



Identifying Important Features of Paratransit Modes in Sylhet City, Bangladesh: A Case Study Based on Travelers Perception

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Abstract

Paratransit modes are familiar modes of transportation in Sylhet city and across Bangladesh. Field investigation marked the existence of motorized, non-motorized and battery driven paratransit modes across city. Though non-motorized vehicles such as rickshaws and easy bike were found in every survey location but people preferred motorized transportation. Young age range people mostly used this media as transportation. Students and service holders were most predominant type of users found from the survey. User satisfaction was used for measuring important characteristics of paratransit modes and the results indicated that about 70% people fall somewhere between satisfied to somewhat satisfied. A Multinomial and an Ordered Logit model were utilized to analyze passenger satisfaction and both of them agreed that female passengers were dissatisfied regarding present paratransit systems. Fitness and cleanliness were considered as influential features of the existing modes. Lack of flexible movement of paratransit modes especially motorized ones around city roads was the main driving force of making the mode unreliable to users. People showed positive attitude towards overall service, safety and security of paratransit vehicles operating in Sylhet city. The fare structure made this transport system popular, but operational shortcomings such as congestion make the prospect of existing modes questionable.

Keywords: Paratransit; Motorized; Satisfaction; Flexibility; Congestion.

1. Introduction

Effective transportation is essential for people living in the quickly developing urban world. The demand of travelling has increased significantly in developing countries and now far exceeds for available transport modes [1]. Therefore, local public transportation in developing countries fail to meet the demand of public mobility [2]. Poor service quality, meagre output, abysmal maintenance strategy, and overloading were observed as driving factors for public transport failing to meet the demand of public mobility [3-5]. As a result, people were embracing different paratransit modes (motorized and non-motorized) which provide more time efficient travel to reach the desired destination [6].

Paratransit is a mode of transport service which is affordable and can provide travelers a feeling of using personalized vehicles [7]. Paratransit provides significant advantages to both drivers and users on the basis of accessibility, flexibility of movement, easy and unimpeded lane movement, low operating and maintenance cost [2, 8]. In many developed nations, paratransit modes are used to serve people with disabilities [9-10]. The usage of this particular transport systems are two fold for developed and developing countries. In developed countries, paratransit is used as a demand response system, while in developing countries, (lower living standard, densely populated and availability of labor) it is used for

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