; Sarkar & Webster, 2017). Walkability is not just the structure of available sidewalks and crossways only but also a broader context comprising of connectivity, safety, pleasant appearance of the streets and other requirements of streets and availability of other necessary facilities (Khan & Khan, 2018; MEMON, 2018; Memon, Kalwar, Sahito, Talpur, et al., 2021; Memon, Napiah, Talpur, et al., 2016; Memon et al., 2022).

This research aims to establish an understanding of different aspects of the perception of walkability among people in Johar Block-15, Karachi. In this study, the relations between the architectural design features and the

community's choice on one hand, and the walkability and the differently oriented daily life of the residents on the other hand are investigated to reveal useful information on the factors based on the context of walkability. The present study has been conducted in the context of Karachi due to the following reasons: First, Karachi is one of the most populous cities globally, which calls for a large and heterogeneous sample for the study. Second, Karachi being an urban centre has different cultural, socio-economic and urban concerns, which makes the setting appropriate for the research questions (Gota et al., 2010; Gul et al., 2020; Irfan Ahmed et al., 2016; Memon, Kalwar, Sahito, & Napiah, 2021; Memon et al., 2021; Memon, Napiah, Hussain, et al., 2016; Soomro et al., 2022). As such, it is believed that the conclusions of this research will not only serve the purpose of filling a gap in the discourse literature of urban studies but also assist urban planners, policymakers, and authorities of Johar Block-15 and other regions to design better accessibility to neighborhoods and making those areas healthier, sustainable, and more livable for the communities that live there.

Figure 1



### **Aim of the Research**

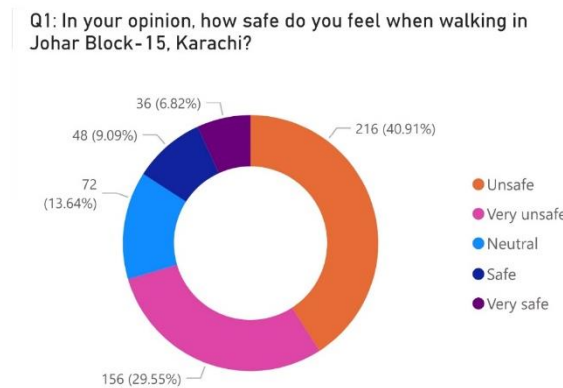
Therefore, this research aims to measure and analyze residents' perception of walkability in Johar Block-15, Karachi, Pakistan.

### **Research Methodology**

Self-completed survey questionnaires were given to the residents of Johar Block-15, Karachi, Pakistan,

### **Result and Discussion**

**Figure 2**



According to a recent questionnaire survey conducted on the residents of Johar Block-15, Karachi, a poor perception of security was observed when walking in the neighborhood. Regarding the fear level, 42.4% of the respondents felt unsafe or unsafe while walking, and 28.06% felt slightly unsafe while walking. Watches data shows that insecurity is a persistent feeling among residents.

More specifically, respondents assigned a rating of 3.91 to the area, which indicates some level of concern about a 'somewhat safe' and a 'somewhat unsafe' area. However, 29.55% of respondents rated the area as very unsafe, which even then underlines that a part of the population perceives increased danger when walking.

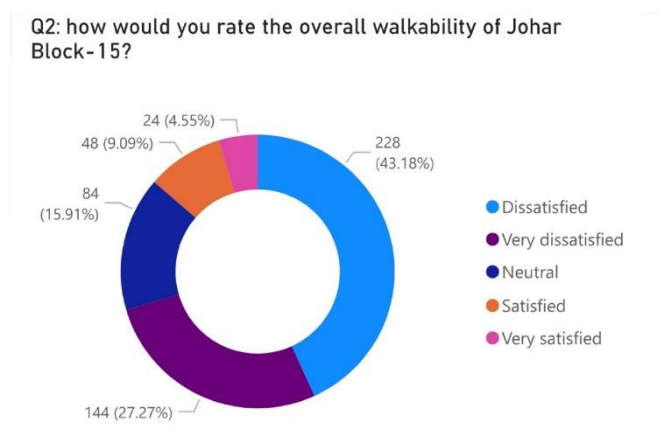
Slightly over half (13.64%) were neutral on the area's safety, whereas only 15.91% of Cardiotrans lobbyists regarded the area as safe or very safe. This shows that only a meager number of residents are assured of safety every time they walk at night within Johar Block-15.

to understand their awareness of walkability. The questions included in the inquiry were intended to cover all aspects of the walkability facilities already built in Johar Block-15. In essence, the general purpose of this work is to provide more profound explicatory knowledge of essential factors antecedent to walkability and its implications on the daily activities of dwellers.

There are underlying factors that can be identified from the survey related to safety concerns, including the following: These may, therefore, include poor lighting at night, perceived absence of security personnel, occurrence of criminal activities, or feelings of social incivility. Consequently, these root causes are addressed if the area is to be made safe in the view of the community.

Conclusively, the outcomes of this survey provide helpful information for community-oriented admins, authoritative bodies, and police departments. This calls for specific measures to improve safety actions to involve the public and increase safety for the occupants of Johar Block-15. When treated according to the viewpoints indicated by the survey, authorities stand a chance to enhance the well-being of society and general community health.

Figure 3



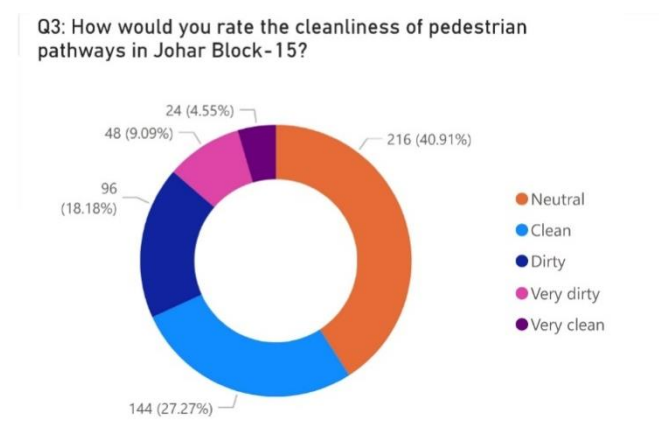
From the data provided on the question about the rate of overall walkability of Johar Block 15, we have the following breakdown:

- Dissatisfied: 43.18%
- Very dissatisfied: 27.27%
- Neutral: 15.91%
- Satisfied: 9.09%

- Very satisfied: 4.55%

Analyzing this data, it can be seen that a significant majority, comprising 70.45%, of the respondents expressed dissatisfaction with the overall walkability of Johar Block 15. The survey responses indicate a prevailing discontent with walkability in this area.

Figure 4



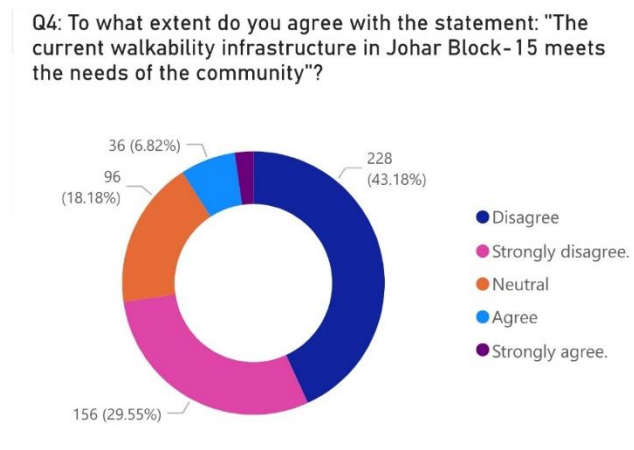
Based on the data from the question about the rate of cleanliness of pedestrian pathways in Block 15, the following analysis can be made:

- Neutral: 40.91%
- Clean: 27.27%
- Dirty: 18.18%
- Filthy: 9.09%
- Very clean: 4.55%

From this data, it can be analyzed that the majority of the respondents, 40.91%, chose the "neutral"

option, indicating a lack of strong opinion about the cleanliness of pedestrian pathways in Block 15. However, the combined percentage of those who expressed negative views (dirty and very dirty) is 27.27%, slightly higher than the 27.27% who chose "clean." This suggests some concern about the cleanliness of pedestrian pathways in the area, but a significant portion of respondents did not express a strong opinion on the matter.

Figure 5

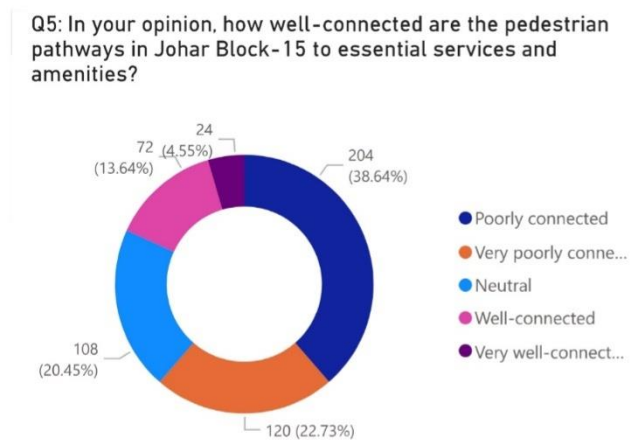


Based on the responses to the question about the extent to which the current walkability infrastructure in Johar Block 15 meets the needs of the community, the following analysis can be made:

- Disagree: 43.18%
- Strongly disagree: 29.55%
- Neutral: 18.18%
- Agree: 6.82%
- Strongly agree: 2.27%

From this data, it can be analyzed that a majority of the respondents, 43.18%, disagreed with the statement, indicating that they believe the current walkability infrastructure does not adequately meet the community's needs. Furthermore, combining the percentages of those who expressed strong disagreement and disagreement amounts to 72.73%, signifying a prevalent dissatisfaction with the current walkability infrastructure in Johar Block 15.

Figure 6



Based on the responses to the question about the connectivity of pedestrian pathways in Johar Block-15 to essential services and amenities, the following analysis can be made:

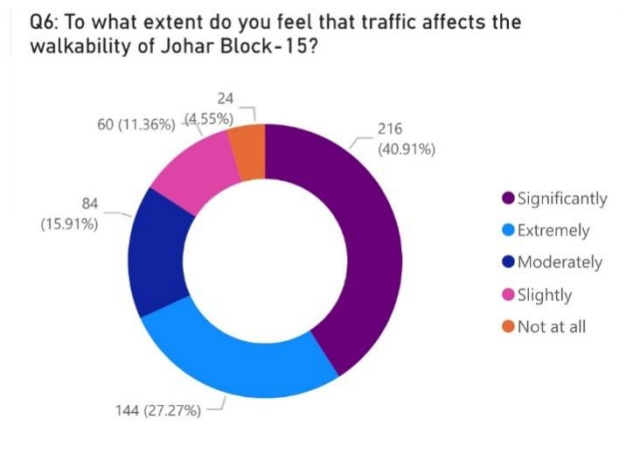
- Poorly connected: 38.64%
- Very poorly connected: 22.73%
- Neutral: 20.45%

From this data, it can be analyzed that most respondents, 38.64%, feel that the pedestrian pathways in Johar Block-15 are poorly connected to essential services and amenities. Furthermore, when combining the percentages of those who

expressed poor and very poor connectivity, it amounts to 61.37%, indicating a prevalent dissatisfaction with the connectivity of pedestrian

pathways to essential services and amenities in the area.

Figure 7

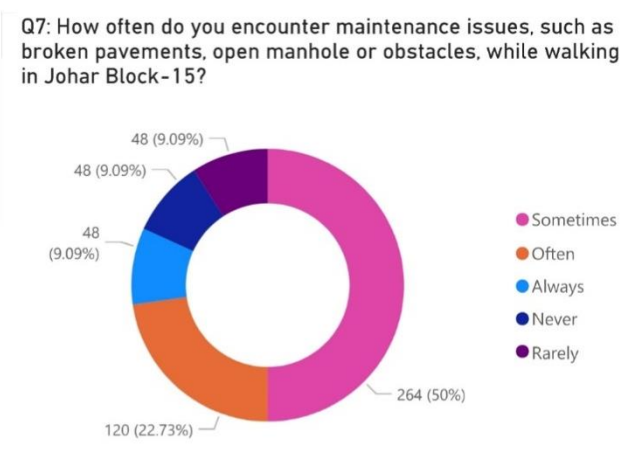


Based on the responses to the question about the extent to which traffic affects the walkability of Johar Block-15, the following analysis can be made:

- Significantly: 40.91%
- Extremely: 22.27%
- Moderately: 15.91%
- Slightly: 11.36%
- Very not at all: 4.55%

From this data, it can be analyzed that the majority of the respondents, 40.91%, feel that traffic significantly affects the walkability of Johar Block-15. Additionally, when combining the percentages of those who chose significantly and excessively, it amounts to 63.18%, indicating a prevalent sentiment of the substantial impact of traffic on the walkability of the area.

Figure 8



Based on the responses to the question about the frequency of encountering maintenance issues while walking in Johar Block-15, the following analysis can be made:

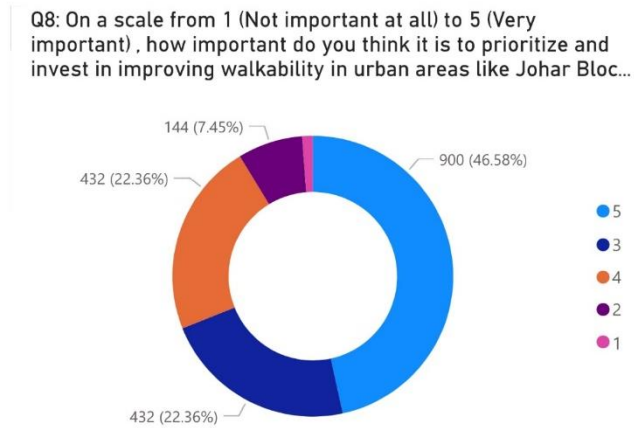
- Sometimes: 50%
- Often: 22.73%

- Always: 9.09%
- Rarely: 9.09%
- Never: 9.09%

From this data, it can be analyzed that the majority of the respondents, 50%, encounter maintenance issues such as broken pavements, open

maintenance holes, or obstacles sometimes while walking in Johar Block-15. Additionally, when combining the percentages of those who encounter these issues often and consistently, it amounts to

40.82%, indicating a prevalent occurrence of maintenance issues that impact walkability in the area.



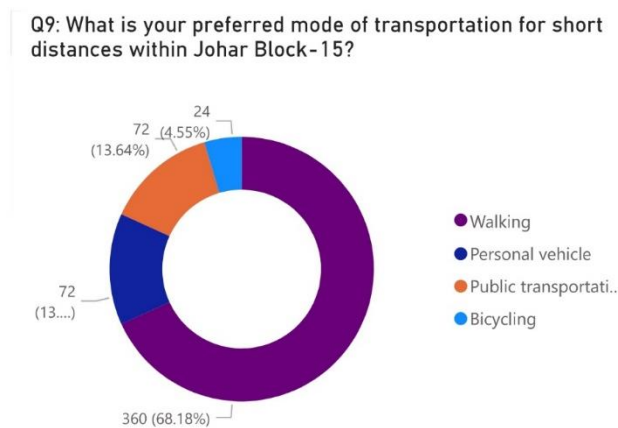
**Figure 9**

Based on the responses to the question about the importance of prioritizing and investing in improving walkability in urban areas like Johar Block-15, the following analysis can be made:

- 1 (Not important at all): 7.45%
- 2: 7.45%
- 3: 22.36%
- 4: 22.36%
- 5 (Very important): 46.58%

From this data, it can be analyzed that the majority of the respondents, 46.58%, believe it is essential to prioritize and invest in improving walkability in urban areas like Johar Block-15 and additionally, combining the percentages of those who chose 4 and 5 amounts to 68.94%, indicating a significant emphasis on investing in enhancing walkability in urban areas.

**Figure 10**



Based on the responses to the question about the preferred mode of transportation for short distances within Johar Block-15, the following analysis can be made:

- Walking: 68.18%
- Personal vehicle: 13%
- Public transport: 13.64%
- Bicycling: 4.55%

From this data, it can be analyzed that the majority of the respondents, 68.18%, prefer walking as their mode of transportation for short distances within Johar Block-15. This indicates a firm reliance on pedestrian mobility for short trips within the area.

### **Conclusion**

An analysis of the self-generated survey data shows a high level of agreement on the dire need for enhancement of the walkability infrastructure of Johar Block-15. Most respondents felt that current conditions are not entirely satisfying regarding pedestrian facilities, and they stressed that pedestrian facilities should be considered a priority and that investment should be made to encourage people to walk more in a city.

The survey results support the importance of walkable infrastructure in creating a healthier, sustainable, and equitable neighborhood. Concerning pedestrians' concerns, the following improvements were recommended: the expansion of sidewalks, access to good footpaths, and enough good lighting at night and secure pedestrian crossings. Such improvements would not only

improve the overall quality of the pedestrian scape but also benefit in the reduction of traffic and boosting proactivity of the populace.

Moreover, the survey responses clearly indicated strong support for using walking as the most preferred mode of transport for short distances. This fact underlines the importance of the pedestrian environment in providing access across the local area and managing car dependency. Suppose authorities want to improve the quality of life within the community. In that case, they will need to support such concepts as walkability. Because, through such measures, authorities can make a positive shift towards sustainability within a society.

Therefore, the above survey findings support a strong and mandating rationale for enhancing walkability in the Johar Block-15. So when authorities recognize the shortcomings of pedestrian improvement and put more money into infrastructure to encourage pedestrians, authorities can help make the urban environment lively, more robust, and equitable for all.

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