Study on Parking - Review

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Abstract - *Know a day's parking is a big problem for huge populated countries like India, China etc. This study shall be carried out with parking analysis at Chandigarh, India which would be use as a reference for other parking for an effective design and make it easier/comfort to consumer. Parking view/outlines plays an important role to understand the existing behavior and effective use of said parking. In this study main focus on to resolve parking problems, to understand the requirement of an individual consumer, angle of parking with maximum input in effective manners.*

*Key Words***:** Parking analysis, angular parking.

1. INTRODUCTION

With the high percentage of vehicle ownership, parking has become a conflicting and confusing situation for a number of people. Whether at an airport, bus stations and shopping centers, problems with parking are an everyday occurrence. Lack of accessible parking can hurt local business and decrease the quality of life for residents. Due to the importance of parking, cities study and analyze parking programs and performance on an ongoing basis.   Parking is one of the major problems that is created by the increasing road traffic. It is an impact of transport development. The availability of less space in urban areas has increased the demand for parking space especially in areas like Central business district. This affects the mode choice also. This has a great economical impact. Before taking any measures for the betterment of conditions, data regarding availability of parking space, extent of its usage and parking demand is essential. It is also required to estimate the parking fares also. Parking surveys are intended to provide all these information. Since the duration of parking varies with different vehicles, several statistics are used to access the parking need.   A parking facility is generally defined as "Any building, structure, land, right of way, equipment's or facility used or useful in connection with the construction, enlargement, development, maintenance or operation of any area or building for off-street parking of motor vehicles". Nowadays two wheeler or car parking steals the most valuable asset every individual has i.e. time. A lot of time is wasted in finding for an available parking space. Lack of parking spaces is an additional source of traffic congestion and pollution. More traffic means more pollution. Vehicle's CO_2 emission is higher while you are circling around looking for available parking spot than you could just drive to your spot and park the vehicle. Chandigarh can today claim to be one of the best planned cities in the world. Unlike most of the existing cities, it was first planned and then developed. The basic planning unit of the city is sectors. Each sector is intended to be a self contained unit which provides for the basic needs for every family. Shops, educational, health buildings, and open spaces are to be found in each sector to satisfy the needs of the body and mind, so there is a need of good parking facility to be available all the time to meet the need of peoples. For developing a parking facility a good knowledge of parking analysis and study is made. The size of the sector (consisting of a rectangular 1.2 km by 0.8 km with a shopping street cutting across it) is such that essential amenities are available within easy walking distance. No house is more than 10 minutes of walking distance from the farthest shop in the sector. There are two type of parking pattern:

1. **On street parking**: It is having two types:- a.) Parallel parking

b.) Angle parking

2. **Off street parking**:

Off street parking are having five types:- a.) Surface car parking.

b.) Multistory car parking. c.) Roof parking.

d.) Mechanical car parking. e.) Underground car parking.

LITERATURE REVIEW

I have done a lot of research work related to the research work I have opted. I explored various research papers related to planning proposal for parking facility , types of parking and parking management system. Some of the researches that were closely related to my research work are as follows:

1] Chudasama and Dr. Zala (2012) [1] Parking evaluation In his paper authors discussed on The study includes detail of volume and parking data analysis for the study section. The study was a commercial hub of Anand city. Data was collected both primary and secondary sources. Primary data collected by performing surveys of study area and secondary data were one's that were collected from secondary sources without performing survey. They conducted four types of field survey traffic volume count survey, parking space inventory survey, land use survey and parking survey. Volume count survey done with vedio recording method and parking survey done used number plate registration technique.data was collected than they analysis and gave the conclusion

2] Tiwari and Dr. Prof. Deepak Supriti Dubey (2013) [2] A study of Bhopal with reference to Car Users satisfaction for Parking Space and Accessibility to the Market. In his paper he had conclude that during weekends and festive seasons the demand for parking of vehicles exceeds the supply and thus causes a negative impact on retailer's sale and not only this, it causes severe dissatisfaction while going for shopping. This paper studies the different aspects of external variables which effects the shopper's satisfaction for shopping. The study is descriptive in nature and a self-designed questionnaire was used to collect the primary insight. In an on street questionnaire, the retailers and consumers were asked their about commutation in the market area that can be made easily by existing policy,   parking maximums, remote parking different parking pricing v)multilevel parking Present study is an attempt to explore the issues related to parameters mentioned above. The questionnaires are developed for primary data collection and secondary is collected through books, journals and net surfing This is a survey work to find the solution of the problems in designing an optimal parking space. parking management and accessibility to the market and their related factors are variable of shopping satisfaction to the different shoppers from different market. The data which was collected by questionnaires is processed through SPSS. In this study variables are considered to determine the level of shopping satisfaction among shoppers of Bhopal city. Parking space management is comparatively less in Old Bhopal as compared to New Bhopal. And he suggests the multilevel parking would be better optio. The relationship between various factors of shopping satisfaction with the overall satisfaction shows that there is less positive overall satisfaction in the shopper.

3] Mrs Priyanka Kolhar(2012) [3] offstreet parking management plan for Dharwad city, Karnataka, India: In this paper Author investigated parking practise with the parking accumulation and supply survey. Parking demand models were developed with the help of SPSS software. She had done three types of survey parking space survey, accumulation survey she used registration plate method. Interview designed for willingness to pay analysis. The study of parking duration analysis suggests that short duration parking is high. Hence, parking turn-over is high causing congestion on the streets. To reduce this, heavy parking fee is to be levied on the short duration parking vehicles. To solve the parking problems immediately short-term solution can be adopted with congestion pricing as, operation and maintenance cost is very much less for on-street parking management rather than off-street and even IRR is high in on- street parking. But, based on the future parking demand in the study areas long term management plan (provision of multi-level parking) is preferred.
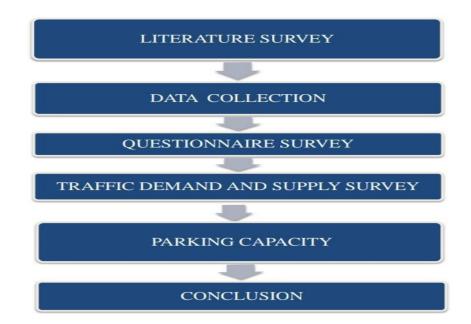
4] Shiftan and Burd-Eden (2001) [6] also use stated preference survey data to model the likely response of drivers to parking policy alternative (increase in parking costs and decrease in parking availability). They found that workers are more likely to change mode or time of travel than to change destination or activity. They also found that non-workers are more sensible to policies than workers.

METHODOLOGY

The method to evaluate the use of parking spaces from OD survey data was first developed by Tong et.al and Morency et al for the Montreal area. The validation approach proposed in this work combines several methods, some of which are inspired by well known traditional methods while others rely on newer tools. For a given area under study it is composed of following main steps presented in figure below:

1) Selection of parking area for study.

2) Site visit personally for collecting data.

3) Analyse collected data and conclusion shall be made.

OBJECTIVES

The main objectives of the study are:

1) To determine existing parking demand and its characteristics.

2) To find out peak hour.

3) To determine maximum demands.

4) To determine parking problems of an existing parking.

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