# Bus Services in Dhaka City - Users' Experiences and Opinions

M. Shafiq-Ur Rahman\* Kasphia Nahrin\*\*

#### **Abstract**

Buses are the only available organized mass public transport system in Dhaka. However, the city is planning to have bus rapid transit (BRT) systems and metro systems to cater the increasing demand for public transport. The buses in Dhaka mostly remain over-crowded, which is often not accessible for the elderly or disabled people as well as for the women. Moreover, the frequency of bus service (headway) is not good. The paper reports the existing service and the users' opinion about the service level of public bus operating within the city. For this purpose, 5 different bus routes had been chosen and a total of 175 passengers of bus (30 from each route) had interviewed with a predetermined structured questionnaire to know their experience/satisfaction and opinion about the existing service as well as their expectations. Surprisingly, it was found that most of the respondents are satisfied with the cost of ticket but very unsatisfied with the waiting time as they have to wait for the bus sometimes about an hour.

Key Words: megacity, congestion, waiting time, over-crowded, service level.

#### Introduction

The transportation system of Dhaka city is predominantly road based. Although there is a limited use of waterways along the river Buriganga, within the metropolitan area yet the rail and water transport is almost absent as a city public transport. The city has no mass transit system like metro rail or bus rapid transit (BRT) systems. However, the government is planning to have BRT systems in three major corridors and metro rail in one corridor. As in other Asian cities, the majority of trips in Dhaka are served on public transport and non motorized transport modes (NMT) or para-transits because a significant numbers of people are poor who can not afford personal vehicle. As the fare of NMT (such as rickshaws) or other para-transits are more expensive than the bus fares (Rahman, 2009); most of the people are heavily dependent on public transport for their travel (Hossain 2006). The STP (2005) stated that the modal share of trips on public transport in Dhaka is about 44%. Bus services are playing the dominant role in providing public transport facilities of the city. If only considered the mechanized transports of the city, the busses run the highest passenger-km per day. Although the bus provides highest passenger-km travel, the modal share of bus in terms of person-trips is comparatively low; hence there is a considerable scope of improvement of modal share of bus by improving bus service in Dhaka city (Hoque and Alam 2001). However, the number of passengers in public transport has been increasing continuously during the last 20 years (Karim and Mannan, 2008).

The bus fleets operating in Dhaka are mainly standard buses and minibuses. According to the strategic transport plan (STP 2005), it is estimated that there are around 7,100 buses in Dhaka. However, only 1,300 of them are plying of which less than 200 are of improved quality. Even though the government owned Bangladesh Road Transport Corporation (BRTC) provides bus services in few routes; the private sector is dominating the sector, which constitutes more than

<sup>\*</sup> Associate Professor, Department of Urban & Regional Planning, Jahangirnagar University, Dhaka 1342 Bangladesh. Email: shafiq\_urp@yahoo.com

<sup>\*\*</sup> Assistant Professor, Department of Urban & Regional Planning, Jahangirnagar University, Dhaka 1342
Bangladesh. Email: kasphia\_urp@yahoo.com

95% of the total public transport, and often act like a syndicate providing monopolistic service (Rahman, 2011). Furthermore, due to lack of proper planning, management and maintenance, the bus services in Dhaka is unsatisfactory situation (Olsson and Thynell 2004).

Dhaka, being a city with very less car ownership rate and poor economy, needs cost-effective public transport systems and services. Thus, bus service should be the spine of transportation for the city. However, various researches (Rahman, 2010; Karim and Mannan 2008, Hoque and Hossain 2008, Haque, 2000) claimed that the present bus services are inefficient, unproductive, and unsafe due to long waiting time, delay on plying, long boarding time, overloading, discomfort, long walking distance from the residence/work place to bus stoppages, and so on. This paper is an endeavor to explore the existing quality/level of the services available from the buses operating in Dhaka City and the bus passengers experience and opinions about the services.

# Literature Review on Bus Service Quality

Service level is an overall measure of all service characteristics that affect the users. The level of service qualitatively measures the effect of factors such as travel time, speed, cost, which in combination with other factors, determine the type of service that any given facility provides to the user under the stated conditions (Wright 1996). There are the three major groups of factors (Currie 2003):

- performance elements affecting users (i.e. operating speed, reliability, safety);
- service quality (i.e. convenience and simplicity of use, aesthetics, cleanliness, behavior); and
- price or the fare rate that the user pay for the service.

Provisions of amenities for shelter, comfort (i.e. seating arrangements), and safety are needed at stops where passengers have to wait (Currie 2003); hence the stops or stations are very important for public transport service. Beside the physical demands, scheduling, running and supervisions of vehicles, fare collection, and maintenance are the key to service of public transport. Vuchie (1981) identified the important elements of performance are: service frequency, operating speed, reliability, safety, line capacity (the maximum number of seats/spaces or persons can carry past point along the line during an hour), productive capacity, productivity, and utilization. There are a range of issues affecting public transport operations; of which reliability, passenger comfort and safety is important. Of course, the factors may vary in different socio-economic condition with having different public transport systems. Trent Buses, bus operator in Midlands of UK, identified customers' top requirements are: reliability/frequency of services, friendliness of services, clean bus interiors, comfort, value for money, clean bus exteriors, easy access, reasonable fares and easy to understand, and easy to remember the timetables (Disney 1998).

On the other hand, Tyrinopoulos and Antoniou (2008) found that transfer quality and quality service are the top priority in bus services for the customers in Athens. According to them, the key satisfaction indicators were the service frequency, transfer distance, ticketing system, and vehicle cleanliness. Paulley et al (2006) explored that the interchange between modes is one of the important attributes of service quality for public transport in UK; for instance walking and waiting times required at an interchange penalize the passenger by the equivalent of 21 minute in-vehicle time (IVT) on a bus trip or 37 minute IVT on a train trip.

Above information about the level of bus service of public transport quality are based on the cities in Global North, which may not fit for Dhaka City where no timetable is followed by the bus operators and both the interior and exterior of bus is often very dirty. In fact, there are not much research papers or published documents available on service quality of bus or public transport of the cities of Global South. This is because, probably, the cities in South are facing more problem even to provide supply of public transports to meet up the demand and hence no efforts/resources

for improved quality. Most of the studies on service level of bus or public transport dealt with operational performance indicators (see Ahmed, 2004; Hasan, 1996; Firdious, 1984; Tanaboriboon and Nath, 1996) rather than exploring the passengers opinion about the quality of ride. From the evidence of some developing cities, Sohail and Maunder (2007) argue for ensuring safe and secure bus stops with provision of shelter for passengers and designated areas for vendors.

"There is, in fact, no comprehensive study on customer satisfaction with bus (or transportation) services in Bangladesh" (Andaleeb et al. 2007: 2). Five performance measures (i.e. travel time, waiting time, accessibility or load factor, regularity of service, and comfort) were used by Sumon (2005) to measure quality of some selected (only improved quality one) bus services operating in two routes of Dhaka City. He explored that the majority (28% for overall and 52.5% if considered only the air-conditioned buses) of the passengers of improved buses travel on it because of better comfort; however, low frequency of service and over-crowding (45% and 26.5% respondents respectively) are the major problems of airconditioned buses operating between Uttara and Motijheel route. The study of Andaleeb *et al* (2007) demonstrates that the factors of comfort, need to change buses, behavior of the staff, and government supervisions are significant but quality of the ride, co-passengers' behavior, and feelings of insecurity are not significant in predicting passenger satisfaction about bus service in Dhaka city. Nevertheless, fare, frequency of service, waiting time, travel time, etc also could be the major attributes for assessing the bus service quality. Based on other studies in European cities as well as studies in Dhaka, Table 1 shows some possible indicators would be suitable for measuring bus service quality in Dhaka.

Table 1: Indicators of the public transport service

Comfort level	Seats are comfortable, ceilings are at a comfortable height, facilities inside bus in good condition, enough leg-room or foot space, and buses are well maintained.
Quality of the ride	Drivers do not frequently brake hard or blow the horn too much and not drive too fast, buses do not overtake other vehicles dangerously, buses do not often breakdown.
Co-passengers' behavior	Passengers are disciplined, passengers are well behaved, passengers maintain cleanliness.
Insecurity	Afraid of being robbed/mugged at the bus stand, afraid of being pick-pocketed on the bus.
Behavior of bus operators (conductor)	Staff behaves properly with the passengers.
Adequacy	Sufficient numbers of buses in the route, seats are generally available on the bus, there are sufficient seats in the buses.
Amenities and facilities at bus stand	Shelter against rain or sun at the bus stands, enough seating arrangement and enough lighting at the bus stands.
Direct services	No need to change buses many times to reach destination.
Government supervision	Government supervision in checking bus fare, buses are randomly checked to ensure mechanical fitness and safety.

Source: Andaleeb et al. 2007; Rahman, 2011.

## **Existing Bus Services and Bus Routes in Dhaka City**

Bus services available in Dhaka city could be categorized in two groups: *counter* bus service and *local* bus service. Counter bus service has specified stoppages for boarding and alighting of passengers and the tickets are sold at the counter of those stoppages. For such buses, passengers have to purchase their tickets from the bus counters just before boarding into bus. A very small number of counter buses are air-conditioned. In contrast, local bus service has no specified stoppage (stop anywhere on the way for boarding and alighting passengers) and passengers pay the fair to the bus conductor on bus (after boarding). Buses of the both types often remain heavily over-crowded; mostly because of a gap between demand and supply. However, there are a few *seating* service buses operating in certain limited routes which allow boarding passengers only if there is an empty seat available for the person. These buses also boarding and alighting passengers at the specified stops (sometimes allow passengers to alight at any place where the passengers want to), and the passengers have to pay for their tickets inside the bus. Only 6 seats in each bus have been reserved for the female passengers but nothing such for disabled people or senior citizens (Rahman, 2010 a).

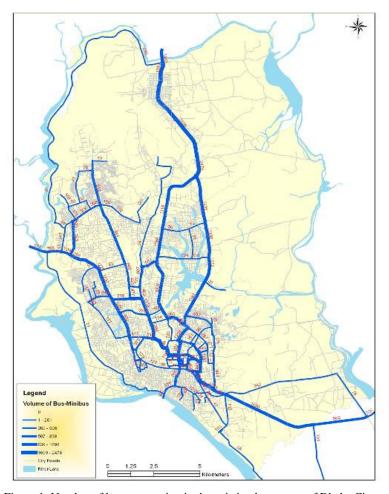


Figure 1: Number of buses operating in the existing bus routes of Dhaka City. Source: DTCB, 2009.

Bus routes for providing transport services in Dhaka City are identified and determined by the Dhaka Metropolitan Regional Transport Committee (DMRTC). The committee encompasses the members from the transport service providing companies and facilitated by the Bangladesh Road Transport Authority (BRTA), the legitimate authority for the regulation and management of transport. The potential bus routes, on which the private transport companies want/decide to operate, they identify the routes and then apply to DMRTC for approval. No scientific methods or planning process are applied for identifying such bus routes for operating and bus stoppages (Rahman, 2011). Then the DMRTC committee simply decides on either to allow or to deny the company for operating on that route. As of April 2009, there were 39 different routes of bus service in Dhaka approved by DMTRC. However, almost each of these routes has a variety of service options (variation in routes for operating). Figure 1 shows the existing bus routes of Dhaka City.

# Methodology

It was quite impossible to cover the whole city or all the bus routes and operators of the city due to time and resource constraints. Hence, only the 5 major bus routes, namely *Uttara-Azimpur* route, *Mirpur-Motijheel* route, *Jatrabari-Mirpur* route, *Gulshan-Motijheel* route, and *Satmasjeed Road* (*Mohammadpur* to *City College*) had been chosen for this study. While selecting the bus routes it was considered that they cover the whole city (i.e. the central area and the periphery, the planned and unplanned area, and the higher-income and lower-income residential areas).

All the major bus service providers operating in the selected route (mentioned earlier) were considered for this study. While selecting the bus providers of a specific route, both the *counter service* (and *seating service*) and *local service* was considered to have the complete picture of existing bus services of the city.

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Bus Routes (selected for this research)	Bus Stops (passenger interviews conducted)	Selected Bus Services (passenger interviews conducted)	Types of the Service
Uttara-Azimpur route	Airport, Mohakhali, Asad Gate, Dhanmondi 32, Kalabagan, Sciencelab, Newmarket	<ul><li>BEVCO Paribahan</li><li>Duldul Paribahan</li><li>Bus Service No. 27</li></ul>	<ul><li> Airconditioned</li><li> Counter</li><li> Local</li></ul>
Mirpur-Motijheel route	Mirpur 10, Mirpur 12, Farmgate, Motijheel	<ul><li> Myline Paribahan</li><li> Shatabdi Paribahan</li><li> Bus No. 9</li></ul>	<ul><li>Counter</li><li>Counter</li><li>Local</li></ul>
Jatrabari-Mirpur route	Jatrabari, Gulisthan, Farmgate, Mirpur 10, Mirpur 12	Bus Service No. 14	Ticket
Gulshan-Motijheel route	Mouchak, Malibagh, Doinik Banglar Moor, Purana Polton (Madhumoti)	<ul><li>Modhumoti Paribahan</li><li>Bus No. 6 (A/B/C/D)</li><li>Local buses</li></ul>	<ul><li>Counter</li><li>Ticket</li><li>Local</li></ul>
Satmoshjid Road (Mohammadpur to City College) route	Mohammadpur, Shankar, Dhanmondi 19, Dhanmondi 15, Zigatola, City College	<ul> <li>Mega City Paribahan</li> <li>Midway Paribahan</li> <li>Shatabdi Paribahan</li> <li>Raja City Paribahan</li> <li>Maitry Paribahan</li> <li>Bus Service No. 13</li> </ul>	<ul><li>Counter</li><li>Counter</li><li>Counter</li><li>Counter</li><li>Counter</li><li>Local</li></ul>

A discussion with the bus operators (i.e. employee at the counters, bus conductors, bus drivers) was done to know their frequency of services as well as other issues related to service. A total of 175 bus passengers (35 from each route) were randomly selected and interviewed with a predetermined structured questionnaire at different bus stoppages. The questionnaire covered the points to explore their experience and satisfaction level of this current bus journey, and their overall expectations about bus services. While selecting the respondents for a particular bus route, it was further considered that the passengers of all the different bus services (operators), which have been chosen for this study as shown in Table 1, of that route represents equally and the sample are drawn from different stoppages of that route. The interviews of bus passengers were conducted in normal sunny week-days in October 2009 for the first phase and then again in September 2011 for the second phase; and the survey time was between 08:00 and 18:00 hours of the day. While conducting the passenger interviews, sometimes the interviewer also traveled on bus along with the respondents (when the interview was in the half-way but the passenger is boarding into bus as it arrived in stoppage) to complete the interview.

# **Bus Users' Opinion: Results from Interviews**

Among the 175 respondents of bus passengers from 5 different bus-routes in Dhaka City, about 88% of them reported that they travel regularly in that specified route whilst the remaining are not regular traveler. This indicates that the study does represent the opinion of people who uses the bus regularly as their mode of travel. The respondents were asked why they use bus as their travel mode. About 76% of them mentioned bus is 'cheaper than any other mode' while the others mentioned 'cheaper and available' or 'cheaper and suitable' or 'cheaper and safe' or 'cheaper and fast' each reported by 6%. All the passengers refer bus service as the cheaper mode and affordable for them. This is not surprising as the bus is the cheapest among the available mode of travel in Dhaka city (Rahman 2009). However, due to over-crowding and congestion the bus passengers' understanding is that the existing bus systems are not capable to meet their travel needs or demands. Moreover, all the passengers believe that carrying extra passengers on a bus does create many problems for them. Following sections describe the bus passengers' experiences and opinions about the quality of bus services in Dhaka.

# Headway (bus frequency) and waiting time for bus at station

Waiting time for a bus at stoppage was reported as less than 20 minutes by 72% of the respondents. However, 12% of the respondents have to wait for more than 40 minutes to an hour and 16% have to wait about 30 minutes for a bus. This indicates, a large waiting time is required for about one third of the passengers. This high waiting time is mostly due to low frequency of bus headway, and sometimes a few passengers is unable to board in the bus because there is no room and hence have to wait for the next one. Considering the bus frequency, only 15% are satisfied about the availability of bus whilst moderate and un-satisfactory are respectively 50% and 35%. However, if considered only the *local* buses then almost 68% of the respondents are un-satisfied with its availability.





Photo 1: A long queue of the passengers waiting for bus (left Science Lab, right Motijheel).

## Availability of a seat and over-crowding

Seat capacity of the existing buses operating varies largely. The counter bus services are often with 52 to 58 seats whilst 36 seats in local bus. However, there are few counter buses also with 36 to 45 seats. Whatever is the seat capacity, almost all the buses are carrying extra passengers standing. Often the bus is so crowded that it becomes impossible for older people or women or children to get a room inside the bus. Consequently, these groups of vulnerable people do not have access to bus service during rush hours (Karim and Mannan 2008). The bus operators claim that the local buses always carry extra passengers and a few of the counter bus operators do not carry any extra or standing passenger. However, there is no justification of such claim as about 84% of the respondents (bus passengers) mentioned that most of the time they do not get a seat while traveling on bus.





Photo 2: Over-crowded bus (left from outside, right inside the bus)

# Bus fare and ticketing

BRTA decide the rate of bus fare and it is on the basis of per km rate. However, almost all the bus services in Dhaka are charging and collecting more than the prescribed rate from the passengers. In 2010, there were several reporting in the newspapers and TV about this and the government tried to re-enforce the prescribed rate. However, even though the bus operators are charging more from the passengers, they often claim that they do abide the government prescribed rates. Nevertheless, about 56% of the respondents are satisfied with the current ticket price whilst the remaining believes that they are paying more than that of government specified fare rate. In line with this, about 40% believe the bus fare is irrationally higher compared with the services and mentioned that the government should reduce the fare rate. Certainly, they are the people of lower-income group.

Whatever, about 72% of the respondents argued that the ticketing system is better than the local bus services.

# Physical condition of the bus

The condition of the buses plying in Dhaka city is not good. This is because the majority of bus fleet is very old and the maintenance is almost absent or very poor. Nevertheless, perception of about 47% passengers' were found to be moderate while 26% and 26% were respectively satisfactory and worse about the physical condition of the bus. Despite the poor bus condition they are not feeling it or mentioning about it because their main concern might be getting a seat or room inside the bus irrespective to it's overall condition. For instance, as one of the passengers told 'interior of the counter buses are moderate, however, the local bus is very poor'. Here, the interior environment included the size of seat, availability of seat covers, free from bad-odor, availability of light and air, and minimal cleanliness. Surprisingly, 38% of the respondents

mentioned 'good' while 24% said 'moderate' about the interior of bus. However, bad and very bad had been reported by 16% and 22% respectively.

# Comfort inside the bus

About 70% of the bus passengers do not feel bus travel is comfortable. According to them, the major factors that attribute to comfort level are unavailability of a seat and overcrowding of passengers while the minor factors are leakage of rain water, interior of the bus, behavior of the bus staff. For example, one third of the passengers argued that the *counter* bus facilities are comfortable because of good seating facilities. About 32% of the respondents mentioned that the seats of bus are uncomfortable. However, if considered only the *local* bus, almost all the passengers reported uncomfortable seats.





Photo 3: Poor seat condition of a bus.

About the air circulation inside the bus, very bad has been mentioned by about half of the respondents, however, it becomes 84% solely for the local buses.

## Comfortable movement inside the bus

Often there is a very limited space available inside the bus for a comfortable movement. About half of the passengers are very unsatisfied whilst only a quarter mentioned moderate about the space for comfortable movement inside the bus. Nevertheless, passengers in local bus cannot move because of jam packet situation. Many minibuses do not provide adequate legroom or even adequate ceiling height for standing. Passenger discomfort increases during rush-hour traffic when riders have to travel standing all the way in an extremely crowded condition. Even, it is common that few passengers are standing in the door and some of them are not even able to stand and hanging outside the door. Only 26% of the passengers are satisfied about the possibility of movement inside the bus; and certainly none of them are of local bus passengers.





Photo 4: Passengers are standing (hanging) in the door of an overcrowded bus where other people waiting for the bus (tried to board but didn't get any room); (a) Farmgate (b) Kolabagan.

# Delay time while the bus running on the way

About 80% of the respondents reported that beside the waiting time in bus stoppage they are suffering for the delay time in each and every stoppage on the way. The drivers often wait in stoppages for a certain time with expectation that they will get some more passengers. This is a common practice for the local bus service. Even, they often board and off-load passengers at unspecified stops. These unexpected halt cause unnecessary delay for the on-board passengers. Beside this, higher alighting and boarding time might be another cause of delay. About 60% of the passengers reported that they suffer for about 5 minutes of such delay time.





Photo 5: Boarding and alighting of the passengers from a *local* bus; no specified stoppage or passenger waiting facilities.

# Physical harassments of the female passengers

About 62 percent of the bus passengers reported that they had faced various problems or harassments whilst their bus travels. Among the major problems, problems associated with boarding or alighting are 56%, associated at the ticket counter are 22%, associate to the trip destination are 4%, and associated with staffs' behavior are 18%. Sexual harassment to women in a crowded bus is a common problem in Dhaka (Rahman 2010).





Photo 6: Bus conductor at the door is harassing a female while boarding (left); alighting a lady in the middle of road (right), .

#### Behavior of the bus staff

About the behavior of the staff (the conductor or supervisor of the bus), about 30% of the respondents mentioned satisfactory whilst 40% mentioned moderate and the remaining 30% mentioned poor. However, if considered only the local buses, about 83% are not satisfied. This indicates the behavior of a staff in the counter bus is much better than the local bus. This might be because often there is dispute between the conductor and passengers to set a fare for a particular trip on the local bus.

# Location of the bus station and accessibility on it

Among the respondents almost 46% mentioned that their closest bus stoppage is within 0.5 km whilst 36% mentioned 0.5 to 1 km and 24% mentioned more than 1 km to catch the bus. The respondents reported that continuous stopping increase the travel time and decrease the service level. Hence, majority of the passengers of local bus argued that the distance between two stoppages should be more. Surprisingly, few passengers of the counter bus mentioned that the distance between two stoppages should be reduced.

## Facilities at the bus station area

Many bus stands do not offer protection from the sun, rain, dust, and other elements that have significant implications for health or safety. Passenger shades are almost absent in Dhaka city. There are a few, however, occupied with vendors or shops and no use for the bus passengers. In some stoppages of the counter bus there are big umbrellas for the ticket master and passengers. However, this umbrella is not able to give any protection to the passenger from heat of sun or rain. There are no seating facilities for the passengers. Often the passengers sit on sidewalks blocking the paths of pedestrians or stand in a queue while waiting for the bus. Sometimes the bus stands are situated near dumps, creating an unhealthy and suffocating situation for passengers.







Photo 7: Road side ticket counters for buses (left close to garbage dumping site, right on carriage way).

## Availability of information about bus services

About 55% of the respondents mentioned that they can get the necessary information what they required; however, the rest do not get information from the ticket counter or conductor. Those who mentioned that they do not get necessary information about the bus service, most of them are passengers of the local bus service.

## Sudden breakdown of bus

Due to poor maintenance of the bus fleets, often these become out of order on the way and causing problems for its passengers. About 40% of the respondents reported that they had experience of unexpected breakdown of the bus while travelling, mostly due to fitness problem of bus or staff related problem. The author had such experience of sudden breakdown of bus in Dhaka for two times within six months in 2011. On that occurrence, the passengers had to wait until another bus, which was passing the spot, to pick up them or some passengers either walked to their destination or took alternative modes.

# Bus passengers' requirements and expectations

Considering the overall satisfaction about the bus service, almost 68% of the respondents are not satisfied and the remaining 32% are satisfied about the existing bus service.

The respondents have been asked what they want to have a better bus service. Despite having various issues of poor state of bus service, they only mentioned to have a more frequent bus service so that they can get a seat. Their perceptions about better service are centered on improved bus quality and the seat condition. So, the respondents had been given four facilities and to rank

them. The majority gave their first priority to have more bus available so that the journey takes less travel time and waiting time (Table 4). Second priority was to have a confirmed seat which is also somewhat related with the first one. Interior environment of the bus and the behavior of staff are not crucial for the bus passengers in Dhaka City.

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Priority	Facility	% of passengers
First	Availability of bus and less time (traveling and waiting)	44
Second	Confirmed seat	22
Third	Interior environment	20
Fourth	Staffs behavior	14

#### Discussions

Public transport, by the definition of text books, is usually a common carrier which provide scheduled service on fixed routes and available for public (usually paying a set fare). However, public transports operating in Dhaka City at present are not following or maintaining any time schedule.

Buses are the major mode of transport, the choice for the majority of community and are the only means of mobility that can be afforded by the urban poor. Due to heavy traffic congestion and absence of any time schedule, waiting time for bus service in Dhaka City is unpredictable for the passengers. A few modern buses are equipped with multimedia entertainment/advertising and passenger comforts such as air conditioning. However, these facilities are in a very limited number of buses in Dhaka.

Although BRTC has started with the banner of "Service is our motto: Comfort is our commitment", it can not fulfill any of their objectives (BRTC, 2011). With few exceptions, the bus owners or operators, including government owned BRTC buses, in Dhaka City do not pay adequate attention to passengers' comfort (Andaleeb et al. 2007). Internal facilities, such as lights and fans, are frequently out of order or in need of repair. Many of these buses do not have fans and lights at all. Other amenities, such as lighting during night, airflow and ventilation, must be constantly monitored to ensure a desirable passenger experience. Basic passenger requirements, like comfortable seats and windows for airflow, also do not measure up to the standards. The results derived from the interview of bus passengers suggest that if comfort level could be improved it could also increase significantly the passengers' satisfaction, as Andaleeb et al (2007) also claimed, leading perhaps to greater proclivity to use public buses.

Certainly Dhaka City needs better public transportation system and services. Few minor steps such as advanced ticketing system, discipline among the passengers while waiting at bus stoppage or boarding and alighting buses, making all buses as sitting service and reserve few seats for the disabled, etc could bring better results for bus service. About the bus fare, all the bus operators claimed that they follow the fare structure specified by the government. However, their claim is not true. Even the majority of passengers also aware that they are paying more than the specified fair rate it should be.

In the long run, some other tasks might be needed to improve the quality of bus services for Dhaka City. For instance, provision of bus-only lane, increasing the number of bus fleet, maintaining a specified time schedule and publicize the information widely to make it available for the

passengers, adjusting the fare rate rationale to the service level, ensuring better air circulation inside the vehicle, reducing the delay time in station, etc. As the behavior of bus staffs is an important issue for service level, often they holt the bus in the centre of road for boarding or alighting passengers, the government could train all the staff of bus service how they could behave more friendly with the passengers.

#### **Conclusions**

Buses are the only organized mass public transport system available now in Dhaka City. The paper explored the overall situation of bus service; particularly the major problems the passengers are facing, based on their experience and gave some suggestions for improving the services quality. The outcome might be helpful for the service providers to know what the passengers mostly expect and thus improve the delivery of bus services. It was observed that the existing bus service quality is very poor. There is no specified time schedule for the buses operating; hence passengers waiting time at station is longer. Except a few bus of seating service all the buses carry extra passengers than the seat capacity and always remain over-crowded.

The public transport systems of the city failed to serve the needs of mass people and also failed to maintain an adequate level of service at prices affordable for the poor. It was found that most of the respondents are very unsatisfied with the waiting time as they have to wait for a longer time for the bus. The number of high capacity buses and their service level need to be increased to cope with the current demand. Hence, transport facilities of the city should be provided keeping in mind the population growth, economic development, and future travel demand of the city.

**Note:** The earlier version of this paper was presented in the 24<sup>th</sup> World Road Congress (PIARC), Mexico, 26-30 September 2011.

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