



STUDY ON PEDESTRIAN'S CONSTRAINTS RELATED TO WALKABILITY IN COIMBATORE CITY

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Abstract

Walking is known as the sustainable mode of travel for a shorter distance. Walking must be a enjoyment and pleasant. The benefits of walkability can be associated with environment, health, community, cost, etc. Walking is influenced by the walkability infrastructure and inadequacy in it hinders the walking and changes the perception towards the same over time. This walkability becomes importance especially in cities where there are heavy traffics and congestions. Understand the significance of the walkability, the present study tries to understand the pedestrians opinion towards the walkability. Coimbatore district was considered for the present study and a sample of 595 pedestrians participated in the survey. The findings revealed that, opinion towards the walkability was found to be poor among the pedestrians who are due to the ongoing projects in the city.

Key words: Walkability, Pedestrians, Constraints, Crossings, Pathways.

Introduction

The increasing urbanization and increase in vehicle in the cities have lead to the focus on walkability. It is often the economic, social and environmental with the limited resources of energy, space, environment and water. It has become an important issue to be addressed today due to the increasing number of fatal accidents. People face numerous problems related to walkability like lack of footpaths, quality of footpaths, blocks in footpaths, lack of cleanliness, lack of amenities like water, lack of proper lighting, etc. Thus, people find it difficult to walk and tend to use other mode of mobility like two /three wheelers, bus, car, etc. This leads to increase in traffic and congestion in the cities and also leads to environmental pollution due to increase in carbon emission. Thus, the culture of walking is been shifted to vehicles and people even for nearby travel depend on vehicles.

On the other side, the attitude towards walking is not encouraging but due to the increase in health issues, people tend to walk as per the prescriptions from the health professional. The change in attitude towards walking is gradually moving over a positive notion. Thus, this is the time for the government to encourage the people to walk by providing them adequate and quality pathways and footpaths with necessary amenities and facilities. This also helps to control the accidents faced by pedestrians due to lack of walkability infrastructure. There are numerous benefits of walkability which includes good health, cost savings, environmental protection, mobility, avoid accident, increases social relationships, improves quality of life of people and happiness.

Thus, walkability becomes an important issue at this juncture and must be addressed appropriately to have a healthy and safe society. In this regards, the present study was carried out to understand the walkability status of the selected places in Coimbatore. The Coimbatore district is one of the fast



growing cities in Tamilnadu and the need for adequate walkability infrastructure becomes inevitable. Thus, this study focuses on the

Review of Literature

Kinyingi, J., et.al (2020) Their findings revealed that majority of the respondents are happy about the width of the street and movement of the people increases with regard to increase in width of the streets. Nearly half of them opined that their highways are congested but it was maintained clean. Their study recommended that, pedestrian crossing across all stress must be improved to manage the traffic. Athanasios et.al (2016) have stated that, walkable cities provides many advantages to the people like personal and road safety, combined transportation, better health, convenience, accessibility to destination, etc. Forsyth, (2015) have stated that, walkability is influenced by various factors such as block length, street enclosure, building orientation, building scale and variety. The other factors related to socio-economic aspects like preferences, income, climate, culture also influence the walkability. Quednau, (2018) Street walkability depends on how conducive is the built environment for walking. A walkable stress must make the walking pleasant and safe; people must be attracted towards it for walking and must be free from congestion. Luis A. Guzman. Et.al (2022) found a significant difference in perception on quality of pedestrian infrastructure. The study also reveals that significant variation was found based on socioeconomic level and age range. James Leather (2011) have stated that walking is still one of the main modes of transport in cities but the facilities are not adequate to it. There are more need to be done with regard to walkability in Asian cities such as provision related to disabled, pathways and amenities.

Objectives

1. To study the personal profile of the pedestrians.
2. To examine the pedestrian’s constraints related to walkability in Coimbatore city.

Methodology

The researcher has adopted explanatory cross sectional design for this study. Three areas in Coimbatore (residential area, educational area and transit hub) were randomly selected for the study. The researcher has adopted purposive sampling to select the pedestrians for the study. Field walkability survey was conducted using Global Walkability Index scale. The data was analyzed using simple percentage analysis, mean and standard deviation.

Analysis and Interpretation

I. Personal Variables

The findings related to the personal variables reveal that, 56.5 percent of them are male and 43.5 percent of them are female. Half of the age group of the pedestrians was found to be below 25 years. Majority of their travel mode is walking. Half of the respondents average travel time is less than 15 minutes. The average trip length of was found to be less than 3 km for nearly half of the respondents.

II. Pedestrians constraints

Table No: 1
Distribution of the Respondents based on Reason Poor Walkability

Variables	Attributes	No. of Respondents	Percentage
Reason Poor Walkability	Non-functional lights	207	34.8
	Inadequate lights	340	57.1
	Narrow footpaths	31	5.2



	Poorly maintained footpaths	17	2.9
Rating on Walkability	Worst	358	60.2
	Bad	162	27.2
	Okay	67	11.3
	Good	8	1.3
Crossing preference	At grade	268	45.0
	Skywalk	253	42.5
	Subways	74	12.4
Improving Facilities	Easy access for people with special abilities	175	29.4
	Improved street lighting	352	59.2
	Wider, level and clean sidewalks/footpaths	42	7.1
	Reduced and slow traffic on road	24	4.0
	More crossing points	2	.3
Willingness to Walk	<50 meters	195	32.8
	51 to 100 meters	301	50.6
	101 to 200 meters	99	16.6

The above table depicts that, more than half of the respondents have reasoned inadequate lights as the reason for their poor walkability, followed by non-functional lights, narrow footpaths and poorly maintained footpaths. The table also reveals that, 60.2 percent of them have rated worst on walkability, 27.2 rated it as bad, 11.3 rated it as okay and 1.3 rated it as good. Nearly than half of the respondents prefer at grades for crossing, 42.5 percent of them prefer skyways and 12.4 percent of them prefer subways for crossing. More than half of the respondents wants improvement in street lights, 29.4 percent wants easy access for people with special abilities, remaining wants wider level and clean sidewalks/footpaths, reduced and slow traffic on road and more crossing points. The table reveals that, 32.8 percent of them willing to walk below 50 meters, half of them willing to walk between 51 to 100 meters and 16.6 percent willing to walk between 101 to 200 meters.

Salient findings

- More than half of the respondents have reasoned inadequate lights as the reason for their poor walkability.
- 60.2 percent of them have rated worst on walkability.
- Nearly than half of the respondents prefer at grades for crossing.
- 42.5 percent of them prefer skyways.
- More than half of the respondents want improvement in street lights.
- Half of them willing to walk between 51 to 100 meters.

Discussion

The attitude towards the walking is found to be positive among the people but the infrastructure availability was not found to be adequate. Hence, majority of the people felt dissatisfied with the present condition and felt that it hinders their walkability. It was noticed that, infrastructure development projects are on progress through the Coimbatore city and because of it majority of the places are congested with heavy traffic and the pathways are blocked. This disturbance has affected



the walkability of the people. Once the works are completed people will have a adequate walkability facilities with adequate amenities. On the other side, the residential area lacks adequate lighting facilities which are evident from the people's responses. The local government has to take adequate steps to improve the lighting facilities in the residential areas and others pathways with proper maintenance.

Conclusion

The study concludes that there are some dissatisfaction among the people towards the walkability facilities in the areas surveyed which is due to the present projects taken up in the city. There are few aspects like lighting, cleanliness, maintenance, etc are felt to be poor by the people and the same has to be addressed by the local government which will improve the walkability of the people.

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