



Determinants of commuters' satisfaction with the existing transport system, with special reference to BUS service: An empirical study based on Durgapur-Bankura Bus transit.

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Abstract

The state of West Bengal has experienced a significant rise in population and urbanization over recent decades. Districts such as Bankura and Paschim Burdwan are no exception to this trend. The expansion of private organizations across these regions has encouraged commuters to travel longer distances between their residences and workplaces. Consequently, there has been a steady influx of population into both small and large urban centres over time. This rapid urban growth has exerted considerable pressure on the existing infrastructure and resources of the region. Among these, the transport system plays a crucial role as a determinant of economic development, both at the national and regional levels. The present study analyses the perceptions of commuters' who travel regularly for work, education, and other socio-economic purposes. To understand commuters' behaviour, demographic characteristics of the respondents have been examined. The study is based on both primary and secondary data. Primary data were collected through a structured questionnaire survey conducted at two major bus terminals, Durgapur and Bankura. Descriptive and inferential statistical techniques have been employed to analyse the data. The findings indicate several critical issues, including inadequate transport infrastructure, delays in bus services, unprofessional behaviour of bus staff, lack of awareness and negligence regarding traffic regulations, and poor conditions of metallic roads. Based on these findings, the study recommends that the number of buses should be increased to reduce overcrowding. Additionally, proper road maintenance and timely servicing of vehicles should be prioritized to effectively meet the needs and expectations of commuters.

Keyword: *urbanization, workplaces, influx, population, commuters, transport system.*

1) Introduction

Transport system is an integral component of both the rural and urban economy serves as one of the key indicators of development. Well-maintained and properly planned sustainable transport infrastructure acts as a driving force for the overall development of a nation. Population growth and transport infrastructure development are closely interrelated and tend to progress proportionately. West Bengal has witnessed a rapid population growth in recent decades (2001-2011) which is almost 13.84%. The selected districts such as Burdwan and Bankura, population shows a trend of positive increased. Decadal growth rate (2001-2011) of Bankura and Burdwan are 11.92% and 12.64% respectively (Directorate of Census Operations, West Bengal, 2011)The increasing trend of

population growth demands safe, sustainable, affordable and eco-friendly transport system. Study shows that low maintenance of roads, non-regularity fare, lack of cleanliness at bus stop can affect the mental as well as physiological health of the passenger and commuter (Anwasha Haldar and Srabanti Bera, 2021). Road Jam, overcrowded, punctuality and bus time schedule are of major concern (Khaled Shaabana1, Rania F. Khalilb, 2013). As the purpose of commuting is diverse that means a good number of employed persons also commute on the regular basis so they prefer AC bus service but the number of AC buses are not sufficient to cope up the needs of the commuters. (Saptarshi Sen, Sudip Kumar Roy , 2025) Study shows that bus stop safety and security were given low attention even in a large metropolitan city like New Delhi (Malavika Jayakumar, Prasanta K. Sahu, Bandhan Bandhu Majumdar & Agnivesh Pani , 2022). In this context, the present study focused on examining the demographic profile of commuters and their level of satisfaction with the bus transport system, which remains the primary mode of public transport along the Durgapur–Bankura Bus Route, apart from personal vehicles such as two-wheelers and four-wheelers. Demographic characteristics and travel preferences are considered inseparable components in understanding the significance of the issue. The study also aims to assess the existing transport facilities within the study area and to propose suitable suggestions and recommendations in cases where the level of commuter satisfaction does not meet expected standards.

2) Statement of the Problem

Satisfaction generally differs from person to person and is influenced by various demographic and socio-economic factors. However, a basic level of satisfaction is essential for commuters to maintain their overall quality of life. Daily commuters spend a considerable amount of time traveling to and from their workplaces or other destinations. Factors such as overcrowding, unhealthy travel conditions, irregular bus services, traffic congestion, unscheduled stoppages without designated bus stops, and the absence of adequate shelter at bus stops during extreme weather conditions significantly drain commuters' energy and negatively affect their well-being. In many cases, issues such as unfair fare practices and unprofessional behaviour by bus staff lead to conflicts, which can further impact commuters' mental health. This study aims to investigate the level of satisfaction among commuters regarding the existing bus transport system. Buses are given priority over other modes of transport in this region due to the absence of a direct railway connection to many destinations. The study focuses on the Durgapur–Bankura route, covering two important urban centres: Durgapur and Bankura. Durgapur is a major industrial hub in the western part of West Bengal, while Bankura is known for its agriculture-based economy. The linkage between these two regions has been historically strong. Over time, the development of Durgapur has attracted people from surrounding areas, including Bankura, for purposes such as education, healthcare, employment, and recreation. As a result, comfort and reliability have become crucial factors for commuters traveling by bus. Since buses remain the most affordable and widely available mode of transport covering an approximate distance of 41 km between these two locations, the increasing population pressure on the existing transport system has become a significant concern. Therefore, this study gives special emphasis to examining commuter satisfaction in relation to the growing demand and the current transport infrastructure in the study area.

3) Objectives of the Study:

The objectives of the present research study are as follows:

- To examine existing transport system in the study area.
- To identify and analyse the problems faced by commuters using the bus transport system.
- To determine whether there are significant differences in the overall level of satisfaction among bus commuters based on their demographic characteristics.

- 4) **Database:** The study is based on both primary and secondary data sources. Primary data were collected through a structured questionnaire specifically designed for the purpose of the study. The questionnaire included both open-ended and closed-ended questions to capture comprehensive responses from participants. Likert scale point data has been used for understanding commuter's satisfaction in this route. It was administered at two major bus stations, namely Durgapur Bus Station and Bankura Bus Station. State bus related information was collected from their official website(sbstc.co.in), Private bus related information that constitute major part in the bus service were collected through authentic website along with vehicles registration and timetable. Google earth, Google map, QGIS software and Microsoft excel have been used for spatial analysis and quantification.
- 5) **Methodology:** A pilot study was conducted prior to the main survey to gain preliminary insights into the problems within the study area and along the selected bus route. Based on the findings, a comprehensive structured questionnaire was developed. Two categories of respondents were included in the study: commuters, who constituted the primary group, and transport personnel, including bus drivers, conductors, and ticket counter staff. A total of 110 questionnaires were distributed for data collection. Snowball sampling method has been used to gather information from the commuters. Secondary data were obtained from various sources, including the Census of India, the District Census Handbook, the SBSTC website, and other authentic online sources related to bus transport. Following data collection, demographic information was analysed and presented using proportional diagrams such as pie charts, bar diagrams and area diagram. Statistical analysis such as correlation matrix between dependent and independent variables, was conducted using Microsoft excel. Additionally, the bus routes within the study area were mapped with the assistance of Quantum GIS (QGIS) software.
- 6) **Geographical setting of the Study area:** Two major urban units have been selected from the western part of West Bengal for this study: Durgapur in Paschim Bardhaman district and Bankura town in Bankura district. The geographical coordinates of Durgapur are approximately 23°29'39" North latitude and 87°19'03" East longitude, with an elevation of about 95 meters above mean sea level. Similarly, Bankura town is located at approximately 23°14'31" North latitude and 87°02'03" East longitude, at an elevation of around 125 meters (Source: Google Earth). The ground distance between two regions is 41 KM. The study area exhibits two distinct types of physiography: the plain lands of the Bardhaman region on one hand, and the degraded plateau region on the other. The Bardhaman tract is characterized by older alluvium deposits in certain areas, whereas the Bankura region displays reddish, coarse-textured lateritic soil, reflecting its Rarh physiographic characteristics. Agriculture forms the economic base of Bankura, where extensive agricultural fields are observed, particularly from the Beliatare bus stop up to the entry into the main town. In contrast, Durgapur is predominantly characterized by an industrial economy. The Damodar River flows across the study area, and bus routes connecting the two urban units must cross the Damodar Barrage, which was constructed in 1955 and has a length of approximately 692 meters. The barrage is operated and maintained by the Damodar Valley Corporation.
- 7) **Overview of existing transport system and bus route:** Both private and public bus services operate along the fixed route between Bankura and Durgapur. The bus fare varies depending on the distance travelled. According to available secondary sources (wbbus.in), a total of 99 private superfast buses operate on this route. Some of these buses run directly between Bankura and Durgapur, while others operate along the same corridor with intermediate stops. The major bus stoppages along the Bankura–Durgapur route include Barjora, Fulberia, Beliatare, Makurgram, Dhabani, Heavy More, Lakhatora Bridge, and Sathighat. Based on primary survey data, the total fare for travelling between Bankura and Durgapur is approximately ₹50. Public bus services are operated by the South Bengal State Transport Corporation (SBSTC) from Durgapur Bus Station. SBSTC buses are also available in the City centre bus station. At present, two SBSTC buses run directly between Durgapur and Bankura. In addition, a total of seven buses operate from Durgapur via Bankura to other destinations such as Digha, Gopiballavpur, Purulia, and Jamshedpur (Tata) (Source: sbstc.co.in). The fare charged by SBSTC is comparatively lower than that of private buses, amounting to approximately ₹43 for the journey between Durgapur and Bankura. State Highway 9 is the primary roadway connecting Bankura and Durgapur, playing a crucial role in regional transportation and connectivity. Details of some private buses operating along this route,

along with their registration numbers, are provided below.

Bus name	Type	Registration no	Depot name	destination
PRAPTI	Non-AC	WB19F1740	Bankura	Durgapur (Station)
ISHIKA	AC	WB41K2500	Chittaranjan	Digha
LAL PARUL	Non-AC	WB67B7403	Bankura	Durgapur (Station)
JINIA	Non-AC	WB37H1264	Asansol	Digha
WASIF	Non-AC	WB67A7331	Bankura	Durgapur (Station)

Source: wbus.in

DURGAPUR-BANKURA BUS ROUTE

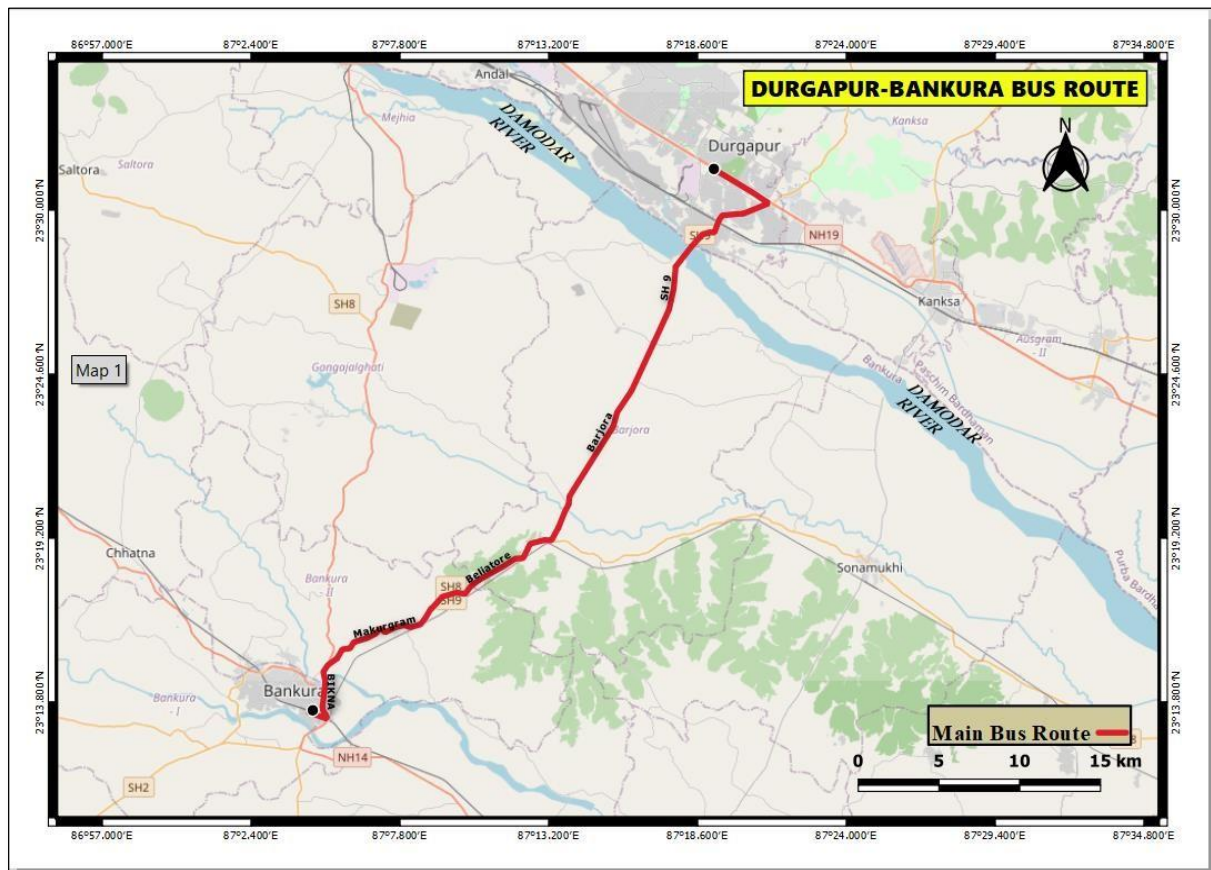


Figure 1 : Prepared by Author

8) Result and Discussion

a) Demographic profile of the Commuters

i) **Gender:** The entire study has found male dominance in terms of commuting from Durgapur to Bankura or vice versa. As the distance is not so far and nor too little, so the commuters are predominantly male and a significant percent of women are willing to travel on regular basis. In this study 70% commuters are male and 30% commuters are female. As per the law of migration, females prefer to work nearby of their house, the low percentage can be a reason of this matter.

ii) **Age Group:** The study showed 66% respondent belongs to 18-30 years. They are mostly students and salary holders who commutes on regular basis due to their education and Job. Recently few private educational organizations set up at Durgapur and students are commuting there for getting high quality of education service. In the current decades, Bankura is also showing an improving trend as an educational hub and growing privatized economy. 14% commuters belong to 31-45 years age group. 18% commuters belong to 45-60 age group and a very little number of commuters who belongs to above 60 age, travels between two urban area is 2%.

iii) **Educational Qualification:** Education is an important parameter that decides not only the financial support but also the type of Job they get on the basis of it. The study expressed 70% respondents have completed post-graduation. 20% respondents have completed Graduation. 4 % commuters have completed 12th and remaining 6% have passed only class 10th. From the above computation, it is clearly observed that most of the commuters are well educated.

iv) **Occupation:** The study shows the diversity of various occupation and also the presence of non-earning respondent. 84% Respondents are engaged in service, 6 % respondent are businessman, 10% respondents are students and non-earning person. From the study it is clear that mostly the purpose of migration is for occupation which are service or business and education.

v) **Income:** 68% respondent's income is between 10,000-3,0000. 26% respondent is earning more than 30,000 per month and 6% respondent's income

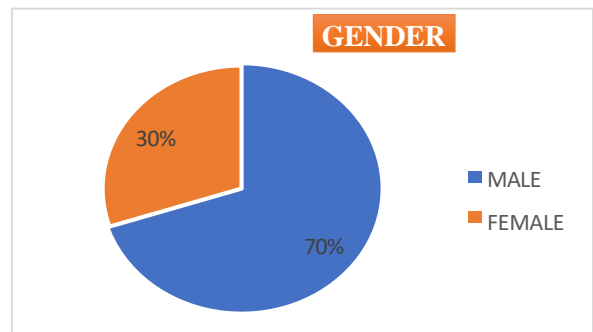


Figure 2

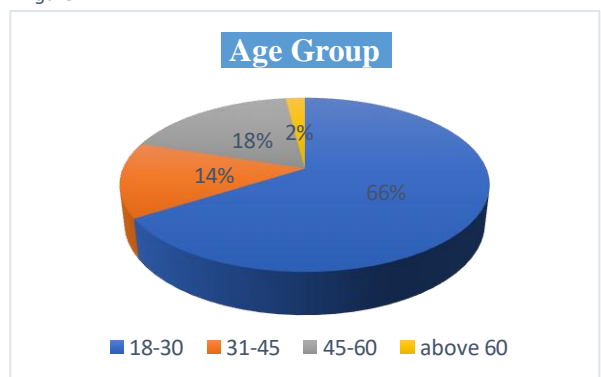


Figure 3

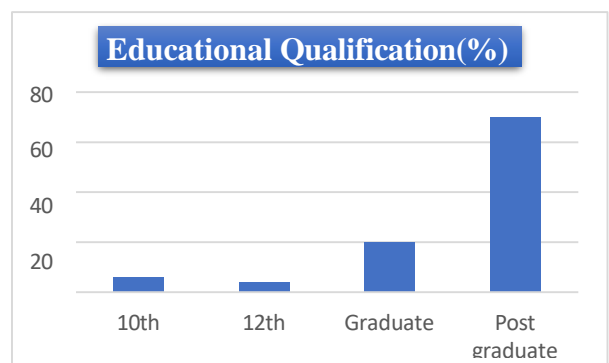


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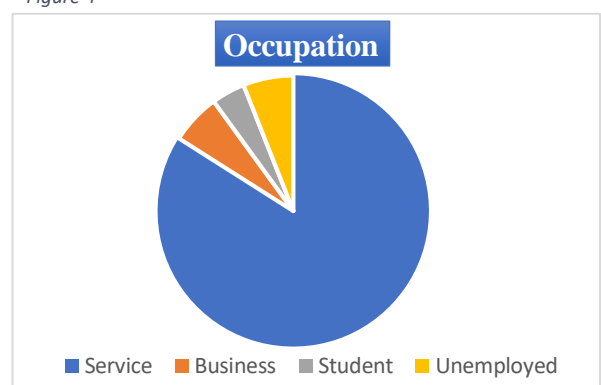
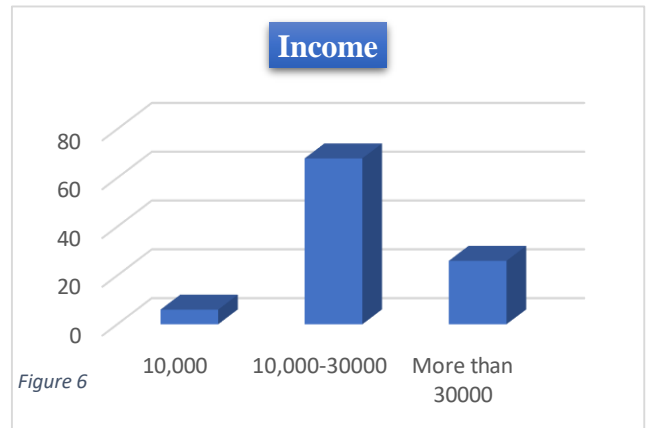


Figure 5

is less than 10,000 per month. From the given study it is clear that a significant amount has to be paid for commuting on a regular basis by bus. The question also involved about the bus concession but the result showed that there is no concession for daily passengers or students in this fixed route.

Income	(%)
10,000	6
10,000-30000	68
More than 30000	26

Table 1: Computed by Author



9) Bus service attributes and travel experience:

a) Type of bus service opted for and Duration of commuting

In the specific route of Bankura-Durgapur, both the public and private AC and NON-AC buses are available. 69.4% commuters have stated that they choose the buses on the basis of their convenience. 25% respondent avail only public bus, SBSTC and 5.6 percent commuters have chosen private NON- AC for commuting on regular basis. In this study, 45% commuters are travelling more than 5 years, 8 % is traveling around 3 to 5 years, 28% commuters are travelling around 1-3 years and 20% commuters are travelling to last 6th month to 1 year.

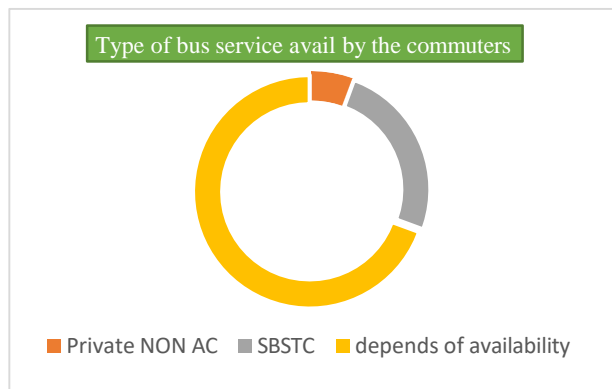


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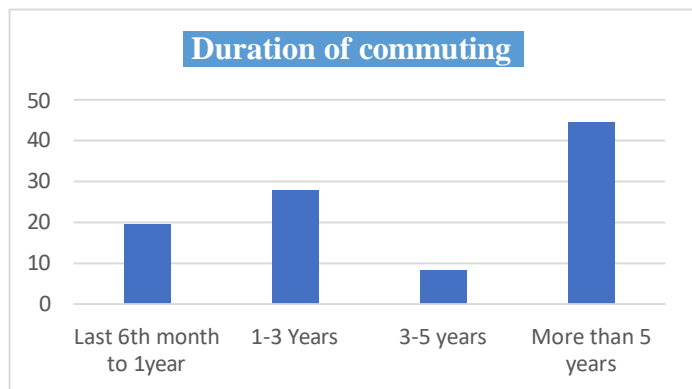


Figure 8

b) Trip duration and Road condition

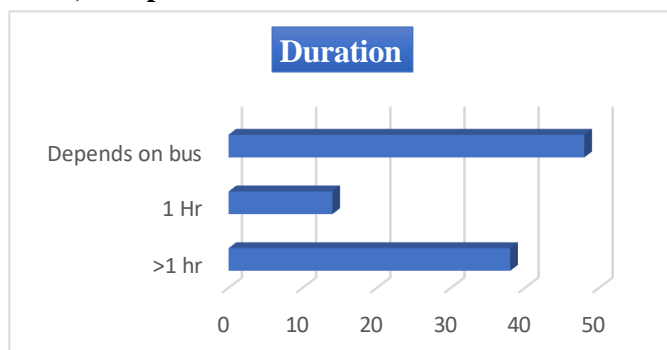


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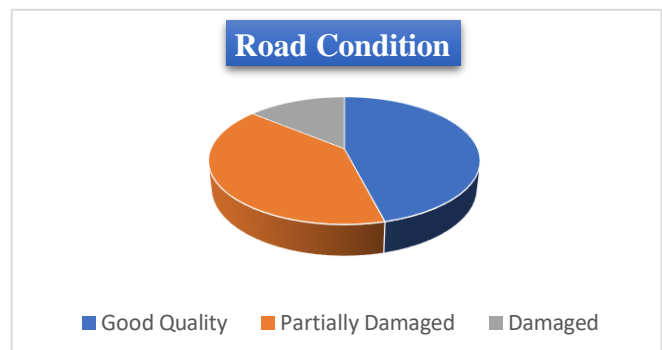


Figure 10

Commuters gave different opinion regarding road condition and trip duration but majority shows negative behavior. 46% respondents said roads are damaged, 40% Stated roads are partially damaged and 14% respondents are overall satisfied with the road condition in this trip. Duration of the bus service is not at all satisfactory where 48% respondents stated the duration is not fixed, it depends on the vehicle and 38% and 14% respondents stated that time is more than one hour and 1 hour respectively. Respondents have pointed out few areas that needs to be repaired.

c) Bus speed and time interval

19% respondent stated that the bus speed is very fast, and 44% respondent told it is fast. 37% respondent stated that the speed is moderate. Actually, the buses in this route is super-fast so they maintain a speed to vey speed to minimize the time. Buses are available at 15 minutes interval. But

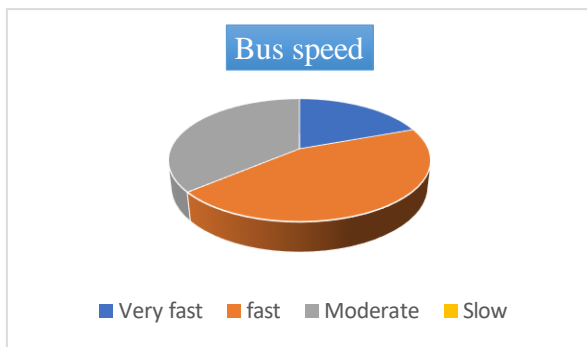


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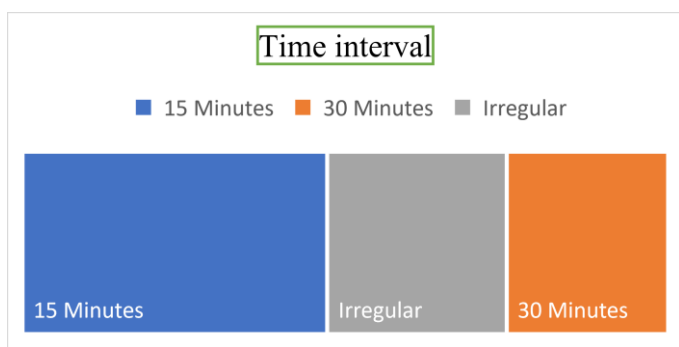


Figure 12

a signification number 28% told that the interval between two buses is very irregular in this route.

d) Peak time of Overcrowding and bus fare:

In this route, basically two time have been taken for maximum crowd in the bus, one is morning between 6:00 AM to 9:00 AM and in the afternoon between 12:00 PM to 3:00 PM. Most of the cases in this time, the buses are crowded by commuters in this route. The most important fact in this study area is the ticket fare which is not the same between two urban units. SBSTC bus fare is 43 rupees from Bankura to Durgapur station which is fixed but in private buses the bus fare depends on the particular bus. There is no concession for students or daily passengers. The commuters showed negative behavior regarding this matter in this study area.

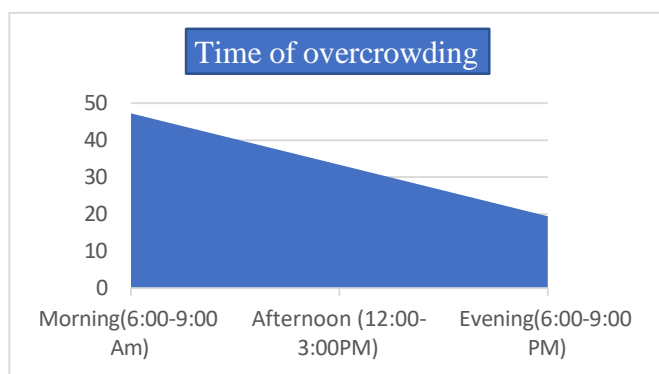


Figure 13



Figure 14

10) Commuters' Experience Survey

a) Satisfaction regarding physical condition of the bus:

Based on Likert scale data point data, commuter's satisfaction related to physical attributes are given below.

Commuters satisfaction score (%)					
Physical condition					
Attribute	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly satisfied
The condition of windows and doors	8.3	36.1	36.1	16.7	2.8
The cleanliness of the buses	19.4	38.9	33.3	8.3	0
The condition bus stop	5.6	52.8	19.4	22.2	0
The hanging belt for standing commuters	31.4	25.7	25.7	17.1	0
The adequacy of space for standing commuters	27.8	41.7	19.4	11.1	0

Table 2: Computed by Author

Majority of respondents are dissatisfied with the condition of window and doors. They complained for the window that is loose, flexible that sometimes open automatically due to the vibration occurs while running the vehicles. The old vehicles are not at all clean, claimed by the respondents. Hardly in few buses, proper arrangement of hanging belts are there for standing commuters. The seating arrangement is not at all proper. The space between two pair of seats and between two rows is not so much to stand but conductor make the passengers stand three persons in between two rows. The condition of the bus stop is very poor and sometimes unhygienic. In some bus stoppage, there is no shade. Commuters suffer during the day time specially at noon. Commuters stated few names where shade is not there in the bus stop (table 3). Passenger also mentioned that Stops are mostly non- functional or occupied in village stops. In both stop bus stand is there but fan, drinking water and toilet is extremely essential for the passengers arranged by concerned bus services.

Inadequate shade at bus stops	<ul style="list-style-type: none"> • Bankura bypass, • Heavy more, • Kadmaghati, Belboni, • Sati ghat, • Barjora, • Hat asuria.
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Table 3: Collected through primary survey

b) Satisfaction regarding behavior of the bus driver and conductor:

Behavioural Satisfaction score (%)					
Attribute	Never	Rarely	Sometimes	Mostly	Always
Rude conductors	16.7	25	38.9	19.4	0
Announcement of bus stop names by the conductor	8.3	8.3	13.9	41.7	27.8
The response to queries and complaints by staff (depot/bus staff/call Centre)	2.8	25	50	22.2	0
The behaviour of the driver	0	16.7	55.6	27.8	0
Issue of giving exact change for tickets	27.8	22.2	30.6	13.9	5.6

Table 4: Computed by Author

Passengers mental satisfaction depends on behavioral pattern. Journey is an energy consuming process so rough or unpleasant behavior makes the life more hectic and drained. In this study, commuters show mixed reaction with the behavior of bus conductor and both drivers. Study shows that bus conductors are sometimes behave rudely, announcement of bus stop name is not clear sometimes. The high weightage regarding negative behavior in the table is supporting the statement as a whole the behavior of bus driver and argument with another bus driver is sometimes disturb the environment inside the bus. The most irritating part of the commuters this survey found giving the exact change for the ticket. Bus conductors behave very rude manner with the passenger in this case. They expect the passenger would carry exact fare with them. Sometimes the conductor having the changes, but still denied to give the passenger and humiliate them.

c) Satisfaction regarding safety and security

Safety and Security score (%)					
Attribute	Highly dissatisfied	Dissatisfied	Neutral	Satisfied	Highly satisfied
The use of the latest technology/equipment (GPS, mobile charging, wheelchair, etc.)	52.8	22.2	22.2	2.8	0
CCTV surveillance inside the buses	55.6	27.8	16.7	0	0
Competence of the driver (driving skills)	0	8.3	61.1	30.6	0
The convenience for elderly, pregnant ladies and person with disabilities	30.6	19.4	27.8	19.4	2.8

Table 5: Computed by Author

The safety and security are also an integral part to decide the satisfaction level of the commuters. According to passenger's opinion and personal observation of the researcher, hardly there are buses where the modern tracking techniques like GPS, mobile charging and wheelchair facilities are

available. CCTV surveillance is also absent in many cases. The speed of the bus is sometimes so high that feels accident prone for the passengers. Overtaking to reach in the destination on time is also one risk factor in this study region. It has been observed that the facility for elderly, pregnant ladies and person with disabilities are hardly available in the bus. Sometimes passenger ethically leave their seat to make them sit. No concrete rules or regulation are there.

d) Satisfaction regarding the bus service

Bus service score (%)					
Attribute	Never	Rarely	Sometimes	Mostly	Always
Poor Frequency	11.1	38.9	38.9	0	11.1
Overcrowded	0	8.3	38.9	41.7	11.1
Seat Availability	0	16.7	58.3	19.4	5.6
Bus stops are encroached by hawkers, beggars and pavement dwellers	16.7	22.2	27.8	30.6	2.8
Noise level and vibration of the buses	0	5.6	30.6	30.6	33.3
The comfortability of seats inside the buses	19.4	36.1	30.6	13.9	0
Availability of information at the bus stops/depots	11.1	19.4	41.7	27.8	0
Back up facilities in case of breakdown	36.1	27.8	30.6	5.6	0

Table 6: Computed by Author

The poor frequency of buses is not at all a major problem in this region. But The buses are overcrowded. The peak hours are Morning and afternoon that means when people commute to their destination and finally return back at the end of the day. Majority stated that bus stops are encroached by hawkers, beggars and pavement dwellers. If we look into the matter of comfortability of seat, it is not at all pleasant as expected. The road condition is not very good that's why it creates noise and vibration inside the bus. Bus related information is available in most of the cases. In case of breakdown, there are hardly any prior management to cope up this problem.

11) Data analysis and interpretation

The correlation matrix shows the relationship between different factors affecting commuter's perception of bus services. The values range from -1 to +1 indicating negative to positive relationships. Some variables show moderately strong positive correlation. Those are cleanliness and noise level and vibration (0.604), cleanliness and condition of window and doors (0.565). It can be interpreted as well-maintained buses tend to be cleaner, quieter and structurally better. These factors reflect overall maintenance quality. Many variables expressed moderate positive correlation. Those are Seat comfort and cleanliness, seat comfort with overall satisfaction, noise and overall satisfaction, cleanliness and overall satisfaction and window condition with overall satisfaction. Driver behavior

shows weaker correlation that means it has less influence compared to physical conditions of the bus. Overcrowding has a negative impact on almost all service aspects. The analysis reveals three key indicators, strong influence has been found at cleanliness, noise and vibration and window and doors condition. Moderate influence has been seen at the behavioral factor and capacity issues like overcrowding and seat availability shows negative influence.

Correlation Matrix

Table 7: Prepared by Author

	<i>The comfortability of seats</i>	<i>Adequacy of space for standing commuters</i>	<i>Noise level and vibration</i>	<i>The behaviour of the driver</i>	<i>The cleanliness of the buses</i>	<i>overall satisfaction of bus service</i>	<i>The condition of windows and doors</i>	<i>Overcrowded buses</i>	<i>Seat availability</i>
The comfortability of seats	1								
The adequacy of space for standing commuters	0.469515	1							
Noise level and vibration	0.385051	0.47993	1						
The behaviour of the driver	0.448398	0.292368	0.223354	1					
The cleanliness of the buses	0.493581	0.473992	0.604005	0.218014	1				
Overall satisfaction if bus service	0.44451	0.100024	0.494517	0.328541	0.44617	1			
Condition of windows and doors	0.434963	0.279078	0.494913	0.348214	0.564532	0.395743	1		
Overcrowded buses	-0.2478	-0.0688	0.28701	0.019811	-0.4267	0.29821	0.38136	1	
Seat availability	0.416552	0.00343	0.386747	0.163863	0.448554	0.179138	0.283305	-0.47528	1

Correlation matrix techniques has been used for this study to show the relationship between the major variables. Here, pink shade is showing the negative relation among the variables and various shades of blue color is representing the positive correlation among the variables.

12) Suggestions from the commuters

Commuters' suggestion for the improvement have been asked and their responses are enlisted below.

- a) Ladies, senior citizen, physically handicapped section of seats should be followed.
- b) More number of AC buses are required in this route.
- c) Driving speed should be in controlled.
- d) Buses must display the fare chart.
- e) Most of the time, buses take extra passengers more than the capacity which leads to overcrowding and inconvenience during the journey.
- f) Student concession must be there.
- g) It is the government's responsibility to increase the number of buses after 6 pm.
- h) AC bus service is required to increase in this route, toilet, drinking water and the passengers sitting arrangement especially older and patients are required.
- i) There should be proper timetable chart. Proper seating availability and waiting room should be in proper condition.
- j) Number of good conditioned buses should be increased and information of real time availability of bus in every stoppage must be ensured.
- k) More developments both technological and institutional area are expected.
- l) Proper cleanliness in buses is required.

13) Major findings

- a) Women commute less compared to men. It shows the lack of a safe and quality service is provided in this route.
- b) The majority of commuters belong to the 18-30 years age group in the study area. Younger age group mostly participate in commuting journey. So, age is an important demographic factor.
- c) About 70% respondents have completed postgraduate education. Responses have been gathered are logical, scientific and experiential.
- d) Around 84% of the respondents are salaried employees while 10% are students who commute for educational purpose.
- e) There are no concessions available for students or daily passengers.
- f) Approximately 70% commuters choose the type of bus based on its availability at a particular time. Sometimes buses are not found without prior information at the bus stop.
- g) About 45% commuter have been travelling for more than 5 years, indicating that they have detailed knowledge of the service on this route.
- h) Around 86% respondents are not satisfied at all with the road condition on this route. The area found at Bankura More, Green garden road, Station road etc.
- i) The travel time between two stations is nit fixed; it depends on the bus. Sometimes it takes more than one hour to reach the destination due to numerous stoppages, even for buses categorized as superfast.
- j) The time frequency of buses is irregular commuters reported intervals of 15 minutes, 30 minutes and sometimes longer.

- k) Peak overcrowding occurs in the morning between 6:00 and 9:00 PM and in Afternoon between 12:00-3:00 PM.
- l) Older vehicles are poorly maintained and not clean. Proper arrangements such as hanging belts for standing passengers are often lacking in many buses.
- m) The behavior of bus drivers and conductors is often rude. It hampers the mental health of the commuters.
- n) Conductors sometimes have change but refuse to give it to commuters and may even humiliate them.
- o) There is no special arrangement for pregnant women, physically challenged individuals or elderly passengers.
- p) The space between rows is very limited, making it difficult to stand. Conductors sometimes carry heavy load intentionally to earn extra profit.
- q) Proper bus shelters and shade are absent at many stoppages including Bankura bypass, heavy more, Kadmaghati, Satighat, Barjora and Hat Asuria.
- r) Most buses lack CCTV surveillance. Safety and security issues are there.
- s) Rash driving and overtaking are a common practice in the study region.

14) Conclusion

The present study reveals that overall commuter satisfaction is significantly low in the study area. The findings indicate that although bus service remains the primary mode of transport for a large section of salaried individual and students, the quality of service is affected by multiple interrelated factors. Key determinants such as irregular bus frequency, poor road conditions, overcrowding during peak time, lack of cleanliness, absence of basic passengers' amenities, and unprofessional behavior of staff collectively contribute to dissatisfaction among commuters. Additionally, the absence of concessions, inadequate safety measures like CCTV, lack of inclusive facilities for vulnerable groups further aggravate the situation. Based on these findings, several measures can be suggested to improve commuter satisfaction. Firstly, there is a need to ensure regular and reliable bus frequency with a fixed timetable to reduce uncertainty and waiting time. Secondly, improvement of road infrastructure is essential to reduce travel time and enhance comfort. Thirdly, strict monitoring of driver and conductor behaviour should be implemented through training and accountability mechanisms. Introducing concessions for students and regular passengers can make the service more inclusive and affordable. Moreover, upgrading older buses, maintaining cleanliness, and providing basic facilities such as proper seating, hanging belts, and adequate space are necessary. The installation of CCTV cameras and implementation of safety regulations can enhance passenger security. Special provisions should also be made for elderly, physically challenged, and pregnant passengers. Lastly, development of proper bus shelters at all major stoppages will improve the overall commuting experience.

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