

AN ANALYSIS ON EXISTING CONDITION OF INTER DISTRICT BUS TERMINALS OF CHITTAGONG CITY

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ABSTRACT

Bus is very important mode of transportation for a city. The significance of integrated and balanced transportation system, especially planned logistics is indispensable for communication efficiency and sustainable development of any country. The inter-district bus terminals, as a key component of transport logistics play a vital role in assuring intra-urban mobility and inter-regional movement competitiveness. Chittagong is the second largest city and commercial capital of Bangladesh. It has two inter-district bus terminals and some prime Bus Stations. Due to the city's location significance, spatial influence and economic role in the national context, the importance of these three bus terminals are crucial in facilitating sound passenger movement from Chittagong to the rest of the country and vice versa. The necessity, therefore, to make these existing terminal facilities more organized, well-served and functionally competent is the demand of the time. With the backdrop, this paper focuses on existing condition analysis of these inter-district bus terminals in reference to their regulatory framework, infrastructure facilities and management system. The outcome indicated deviation of the facility provisions in comparison to prescribed regulations and their inadequacy in relation to the increasing demand of its passengers.

Keywords: Transportation, Inter-district bus terminal, Passenger facilities, Chittagong city

INTRODUCTION

“A bus terminal is defined as an area- way from the general flow of road vehicle, which gives buses and coaches the freedom of movement to set down and pick up passengers in safety and comfort. Intercity, inter-district and sometimes international buses use this structure for the pickup and drop off of passengers.” (Hoque, 2011). A bus terminal is very important place for passengers as they stay there for board and alight from buses for their long intercity journey. The location site of a bus terminal is need to consider for better service. “A list of broad infra-structural requirements has been drawn up, through literature review. These requirements are the essential ingredients for planning and designing bus terminals, and have been classified as primary infrastructure requirements and supporting infrastructure requirements.”(Gandhi, et al., 2015). The primary infrastructure requirements i. Passenger areas- Ticketing and queuing , Passenger waiting areas, Passenger conveniences (drinking water facilities and toilets), Passenger circulation, Boarding/Departing areas, Facility entry, Tourist information, Security, including CCTV cameras, Retail, concessions and lease space, Dormitories and lodging (if required), Cloak room, Railway reservation ii. Areas for terminal staff- Revenue office, Security and information, Ticketing booth, Resting room, Staff conveniences (drinking water facilities and toilets), Canteen, Maintenance staff (chairs and lockers), Control room (CCTV surveillance), iii. Areas for bus staff- Canteen, Resting areas, lodging areas (if required), Bus staff conveniences (drinking water facilities and toilets). The supporting infrastructure requirements include provision for Feeder infrastructure,

Seating, Landscaping, Lighting, Way finding (Passenger Information Systems (PIS), Signage and Marking), Public art. “The design and provision of services—such as lighting, drainage, firefighting, and information systems—is an essential component of bus terminal design.” (Gandhi, et al., 2015) In the report, Hoque divided the required facilities into three categories. For example, The facilities to be provided for passengers (Public toilets, A bus and coach information centers and Cafes nearby, Waiting room facilities, Booking system, Left luggage and lost property offices), The facilities to be provided for staff (Canteen and Toilets, A recreation area, Locker rooms, Pay-in facilities) and Facilities for bus maintenance (Proper inspection and repair, Servicing of buses and coaches, Fuelling, Washing, Garaging facilities). There are some common facilities that people expect to have for a smooth journey. A clean and healthy environment can provide freshness and comfort to the passengers during waiting. The appropriate design and layout of the physical environment can reduce opportunities for criminal actions. (Liggett, Sideris, & Iseki). The Government Authorities don’t have any written documents or the details of any of these terminals or stations. This paper aims to analyze the existing condition of infrastructure facilities of these bus terminals and stations. It would be helpful to the further study of the scholars in the related context.

METHODOLOGY

The study conducted base on primary data collected from field through questionnaire survey. The basic information of the study area are collected from the interview of terminal authorities. A comprehensive field survey and user opinion survey have been made as well using questionnaire and checklist to explore the existing conditions including the infrastructure, existing facilities and services, management system and the extent of user’s satisfaction level. 100 users of four terminals (25 users from each terminal) have been surveyed randomly.

STUDY AREA PROFILE

Kadamtali Inter District Bus Terminal: Since 1966 it is the largest (around 3000 bus are under 1200 owners in nearly 2.5 acres area) intercity bus terminal which operated by private bus owner committee in Chittagong. The terminal is established along the Dhaka Trunk Road.

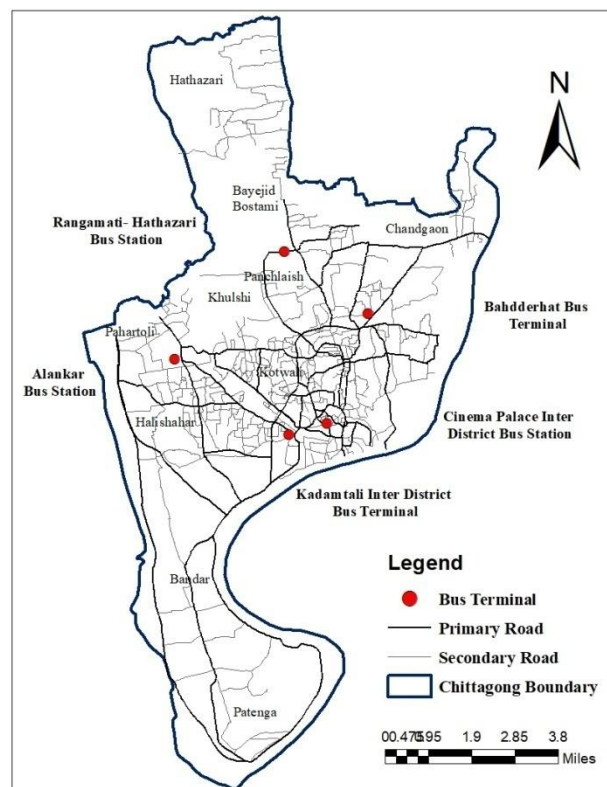
Alankar Bus Station: Mainly it is a branch of Kadamtali Bus Terminal for a long period of time. Although it is a station but it operates like a terminal. More than 500 buses are allocated for the service.

Cinema Palace Inter District Bus Station: This station provides tickets during the day, at night it provides bus services to pick up passengers. About 35 buses pick up passengers from the station each night.

Rangamati-Hathazari Bus Station: Nearly 126 buses are activated in daily service. This station is located in the junction of Bayazid Bostami Road and Chittagong-Rangamati Highway.

Bahdderhat Bus Terminal: Although officially it is belong to the Chittagong Development Authority (CDA), but they have their own bus committee responsible for all activities and decisions. The terminal was constructed and

funded by CDA. According to the Chittagong Metropolitan Master Plan (1995), “A small fee for the use of the Bahdderhat Terminal is collected from each operator and forwarded to CDA- though the day-by-day management of the terminal now lies with the bus operators’ association”. Total 400 buses are available under the terminal bus service. The station is located along the Arkan Road (Chittagong-Cox’s Bazar Highway). City View Revolving Zia Memorial Complex, Shadhinata Complex, Bangladesh Betar, Kalurghat are situated around the terminal.



LEVEL OF EXISTING FACILITIES OF BUS TERMINALS AT CHITTAGONG CITY

Kadamtali Inter District Bus Terminal: There are no infrastructure facilities available except a prayer place. The bus parking place is located at a few minutes walking distance. The boarding and departure area is the footpath along the road. There are several ticket counters along the road in a row with small waiting room. There are no separate toilet facilities for man and woman. Environment of the area is clumsy, congested and unhealthy. Alankar Bus Station: It has many shops and restaurants all over the place with high price rate. The ticket counters have small place as a waiting room with a toilet within the counter. Passengers pick up and drop off activities all happen on the main road as there are no parking place. Environment is risky and congested. Cinema Palace Inter District Bus Station: There are some shops and restaurants along the main road within the ticket counters. The counters have a small room with toilet facilities. As there are no service activities during the day, the counters are vacuous of passengers. Rangamati-Hathazari Bus Station: The most risky, unhealthy place as a bus ticket counter with no infrastructure facilities. No parking space, no boarding or departure area, no toilets, no passenger sheds. Roads are broken and narrow. As a station it has no minimum infrastructure facilities. Bahdderhat Bus Terminal: It has a structural identification as a terminal. Although there are no waiting room, they have passenger sheds for taking shelter. Separate toilet facilities for man and woman, a beautiful mosque, entry and exit gate, parking place are available. But the environment and the road surface condition is too bad. There are some common infrastructure facilities that need to have in any bus terminal. The checklist provides the information of existing facilities.

Table 01: Existing facilities of bus terminals at Chittagong City

| Terminal Facilities | Kadamtali | Alankar | Cinema Palace | Rangamati-Hathazari | Bahdderhat |
|--------------------------------------|-----------|---------|---------------|---------------------|------------|
| Facilities for Passengers | | | | | |
| Waiting room | Yes | Yes | Yes | No | No |
| Shops & Restaurants | Yes | Yes | Yes | No | Yes |
| Drinking water facilities | No | No | No | No | No |
| Separate toilets for men & women | No | No | No | No | Yes |
| Passenger circulation | No | | No | No | No |
| Security including CCTV camera | No | No | No | No | No |
| Boarding/ Departing area | No | No | No | No | Yes |
| Recreation system | No | No | No | No | No |
| Medical facility | No | No | No | No | No |
| Left luggage & lost property office | No | No | No | No | Yes |
| Mosque | Yes | No | No | No | Yes |
| Facilities for Terminal Staff | | | | | |
| Security & information | Yes | Yes | Yes | Yes | Yes |
| Ticketing booth | Yes | Yes | Yes | Yes | Yes |
| Resting room | Yes | No | No | No | No |
| Canteen | No | No | No | No | No |
| Drinking water facilities | No | No | No | No | No |
| Toilets & Washrooms | No | No | No | No | Yes |
| Locker room | No | No | No | No | No |
| Announcing system | Yes | No | No | No | Yes |
| Facilities for Bus Staff | | | | | |
| Drinking water facilities | No | No | No | No | No |
| Canteen | No | No | No | No | No |
| Toilets & Washrooms | No | No | No | No | No |
| Locker room | No | No | No | No | No |
| Facilities for service | | | | | |
| Drainage system | No | No | No | No | No |
| Fire fighting | Yes | No | No | No | Yes |
| Lighting | Yes | Yes | Yes | Yes | Yes |
| Fueling station | No | No | No | No | Yes |

Source: Field Survey, 2018

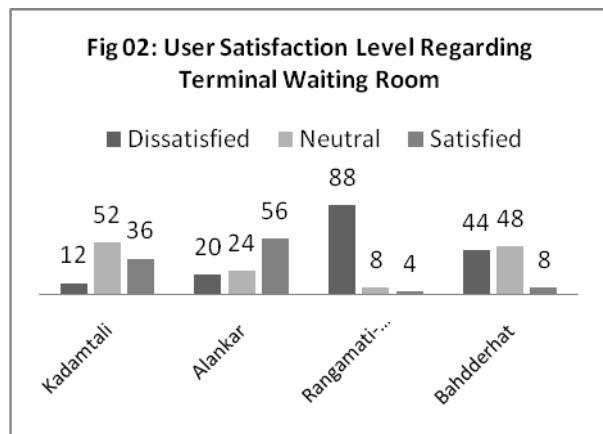
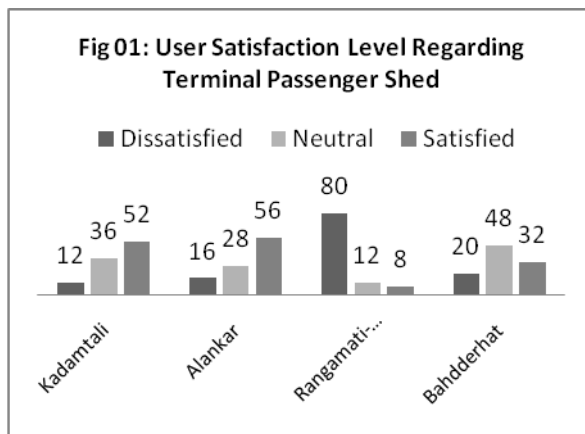
Table 02: Level of user satisfaction at bus terminals of Chittagong City

| Terminals | User Satisfaction level on Percentage | | | | | | | | | | | |
|-----------------------------|---------------------------------------|----|----|---------|----|-----|---------------------|----|----|------------|----|----|
| | Kadamtali | | | Alankar | | | Rangamati-Hathazari | | | Bahdderhat | | |
| | D | N | S | D | N | S | D | N | S | D | N | S |
| Provided washroom | 4 | 44 | 52 | 44 | 24 | 32 | 84 | 16 | 0 | 52 | 32 | 16 |
| Bus parking facility | 12 | 44 | 44 | 56 | 28 | 16 | 76 | 16 | 8 | 48 | 36 | 16 |
| Environment | 84 | 8 | 8 | 44 | 52 | 4 | 92 | 8 | 0 | 76 | 16 | 8 |
| Waiting room | 12 | 52 | 36 | 20 | 24 | 56 | 88 | 8 | 4 | 44 | 48 | 8 |
| Passenger shed | 12 | 36 | 52 | 16 | 28 | 56 | 80 | 12 | 8 | 20 | 48 | 32 |
| Platform | 12 | 40 | 48 | 16 | 68 | 16 | 68 | 28 | 4 | 36 | 48 | 16 |
| Information service | 12 | 28 | 60 | 16 | 56 | 28 | 16 | 24 | 60 | 0 | 16 | 84 |
| Safety & security | 24 | 44 | 32 | 32 | 32 | 36 | 88 | 12 | 0 | 60 | 36 | 4 |
| Locker Service | 32 | 56 | 12 | 64 | 36 | 0 | 96 | 0 | 4 | 76 | 12 | 12 |
| Shops & Restaurants | 20 | 36 | 44 | 0 | 0 | 100 | 8 | 32 | 60 | 12 | 48 | 40 |
| Medicare facility | 28 | 64 | 8 | 84 | 16 | 0 | 100 | 0 | 0 | 76 | 24 | 0 |
| Mosque | 4 | 68 | 28 | 32 | 32 | 36 | 36 | 40 | 24 | 4 | 32 | 64 |
| Passenger loading unloading | 20 | 72 | 8 | 64 | 28 | 8 | 68 | 28 | 4 | 32 | 52 | 16 |
| Ticket counter | 4 | 52 | 44 | 0 | 0 | 100 | 4 | 16 | 80 | 0 | 4 | 96 |

D = Dissatisfied N = Neutral S = Satisfied

Source: Field Survey, 2018

“The Dhaka City Corporation has provided some guiding framework to the private sector terminal management authorities regarding provision and maintenance of user facilities in the terminals.” (Rahman, Mitra, Yasmin, & Esita, 2007). As there are no standard guiding framework for bus terminals from the Chittagong City Corporation, the standards formed by Dhaka City Corporation has followed. According to the Dhaka City Corporation guiding framework, the set of the service facilities standard given to the paper are Passenger shed, Waiting room, Information service availability from the terminal authority, Toilet and wash room, Lockers, Shops and restaurants, Telephone booths, Medical center, Mosque or prayer room. From the table, a comparison of the existing infrastructure facilities among the terminals can be observed.



Passenger shed

Bus terminal management authority should maintain a clean, standard passenger shed with sitting arrangement. From Fig 01, it is clear that Kadamtali Bus Terminal and Alankar Bus Station provides passenger shed respectively 52% and 56% although not in a good satisfactory level. Rangamati-Hathazari Bus Station shows the terrible condition of dissatisfaction with 80% response.

Waiting room

A clean healthy environment to take rest or wait including arrival-departure, origin-destination information a board, wall clock, magazine and newspapers should have in a waiting room for the convenience of the passengers. From Fig 02, 88% dissatisfaction level in the Rangamati-Hathazari Bus Station is the highest. Alankar Bus Station provides good waiting room service at 56% response. Bahdderhat Terminal express a bad condition in waiting room services only 8% are satisfied.

Toilet and wash room

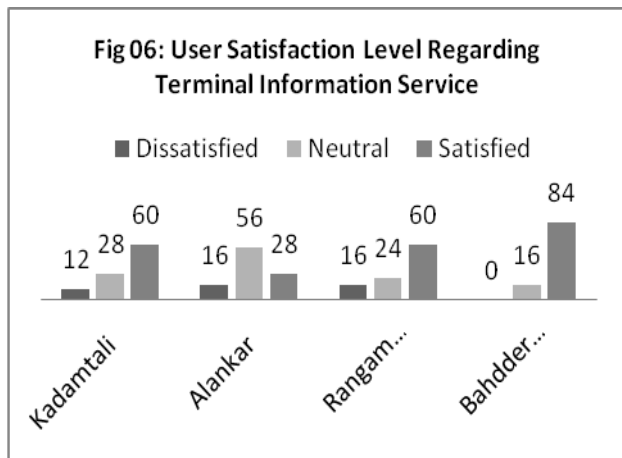
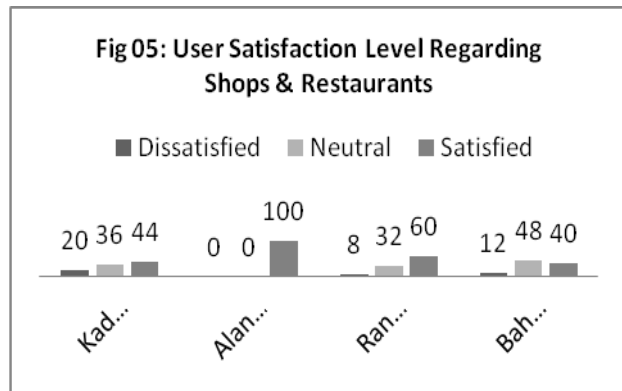
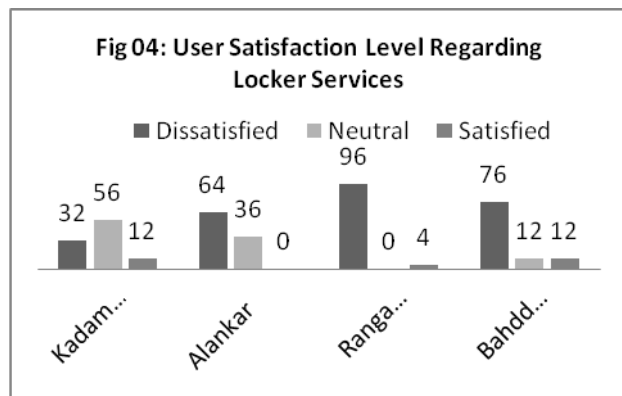
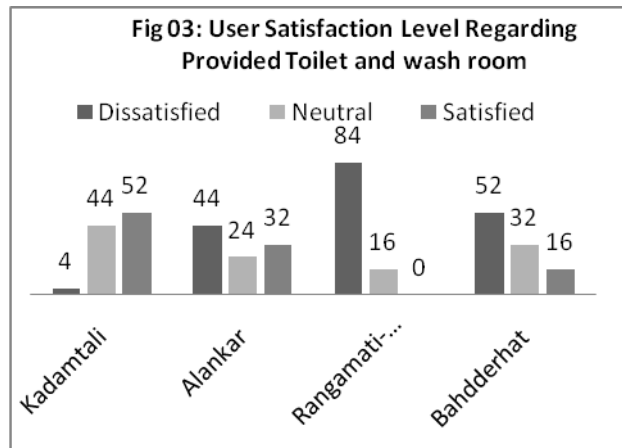
A sanitary toilet facility is very prime consideration to provide odor free, clean toilets and washroom with available water supply. Scheduled toilet cleaning practice must be ensured with delivering soaps, hand wash liquids, cleaning detergents. From Fig 03, the existing condition of Rangamati-Hathazari Bus Station is very terrible in the facility service of toilet and washroom. 16% passengers don't care as they remain neutral and 84% passengers are dissatisfied. Kadamtali Bus Terminal has toilet facilities comparatively good as 52% passengers are satisfied.

Lockers

Lockers for passengers are important requirements in the terminal waiting building. From Fig 05, Significant dissatisfaction are noticeable in Rangamati-Hathazari Bus Station in 96% response. Kadamtali and Bahdderhat Bus Terminal provide same satisfaction level locker service which is 12%.

Shops and restaurants

Under the terminal management authority, restaurants with fare price, available good quality hygienic food, small utility shop, medical shop need to operate as a part of terminal service. In the terminal area there must not local unauthorized shops, hawkers or counterman be found and a strict law should apply for this. From Fig 05, Alankar Bus Station 100% facilities of food and restaurant services although they don't belong to the Bus Management Authority. Bahdderhat and Kadamtali bus terminal has low satisfactory level which is 40% and 44%.



Information service availability from the terminal authority

The complete and updated information about time, route and bus schedule need to show regularly in a displaying billboard in the waiting room for the passengers. From Fig 06, Bahdderhat Bus Terminal has good performance in the availability of information service with 84% response where Alankar Bus Station is below the satisfactory level because of 28% satisfactory response.

Others facilities

Several numbers of public telephone booths available for passengers for their emergency need to consider. There are no telephone booth services in any Bus Terminal or Bus Stations. A medical center with entitled doctor and experienced nurses for first aid and necessary emergency treatment is must in a terminal for passenger's safety. Medical shop with available necessary medicine should be provided. Bahdderhat Bus Terminal Alankar Bus Station, Rangamati-Hathazari Bus station has no medical service where 8% passenger response in positive way. As a Muslim country, provision for prayer room with adequate facilities are considerable including proper management. Bahdderhat Bus Terminal has good response in satisfaction level that is 64%. Near the Alankar Bus Station there are a mosque which is not belong to the bus management authority for which satisfaction level is 36%.

MAJOR FINDINGS

The study and analysis clearly indicate insufficient provision of terminal facilities in relation to the increasing demand of its passengers. The dissatisfactory condition is also attributable to inadequate distribution of facilities, lack of information about arrival and departure, unorganized ticket fares and payment system, outstation of passenger shade by hawkers and illegal ticket counters, harassment of passengers by bus crews, worse condition of waiting rooms, toilets and other passenger facilities. Further the lack of internal coordination between the terminal maintenance authorities and bus operators causes deficiency of proper services to the passengers. Such irregularities and discontinuities not only cause problems but also fail to mitigate the demand- supply gap. If the desired terminal conditions are to be met there, it is an urgent necessity to overhaul and strengthen the institutional arrangements to implement professionalism in the management of terminals, depots and on street bus operations as well as restructure the terminal and the traffic inside and around the terminal. These are demanded both for better inter district bus service and for problem free traffic flow within the city.

CONCLUDING REMARKS

To make these terminals more effective and useful, the management authority should have to fulfill the present demand by using the potentials of this terminal and prepare a future plan so that present supply can cope with future demand and passengers can enjoy easy access to all possible facilities in the terminal. Thus, the existing terminals will be able to shift into improved and well-equipped logistic support, essential to solve the transportation problem of Chittagong city.

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