# A STUDY ON DHAKA-CUMILLA AND DHAKA-NARAYANGANJ RAILWAY

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A thesis submitted to the Department of Civil Engineering in partial fulfillment for the degree of Bachelor of Science in Civil Engineering



Department of Civil Engineering Sonargaon University 147/I, Green Road, Dhaka-1215, Bangladesh Section: 15D Semester - Spring-2022

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It is hereby declared that this thesis/ project or any part of it has not been submitted elsewhere for the award of any degree or diploma.

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Dedicated

To

"We dedicate this thesis to our beloved parent's"

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#### ABSTRACT

This study was conducted in the Department of Civil Engineering at Sonargaon University Bangladesh with the objective of this study to find out the problems of Dhaka-Cumilla and Dhaka-Narayanganj routes and possible solutions have been discussed. According to a survey conducted on government employees at Dhaka-Cumilla and Dhaka-Narayanganj railway stations, due to rail crossings and political issues, the train does not arrive on time and it is late to leave the train station, many passengers travel without tickets and are harassed by passengers. On the other hand, a survey of passengers on the same route showed that, the trains do not reach and leave the station on time, have to wait in long lines to collect tickets, uncleanliness and lack of adequate water in the train, poor condition of seats and fans. Due to insufficient number of trains on the specified route, the train would travel standing. Also, inadequate waiting room arrangements for passengers at the station, unsafe passenger tents, unhygienic environment which are considered as reasons for reluctance of passengers to travel by train. Passengers, on the other hand, get on and off the train without a platform, crossing the platform without an overpass which is very risky. And, insufficient stones at the bottom of the train line, the problem of bonding of the line, there is a possibility of a major accident. It is possible to build Bangladesh Railway as a good means of communication and a good source of revenue by solving all the problems with the kind vision of the railway authorities and the self-cooperation of the passengers.

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# CHAPTER 1 INTRODUCTION

#### 1.1 General

Transportation site is like a glistering site in our country. But there have many problems. It has two site selections for remove these problems. One is Dhaka to Cumilla & another one is Dhaka to Narayanganj. If there had select many route it would have very well for our work. That's not going to take long. It has discussed in first chapter about objectives of railway transportation, limitation of these site & organization of thesis. This is how, it has discussed at second chapter about history of railway transport. In chapter three, there have discussed about Dhaka to Cumilla & Dhaka to Narayanganj. And it has upheld through pie chart and photography in chapter four. Finally it has hint to improve this site in chapter five.

#### 1.2 Objectives

- $\Box$  To find out the reasons behind the problems.
- □ To suggest some remedial measures for improving service quality.

### 1.3 Limitation

Present limitation in railway system:

- $\Box$  Office stuffs do not co-operates with us.
- □ Employees are not willing to provide information's.
- □ Some places of railway system have restricted entry.
- Railway police do not provide information rather suggest going and meeting someone else.
- □ Passengers are confused in delivering their experience.
- $\Box$  Study period was short.

#### **1.4** Thesis and project organization

Chapter One: This chapter includes objectives and limitation of the study.

Chapter two: This chapter includes the literature review of the study.

Chapter three: This chapter includes the methodology of the study.

Chapter four: This chapter based on the data result and discussion of the study.

Chapter five: This chapter includes conclusion and recommendation of the study.

## CHAPTER 2 LITERATURE REVIEW

#### 2.1 General

This chapter is discussed about History of World Rail Transport, History of Bangladesh rail Transport and comparison between Bangladesh Rail transport and World Rail Transport.

#### 2.2 History of World Railway

Including systems with man or horse power, and tracks or guides made of stone or wood, the history of rail transport dates to as early as Greek Times. Wagons ways relatively common in Europe from about 1500 through 1800. Mechanized rail transport system first appeared in England in the 1820s.



Figure 2-2.1 Wagons and tramways

#### 2.2.1 History of rail transport in Great Britain

As the colliery and quarry tramways and wagon ways grew longer, the possibility of using the technology for the public conveyance of goods suggested itself. On 26 July 1803, Jessop opened the Surrey Iron Railway in south London – arguably, the world's first public railway, albeit a horse-drawn one. It was not a railway in the modern sense

of the word, as it functioned like a turnpike road. There were no official services, as anyone could bring a vehicle on the railway by paying a toll. (Jessop 26 July (1803))

In 1812, Oliver Evans, , an American engineer and inventor, published his vision of what steam railways could become, with cities and towns linked by a network of long distance railways plied by speedy locomotives, greatly reducing the time required for personal travel and for transport of goods. Evans specified that there should be separate sets of parallel tracks for trains going in different direction s. However, conditions in the infant United States did not enable his vision to take hold. (Oliver Evans (1812))

This vision had its counterpart in Britain, where it proved to be far more influential. William James, a rich and influential surveyor and land agent, was inspired by the development of the steam locomotive to suggest a national network of railways. It Seem likely in 1808 James attend the demonstration running of Richard Trevithik's Stream locomotive catch me who can in London; certainly at this time he began to consider the long-term development of this means of transport. He was responsible for proposing a number of projects that later came to fruition, and he is credited with carrying out a survey of the Liverpool and Manchester Railway. Unfortunately, he became bankrupt and his schemes were taken over by George Stephenson and others. However, he is credited by many historians with the title of "Father of the Railway".

It was not until 1825 that the success of the Stockton and Darlington railway proved that the railways could be made as useful to the general shipping public as to the colliery owner. This railway broke new ground by using rails made of rolled wrought iron, produced at Bedlington Ironworks in Northambarland. Such rails were stronger. This railway linked the town of Darlington with the port of Stockton-on-Tess, and was intended to enable local collieries (which were connected to the line by short branches) to Transport their coal to the docks. As this would constitute the bulk of the traffic, the company took the important step of offering to haul the colliery wagons by locomotive power, something that required a scheduled or timetabled service of trains. However, the line also functioned as a toll railway, where private horse-drawn wagons could be operated upon it. This curious hybrid of a system (which also included, at one stage, a horse-drawn passenger wagon) could not last, and within a few years, traffic was restricted to timetabled trains. (However, the tradition of private owned wagons continued on railways in Britain until the 1960



Figure 2-2.2 Wagons and tramways

#### 2.2.2 History of rail transport in Canada

In Canada, the national government strongly supported railway construction for political goals. The Grand Trunk Railway of Canada linked Toronto and to Michigan and Chicago. By 1870 it was the longest railway in the world. The Inter colonial line, finished in 1876, linked the Maritime to Quebec and Ontario, tying them to the new Confederation. Den Otter (1997) challenges popular assumptions that Canada built transcontinental railways because it feared the annexation schemes of aggressive Americans. Instead Canada overbuilt railroads because it hoped to compete with, even overtake Americans in the race for continental riches. It downplayed the more realistic

Maritime-based London-oriented connections and turned to utopia prospects. (Den Otter (1977))

For the farmlands and minerals of the west. The result was closer ties between north and south, symbolized by the Grand Trunk's expansion into the American Midwest. These economic links promoted trade, commerce, and the flow of ideas between the two countries, integrating Canada into a North American economy and culture by 1880. About 700,000 Canadians migrated to the U.S. in the late 19th century. The Canadian Pacific, paralleling the American border, opened a vital link to British Canada, and stimulated settlement of the Prairies. The CP was affiliated with James J.Hill's American railways, and opened even more connections to the South. The connections were two-way, as thousands of American moved to the Prairies after their own frontier had closed.

Two additional transcontinental lines were built to the west coast three in all but that was far more than the traffic would bear, making the system simply too expensive. One after another, the federal government was forced to take over the lines and cover their deficits. In 1923 the government merged the Grand Trunk, Grand Trunk Pacific, Canadian Northern and National Transcontinental lines into the new the Canadian National Railways system. Since most of the equipment was imported from Britain or the U.S., and most of the products carried were from farms, mines or forests, there was little stimulation to domestic manufacturing. On the other hand, the railways were essential to the growth of the wheat regions in the Prairies, and to the expansion of coal mining, lumbering, and paper making. Improvements to the St. Lawrence waterway system continued apace, and many short lines were built to river ports.

#### 2.2.3 History of Rail Transport in India

The 1909 Map of Indian Railway, when India had the largest railway network in the world.

The British built a superb system in India. However, Christensen (1996) looks at of colonial purpose, local needs, capital, service, and private-versus-public interests. He concludes that making the railways a creature of the state hindered success because railway expenses had to go through the same time-consuming and political budgeting

7process as did all other state expenses. Railway costs could therefore not be tailored to the timely needs of the railways or their passengers.



Figure 2-2.3 Indian Railway Map.

By the 1940s, India had the fourth longest railway network in the world. Yet the country's industrialization was delayed until after independence in 1947 by British colonial policy. Until the 1930s, both the Indian government and the private railway companies hired only European supervisors, civil engineers, and even operating personnel, such as engine (locomotive) drivers. The government's "Stores Policy" required that bids on railway materiel be presented to the Indian Office in London,

making it almost impossible for enterprises based in India to compete for orders. Likewise, the railway companies purchased most of their material in Britain, rather than in India. Although the railway maintenance workshops in India could have manufactured and repaired locomotives, the railways imported a majority of them from Britain, and the others from Germany, Belgium, and the United States. The Tata Company built a steel mill in India before World War I but could not obtain orders for rails until the 1920s and 1930s.

#### 2.2.4 History of rail transport in Iran

Iran railway history goes back to 1887 that a railway between Tehran and Ray was established with about 20 km length. After this time many short railways were constructed but the main railway was started in 1925 and operated in 1938 by connecting the Persian Gulf to the Caspian Sea.

#### 2.2.5 History of rail Transport in Pakistan

Pakistan has a rich railway heritage spanning almost 200 years which it owes the British. It was in 1847 when the first railway was imagined but it was not until 1861 when it came into existence in the form of the railway built from Karachi to Kotri. Pakistan has stayed true to this rich heritage because since then rail transport is possibly the most popular mode of non-independent transport in Pakistan.

#### 2.2.6 History of Rail Transport in Russia

In the early 1830s Russian inventors father and son Cherepanovs built the first Russian steam locomotive. The first railway line was built in Russia in 1837 between Saint-Petersburg and Tsarskoye Selo. It was 27 km long and linked the Imperial Palaces at Tsarskoye Selo and Pavlovsk. Track gauge was 6 feet (1830 mm). Russia was in need of big transportation systems and geographically suited to railroads, with long flat stretches of land and comparatively simple land acquisition. It was hampered, however, by its outmoded political situation and a shortage of capital. Foreign initiative and capital were required. It was the Americans who brought the technology of railway construction to Russia. In 1842 planning began for the building of Russia's first important railway; it linked Moscow and St Petersburg. (Cherepanovs (In the early 1830s))

#### 2.2.7 History of rail Transport in Latin America

In Latin America in the late 19th and early 20th centuries railways were critical elements in the early stage of modernization especially in linking agricultural regions to export-oriented seaports. After 1870 the government encouraged further rail development through generous concessions that included government subsidies for construction. By 1910, Mexico boasted 15,360 miles (24,719.5 km) of in-service track, mostly built by American, British and French investors. Growing nationalistic fervor led the government to bring the bulk of the nation's railroads under national control in 1909, with a new government corporation.

#### 2.3 History of rail Transport in Bangladesh

Bangladesh Railway is the state-owned rail transport agency of Bangladesh. It operates and maintains the entire railway network of the country. BR is controlled by the Directorate General of Bangladesh Railway under the Ministry of Railways along with Bangladesh Railway Authority (BRA) and which works for policy guidance of BR.

Railway operation in today's Bangladesh began on 15 November 1862 when 53.11 kilometers of 5 ft 6 in (1,676 mm) (broad guage) line were opened for traffic between Dorshona of Chuadanga district and Jogotee of Kustia District. The next 14.98 kilometers 1,000 mm (3 ft 3 3/8 in) (meter gauge) line was opened for traffic on 4 January 1885. In 1891, the construction of then Bengal Assam Railway was taken up by the British Government assistance but that was later on taken over by the Bengal Assam Railway Company. On 1 July 1895, two sections of meter gauge lines were opened between Chittagong and Comilla a length of 149.89 kilometers. Railway Companies formed in England took up the construction and operation of these sections in middle and late 19th century. At time of the Partition of India in 1947, Bengal-Assam Railway was split up and the portion of the system, about 2,603.92 kilometers fell within the boundary of then East Pakistan and control remained with the central Government of Pakistan. Later with the effect from 1 February 1961, Eastern Bengal

Railway was renamed as Pakistan Eastern Railway. Then in 1962, the control of Pakistan Eastern Railway was transferred from the Central Government to the Government of East Pakistan and placed under the management of a Railway Board with the effect from the financial year 1962–63 by the presidential Order of 9 June 1962. (Bangladesh Railway (15 November 1862))

As of 2005, the total length of railroad is 2,855 kilometers off trucks. The gauge problem is being tackled by adding third rails to the most important broad and meter gauge routes, so that they become dual gauge. A major road-rail bridge at that, 660 km are broad gauge tracks, 1,830 km are meter gauge tracks, and 365 km are dual gauge Jamuna opened in 1998 to connect the previously detached east and west rail networks. On March 2008, the broad gauge reached Dhaka, the national capital. Funding is being sought to upgrade the network and transform Bangladesh Railway into a profitable business. BR exceeded its target revenue earnings in the fiscal year 2007–2008. (Bangladesh Railway (1998))

# CHAPTER 3 METHODOLOGY

#### 3.1 General

In the methodology process, it was introduced in the case of site selection. Therefore, the method has been described in detail. We showed our observations through a flow chart.

#### 3.2 Site Selection

Thesis topic is by chosen the route selection, one route is Dhaka to Comilla and another route is Dhaka to Narayanganj. After choosing, we are interested to visit Dhaka to Comilla route. The map of Dhaka to Comilla and another route map is Dhaka to Narayanganj.



Figure 3- 3.1 Map Dhaka to Cumilla & Narayanganj

Reason behind the route selection -

Because Dhaka to Cumilla route is one of the most important route in Bangladesh.

Therefore, this route is connecting with Chittagong port. At a first time in Bangladesh, demo rail is started in Narayanganj route .For this we selected this route.

### 3.3 Procedure

#### **Topic selection**

There were many types of topic in transportation engineering. But we have chosen Bangladesh railway. Because it can make an outstanding contribution to our country. But day by day this sector is sinking. So we chose this topic.

### **Preliminary survey**

Preliminary survey starts through Dhaka to Cumilla route so we have prepared some question and apply the field.

#### □ Site selection

Before, it was too hard select the topics. It has becomes easier when our respected advisor suggested. finally, two route have selected.

#### **Field survey**

There were two types of field survey.

1) Photographic survey: field survey will be published by photographic.

2) Questionnaire survey public comment will be disclosed by questionnaire survey.

#### 3.4 Flowchart



#### **Fig: Flowchart**

#### 3.5 Conclusion

Typically, crisis is the best driven for reforming the railway. Government agreed to embark on a restructuring process only after a few years of financial crisis forced it to confront the fiscal implication of railway operations and management.

### **CHAPTER 4**

## DATA COLLECTION AND ANALYSISS

#### 4.1 General

In this chapter, data collection will mention two topics, one is questionnaire survey and the other is field survey. The questionnaire survey supported the statistics by the pie chart. The number of questionnaire survey on the government employees and passengers was 38. Supported by field survey photos. This is discussed under following..

#### 4.2 Questionnaire Survey for Dhaka to Cumilla (Railway Staff)

Questionnaire survey template for Railway Staff on both routes.

Serial	Type of Question	Answer by Passenger	
Number		Yes	No
1	Do you realize that the train has reached at station in fixed time?		
2	Do you realize that the train has left at station in fixed time?		
3	Do you feel that the passenger is following ticketing system?		
4	Do you think the number of passengers on the train has increased or decreased?		
5	Do you face any problem by passenger?		
6	Do you realize that it is great, when the quality of train service is increased?		
7	Do you realize that if meter gauge or broad gauge line or two lines had set in Dhaka city it would have well?		
8	Do you realize that if the situation of train station had developed it would have great?		
9	Are the trains in service condition is good ?		



4.2.1 Do you realize that the train has reached at station in fixed time?

Figure 4- 4.1 Questionnaire survey of train schedule



Figure 4- 4.2 Reason behind the train schedule

## 4.2.2 Do you realize that the train has left at station in fixed time?



Figure 4-4.3 Questionnaire survey about train has left

#### 4.2.3 Do you feel that the passenger is following ticketing system?



Figure 4- 4.4 Questionnaire survey of following ticketing system

4.2.4 Do you think the number of passengers on the train has increased or decreased?



Figure 4- 4.5 Questionnaire Survey about passenger

4.2.5 Do you face any problem by passenger?



Figure 4- 4.6 Questionnaire survey of creating problems by passenger.

#### The Reason of Problem



Figure 4- 4.7 Reason of problems

**4.2.6** Do you realize that it is great, when the quality of train service is increased?



Figure 4- 4.8 Questionnaire Survey of train service

4.2.7 Do you realize that if meter gauge or broad gauge line or two lines had set in Dhaka city it would have well?



Figure 4- 4.9 Questionnaire Survey about train line

4.2.8 Do you realize that if the situation of train station had developed it would have great?



Figure 4-4.10 Questionnaire Survey about train station

## 4.2.9 Are the trains in service condition is good?



Figure 4- 4.11 Questionnaire survey about service condition of train

## 4.3 Questionnaire Survey for Dhaka to Cumilla (Passenger)

Serial	Types of Question		Answer by Passenger	
Number			Yes	No
1	Do you rea fixed time	alize that the train has reached at station in ?		
2	Do you ha	ve paid right hire?		
3	Do you have checked by TT?			
4	Do you ha	ve come to your reserved seat?		
5	Do you rea would wel	alize that if the number of train increased it 1?		
6	Do you fa	Il in any types of problem with your journey?		
	Which service	Neat & Clean		
7	will be increases	Timing Maintain		
	that com fort	Limited Passenger		
8	Are you satisfied with journey?			
9	Do you feel that equal tickets for equal seat sold it would good?			
10	Do you sa increases	tisfy if travel of train service increases and also hire?		

Questionnaire survey template for Railway Staff on both routes.

## 4.3.1 Do you realize that the train has reached at station in fixed time?





#### 4.3.2 Do you have paid right hire?



Figure 4-4.13 Questionnaire Survey about hire

4.3.3 Do you have checked by TT?



Figure 4- 4.14 Questionnaire Survey about TT

4.3.4 Do you have come to your reserved seat?



Figure 4- 4.15 Questionnaire survey about reserve seat



4.3.5 Do you realize that if the number of train increased it would well?

Figure 4- 4.16 Questionnaire Survey about train



4.3.6 Do you fall in any types of problem with your journey?

Figure 4- 4.17 Questionnaire survey about problem



Figure 4- 4.18 Different types of problem



#### 4.3.7 Which service will be increases that comfort with your journey?

**Figure 4- 4.19 Questionnaire about travel** 

4.3.8 (a): Are you satisfied with journey?



Figure 4- 4.20 Questionnaire survey about journey

### **4.3.9** (b): Do you feel that equal tickets for equal seat sold it would good?



Figure 4- 4.21 Questionnaire survey about ticket & seat



4.3.10 Do you satisfy if travel of train service increases and also increases hire?

Figure 4- 4.22 Questionnaire Survey about hire & service

#### 4.4 Photographic survey: Dhaka to Cumilla

Survey is completed by two methods; one is 'Questioner Survey' another is 'Photographic Survey'. Photographic survey of Dhaka to Cumilla zone is given below:

#### 4.4.1 Waiting seat limitations

In this picture we see that there is no enough waiting seat. For limitation of waiting room the railway environment will be hazardous.



Figure 4- 4.23 Cumilla Railway Station

Authority should make up rest house or some chair to set or rest the passengers.

### 4.4.2 Inadequate protection for passengers

In this picture we can see that there is no enough tin shed to save passenger from rain or any kinds of stormy weather. Railway authority should repair these kinds of problems.



Figure 4- 4.24 Inadequate Protection for Passengers

## 4.4.3 Lack of drainage system

In this picture we can see that there is no well drainage system



Figure 4- 4.25 Lack of Drainage System

Railway authority should care about drainage system so that water can pass easily and passengers can stay without any hesitations. Then the Station will be free from mosquito and other unhealthy site.



Figure 4- 4.26 Lack of Drainage System

#### 4.4.4 Insufficient stone

In this picture we can see that there is no enough stone under line. Railway authority should take care in whole railway Line. We see that in the picture there is no enough stone under line. Authority should fill up stone where there is no enough stone under railway line because stone saves rail line from any kinds of cracks.



Figure 4- 4.27 No Sufficient Stone under Line



Figure 4- 4.28 Enough Stone under Line

#### 4.4.5 Disuses Rail line

In this picture we can see that there is no proper system to save and repair.



Figure 4- 4.29 Disuses Line



Figure 4- 4.30 Disuses Line & Bogy

Railway authority should repair these types of rail line or save this property properly. So hugs amount of money will be saved.

#### 4.4.6 Safety Problem

In this picture we can see that lacking of monitoring system (Risky pedestrian crossing)



#### Figure 4-4.31 Lack of Consciousness

Big accident can be happened because lacking of monitoring system. And passengers also should have their good will to avoid these kinds of accidents. So monitoring system should be increased.

#### 4.4.7 Unsystematic way of riding and getting down

In this picture we can see that there is no regular system to get ride and get down from the train. If this system will be continued time loss will be increased



Figure 4- 4.32 Unsystematic way of riding and getting down



Figure 4- 4.33 Unsystematic way of riding and getting down

To avoid this problem monitoring system will be perfect and own good willing must increase, time loss will decrease

## 4.4.8 Unused slippers

In this picture we can sea to retention the railway slipper



## Figure 4-4.34 Unused slippers

We see that retention of railway slipper. There are big amount of ruined railway slipper. Railway authority should retain this property. If they can retain this property, a big amount of money will be saved.

4.4.9 During our Questionnaire Survey from a railway authority



Figure 4- 4.35 Cumilla Railway Station

- 4.5 Questionnaire Survey for Dhaka to Narayanganj (Passenger)
- 4.5.1 Do you realize that the train has reached at station in fixed time??





## 4.5.2 Do you have paid right hire?



Figure 4- 4.37 Questionnaire survey about right hire.

4.5.3 Do you have checked by TT?



Figure 4- 4.38 Questionnaire survey about TT.

4.5.4 Do you have come to your reserved seat?



Figure 4- 4.39 Questionnaire survey about reserve seat.



4.5.5 Do you feel that if the number of train increased it would well?

Figure 4- 4.40 Questionnaire survey about train.

#### 4.5.6 Do you fall in any types of problem during your journey?



Figure 4- 4.41 (a) Questionnaire survey about journey.



Figure 4- 4.42 (b) different type of problem.



### 4.5.7 Which service will be increase that comfort during your travel?

Figure 4- 4.43 Questionnaire survey about travel.

## 4.5.8 Do you realize that if equal tickets for equal seat set it would well?



Figure 4- 4.44 Questionnaire survey about ticket & seat.

## 4.5.9 If travel of train service increases & also increases hire, do you satisfy?



Figure 4- 4.45 Questionnaire survey about hire.

#### 4.5.10 What is the position of train station?



Figure 4- 4.46 Questionnaire survey about train station.

- 4.6 Questionnaire Survey for Dhaka to Narayanganj (Railway Staff)
- 4.6.1 Do you realize that the train has reached at station in fixed time?



Figure 4- 4.47 (a) Questionnaire survey about train schedule.



Figure 4- 4.48 (b) Questionnaire survey about reason behind problem.

#### 4.6.2 Do you realize that train has left at station in fixed time?



Figure 4- 4.49 Questionnaire survey about train.

#### 4.6.3 Do you feel that the passenger is following ticketing system?



Figure 4- 4.50 Questionnaire survey about ticketing system

4.6.4 Do you feel that the number of passenger has increased or decreased in train?



Figure 4- 4.51 Questionnaire survey about passenger.

#### 4.6.5 Do you face any problem by passenger



Figure 4- 4.52 (a) Questionnaire survey about problems.



Figure 4-4.53 Reason of problems.





Figure 4-4.54 Questionnaire survey about train

4.6.7 Do you realize that if meter gauge or broad gauge line or two lines set it would have well?



Figure 4- 4.55 Questionnaire survey about railway.

## 4.6.8 Do you realize that if the situation of train station had developed it would



Figure 4- 4.56 Questionnaire survey about train.



## 4.6.9 Are train in service condition?

Figure 4- 4.57 Questionnaire survey about service condition.

#### 4.7 Photographic Survey: Dhaka to Narayanganj

Photographic survey of Dhaka to Narayanganj zone is given below,

## 4.7.1 Waiting Seat Limitatio

In this picture we can see that there are no enough seats to set the passenger.



Photo Collected

## Figure 4-4.58 Narayanganj Railway Station

Authority should make up rest house or increase some chair to set or rest the passengers.

## 4.7.2 Lack of Monitoring

We can see that bad environment in front of Narayanganj Railway Station



Figure 4- 4.59 Unhealthy Place In Front of Station.

Railway authority should take some steps to give a good environment of railway station to the passenger.

In the picture we can see that there is no enough stone under line and the slipper wood is very weak.



Figure 4- 4.60 Insufficient Stone under Line.



Figure 4- 4.61 Insufficient Stone & weak Wood.

Above the two pictures we can see that there is no enough stone under the line and the slipper wood is very weak. For this any kinds of crack will be happen in the rail line and accident will be happened. So Railway Authority should aware and repair these kinds of problems.

## 4.7.3 Lacking of Bonding

In this picture we can see that there is no bonding between two girders by nut.



## Figure 4- 4.62 Lacking of Bonding.

Because of no bonding between two girder rail may slip and accident will be happened. So authority should take care of this small problem because a big accident can be happened by a small problem.



Figure 4- 4.63 Sufficient Bonding.

In this picture we can see that enough stone under rail line and enough bonding between two lines.

## Lacking of Servicing

In this picture we can see a broken rail line.



Figure 4- 4.64 Broken Line.

In this picture we see a dangerous rail line. A big accident will be happened in such kinds of rail line. So authority should repair it before happening any accident.

#### 4.7.4 Lacking of Preservation

In this picture we can see that there is no preservation system.



#### Figure 4- 4.65 Beside Narayanganj Railway Station.

Many railway properties are destroying because lacking of persevering system. So railway authority should take some steps to preserve this property.

## 4.8 Limitations

#### **Poor Service**

In our country, the service in train is very poor. In economy class compartments sits are broken and dirty. Toilets are almost unusable, sometimes there no water in toilets. Another disgusting issue is hawkers. Ticketing system now has come to a digital system. But there are very long serials for buying it.

#### **Mismatching Of Schedule**

Mismatching of schedule is a common affair. In festival times, it happens frequently. Sometimes, one train has to wait on track for another train to pass a junction. It causes mismatching of schedule of whole system. Political restlessness is also responsible for mismatching of schedule.

#### **Insecure Routes**

Hijackers are very much active in railway tracks. Sometimes, the total train is hijacked or sometimes individual passengers while sitting in an empty compartment. Fish-plates of rail tracks are sometimes broken or removed due to political movement.

#### Corruption

In our country, there is corruption in almost everywhere. Railway system also include there. All types of mismanagement is happened due to corruption. No employs is working fair. Government implements large budget for railway service. But due to corruption common people do not get better service.

#### **Risk of Passengers on the Roof**

Though travelling on the roof is prohibited in our country but sometimes while offices and market breaks, many people get on the roof of train in Narayanganj and Camilla or other routes. It is very much risky. It happens also in rush time like, morning and festival time.

#### **Harassment in Purchasing Tickets**

To buy tickets from railway station, people have to wait for several hours in line. Online system does not provide all tickets. Black marketing of tickets has been as usual in festival times.



Photo Collected **Figure 4- 4.66 Kamlapur railway station during ticket purchasing.** 

#### 4.9 Conclusion:

After completing our surveying, there are two things which have uphold in data collection, 1) statistic by pie chart & 2) photo. We know that, two route visits did not properly possible to uphold the problem. Still it has tried to uphold the position of rail station. If rail problems are deeply observed, then solution may be found. Finally, once upon a time our rail section must be developed.

# CHAPTER 5 CONCLUSION AND RECOMENDATION

#### 5.1 Conclusion

From the study some problem were found in Dhaka to Cumilla and Dhaka to Narayanganj railway station. Administration problem is the main problem in Bangladesh Railway Transportation. There are no regular rules for getting up and down from the train. Infrastructures problems are one of the major problems in rail sectorsuch as toilet facilities are not good in train & station, stations are not clean enough to attract the people, shortage of lights and fans in the train & station also, hawker problem and most importantly shortage of trains compare to passengers. Sometime train schedule is dismissed by political strike. Lack of drainage system at railway station. Lack of stone in baluster in some lines. Lack of monitoring system in administration.

From pie chart according to passengers and stuffs major problems are, schedule problems (90%), Station problems (10%) Lack of waiting seat, fans in train & station (70%), Crossing problem (50%), Political problem (10%). There are several ways to solve this problem such as, station facilities should be developed, should set up dual lines & increase the number of train, Political problem should be considered.

#### 5.2 **Recommendations**

Based on the objectives and scopes of the study as well as discussions and conclusions that made on the obtained results, few recommendations can be proposed for the further studies

- □ The railway staff has to play a 100% effective role so that the passengers do not face any problem.
- $\Box$  Should be adequate drainage system at railway station.
- $\Box$  Provide adequate stone in baluster in all lines.
- □ Provide monitoring system in administration.
- □ Infrastructure problems should be minimized so that service quality can be increased.
- $\Box$  Number of trains must be increased.
- □ Government should give maximum priority to this sector

## **REFERENCES**

(Jessop 26 July (1803)) *Opened the survey iron railway in south Londonarguably.* 

(Oliver Evans (1812)) An American engineer and inventor, published his vision of what steam railways could become, with cities and towns linked by a network of long distance railways plied by speedy locomotive.

(Den Otter (1977)) Challenge popular assumption that Canada built transcontinental Railways.

(Cherepanovs (In the early 1830s)) built the first Russian steam locomotive.

(Bangladesh Railway (15 November 1862)) when 53.11 Kilometers of 5 ft. 6 in (1,676 mm) (broad guage) line were opened for traffic between Dorshona of Chuadanga district and Jogotee of Kustia District.

(Bangladesh Railway (1998)) 365 km are dual gauge Jamuna opened in to connect the previously detached east and west rail networks.