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A Study on Passengers' Perception of Bus Transportation Services in Kolkata City

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ABSTRACT

The intention of this research to investigate the passengers' perception on the bus transportation services that are available in the city of Kolkata. In order to accomplish these goals, a systematic schedule was devised for the purpose of conducting interviews with bus passengers in Kolkata for the purpose of primary data collection. In all, there were three hundred people who responded to the survey (bus passengers). Convenience sampling, also known as non-probability sampling, was the method of sampling that was utilized. Statistical analysis, including percentage, mean, and Chi-square analysis, was performed on the data that was gathered, and the results were tallied and scored. SPSS Statistics 17.0 was utilized in order to do the analysis on the data. Utilizing the technique of percentage analysis, the demographic characteristics of the bus passengers were studied. An analysis using Chi Square was performed to determine the association between gender and the option of travel, travelling objective and occupation, preferred mode of travelling and traveling duration (per day). With the assistance of Mean, the amount of money spent on traveling per day was determined based on the age of the passengers. The findings of the study showed that there is a substantial association between gender and option of travel, that there is a significant association between the travelling objective and occupation, and that there is a significant association between the preferred mode of travelling and traveling

duration (per day).

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1. INTRODUCTION

Today Service Sectors accounts for more than half of GDP and it reflects that the importance of service sectors in Indian economy. Among all service sectors the main service sectors are Information technology sector (IT), educational sectors, financial services sectors, media sectors, hospitality sectors, hotel Sectors, Entertainment sectors, Transportation sectors, Tele communication sectors, Healthcare sectors, Tourism sectors, Real estate sectors.

Public transportation is an essential aspect of India's economy among all service industries. The public transport is a part of ever once day to day activity which is used by the majority of the individual. The service industry in general and the public transportation in particular plays vital role in service marketing area. Due to the advancement of modern technology passengers are having huge number of choices for the transportation purpose.

Furthermore, unlike earlier studies that concentrated on service industries such as banks, healthcare, communication, insurance, and so on, the researchers took into account public transit (bus facilities), which truly depicts service features in nature. Additionally, this research sought to study the passengers' perception of bus transportation services in Kolkata city.

2. STATEMENT OF THE PROBLEM

i. Unlike physical things, services cannot be seen, felt, heard, or smelt before purchase.

ii. Intangibility produces a sense of doubt regarding the outcome of the service. In the case of public transportation (bus facility), the passenger has no idea what the actual consequence of the encounter will be before using the service.

iii. Services are inextricably linked since they cannot be separated from the service provider. In reality, the service is delivered and consumed concurrently.

iv. Services are very changeable since it is nearly difficult to receive the same service from the same source a second time.

v. Services are perishable since they cannot be preserved. Passengers contribute to service creation, therefore it is not a one-sided activity. Passengers in the service sector, such as public transportation (bus facilities), will gain experience but not ownership.

Hence, the presents study is to highlight A study on passengers' perception of bus transportation services in Kolkata city and making an attempt in this direction to solve the stated problem.

3. OBJECTIVE OF THE STUDY

i. To study demographic characteristics of bus passengers in Kolkata.

ii. To study passengers' perception regarding Bus transport services in Kolkata.

4. HYPOTHESES

Chi-Square

i. There is no association between gender and option of travel.

ii. There is no association between travelling objective and occupation.

iii. There is no association between preferred mode of travelling and travelling duration (per day).

TABLE 1 RESEARCH METHODOLOGY

SL. NO.	Instruments	Description
1.	Research Design	Descriptive in Nature
2.	Study Area	Kolkata
3.	Study Population	Bus passengers in Kolkata
4.	Sampling Unit	Public and private bus passengers in kolkata
5.	Sample Size	300
6.	Sampling Method	Convenience sampling
7.	Sources of Data	Primary and Secondary

8.	Source of Primary Data	Respondents (bus passengers) by Interview Schedule
9.	Source of Secondary Data	Journals, books, magazines, internet sources and library references
10.	Tools Used	Percentage, Mean, Chi-Square

5. REVIEW OF EARLIER LITERATURE

Dhingra et al. (1986) [1] show that bus density, the occurrence of accidents and breakdowns, frequency and crew behavior, travel-time ratio, accessibility, and waiting time are the most important and relevant factors of transport service quality.

Umrigar et al., (1988) [2] assessed the service on the parameters of service attributes such as operational, cost, quality & quantity variables viz. travel, time & reliability to assess urban bus services. Study conclude that the performance of private sector scores are superior on certain dimensions than the public sector related to services.

Sayak Gupta and A. Vanitha (2015) [3] examined the gap relating to service quality in transportation (Bus facility Services), to know the passenger's satisfaction relating to service quality dimensions on loyalty. The results assist the bus transportation authorities to design their strategies relating to services adequately.

Panduranga Murthy (1995) [4] investigated the customer service aspects of bus passenger transportation and identified the relevance of product characteristics, pricing, and quality in improving consumer satisfaction with bus services. The primary criteria mentioned are customer service, timeliness, dependability, safety, and consistency.

According to Tor Wallin Andreassen (1995) [5], industries such as public transportation have poor utility owing to variances in service category and consumer preferences. Deregulation and privatization are strategies that have been shown to increase projected utility.

Vijayaraghavan (1997) [6] examined the perceptions on service quality of transport services of the road transport undertakings. It revealed that perceptions on road transport service quality are not up to the

expectations level. The quality of service of private bus operators is superior than service quality of operators like public transport.

John Disney (1998) [7] point out the top essential of bus services to compete in transport services. These are namely friendliness of service, frequency of services reliability, value for money clean interiors of the buses, easy access, comfort of vehicles, easy to understand and remember time tables and reasonable fares.

Bindhu and Sathiskumar (2001) [8] measured the subjective analysis of abstract attributes. various abstract attributes such as reliability comfort, economy and feeling are associated with decision making process of users to prefer bus as a transportation mode.

Ramamoorthy and Ponnuraj (2001) [9] spotlighted the fact about the perception of passengers' relating to the punctuality and time, social responsible and Crew behavior, physical comfort, safety is crucial factor leads to customers' satisfaction on road transport. They also mentioned that crew politeness, , journey time, cheaper rates, normal speed of bus, seating arrangement comfortability when compared with the travel in train have high factor loading and influence significantly the perceptions of passengers' of omnibus services.

Lagrosen and Lagrosen (2003) [10] analyzed the service quality improvement in public sector services in competitive world. Initially the improvements was confined to private services however it is becoming evident in public sector.

Roy and Datta (2005) [11] examined the perception relating to the different modes of public transport. They point out that bus service is preferred due to comfort and travel speed. Bus transportation has better fares and a better transit network than other modes of transportation. Inside the vehicle safety feeling, drivers' capability, body condition &interaction between other vehicles and vehicle in road.

Sayak Gupta and A. Vanitha (2016) [12] examined demographic factors impact in the assessment of bus transportation service quality. The outcome disclose that travelling distance, travelling frequency, residential location, age, bus fare per day (average), preferred Mode of travelling are vital in the assessment of quality of services.

Arawati et al. (2007) [13] found a high link between aspects of service quality, service performance, and customer satisfaction. Service providers labeled as good were rated the highest in terms of accessibility, responsiveness, and credibility.

6. DATA ANALYSIS & INTERPRETATION

TABLE 2: RESPONDENTS GENDER

SL. NO.	GENDER	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL
1.	**Male**	219	73.0
2.	**Female**	81	27.0
TOTAL		**300**	**100.0**

Source: Computed Primary data

Table 2 indicates the respondents gender. Out of 300 respondents, 73.0% are men and 27.0% are women.

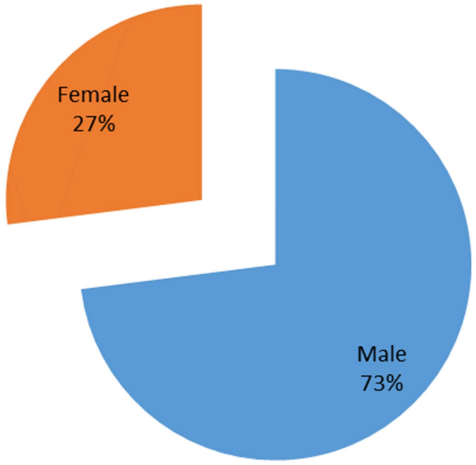

Fig. 1: RESPONDENTS GENDER

TABLE 3: RESPONDENTS AGE

SL. NO.	AGE (in Years)	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL
1.	**13 - 19**	32	10.7
2.	**20 - 29**	120	40.0
3.	**30 – 39**	91	30.3
4.	**40 - 49**	26	8.7
5.	**60 & above**	31	10.3
TOTAL		**300**	**100.0**

Source: Computed Primary data

Table 3 indicates respondents age. Out of 300 respondents, 10.7 percent are between the ages of 13 and 19, 40.0% are between the ages of 20 and 29, 30.3% are between the ages of 30 and 39, 8.7 percent are between the ages of 40 and 49, and 10.3 percent are 60 or older.

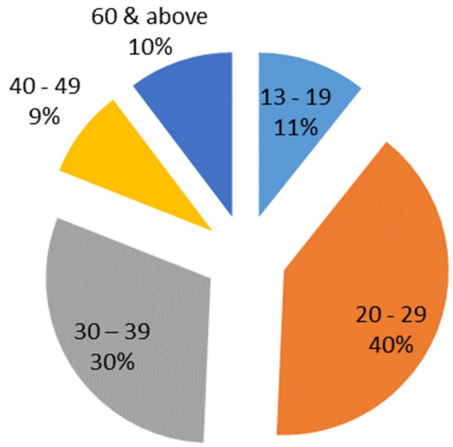

Fig. 2: RESPONDENTS AGE

TABLE 4: RESPONDENTS MARITAL STATUS

SL. NO.	MARITAL STATUS	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL
1.	**Unmarried**	139	46.3
2.	**Married**	161	53.7
TOTAL		**300**	**100.0**

Source: Computed Primary data

Table 4 indicates the respondents' marital status. Out of 300 respondents, 43.3% are unmarried, while 53.7% are married.

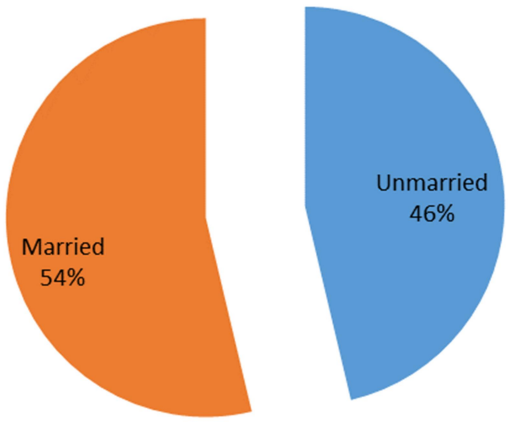

Fig. 3: RESPONDENTS MARITAL STATUS

TABLE 5: RESPONDENTS EDUCATIONAL QUALIFICATION

SL. NO.	QUALIFICATION	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL
1.	**Illiterate**	19	6.3

2.	**SSC/Diploma**	91	30.3
3.	**Degree**	140	46.7
4.	**PG & above**	50	16.7
	TOTAL	**300**	**100.0**

Source: Computed Primary data

Table 5 indicates respondents educational qualification. Out of 300 respondents, 6.3 percent are illiterate, 30.3% have education up to SSC/Diploma, 46.7% have education up to Degree, and 16.7 percent have a PG & above certification.

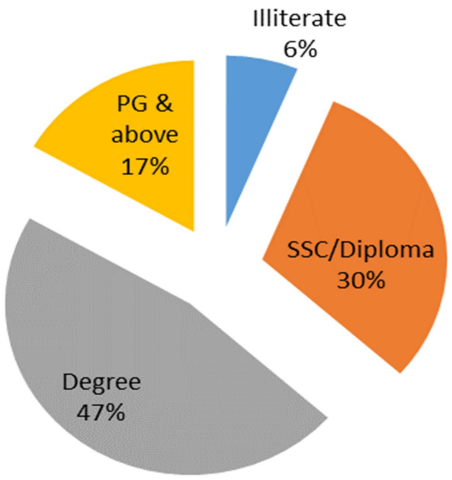

Fig. 4: RESPONDENTS EDUCATIONAL QUALIFICATION

TABLE 6: RESPONDENTS OCCUPATION

SL. NO.	OCCUPATION	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL
1.	**Daily wage earner**	17	5.7
2.	**Student**	72	24.0
3.	**Self Employed**	28	9.3

4.	**Businessman**	31	10.3
5.	**Govt. Service**	39	13.0
6.	**Private Service**	65	21.7
7.	**Home Maker**	22	7.3
8.	**Pensioner**	26	8.7
	TOTAL	**300**	**100.0**

Source: Computed Primary data

Table 6 indicates respondents occupation. Out of 300 respondents, 5.7 percent are daily wage earners, 24.0 percent are students, 9.3 percent are self-employed, 10.3 percent are business owners, 13.0 percent work in government, 21.7 percent work in private, 7.3 percent are homemakers, and 8.7 percent are pensioners.

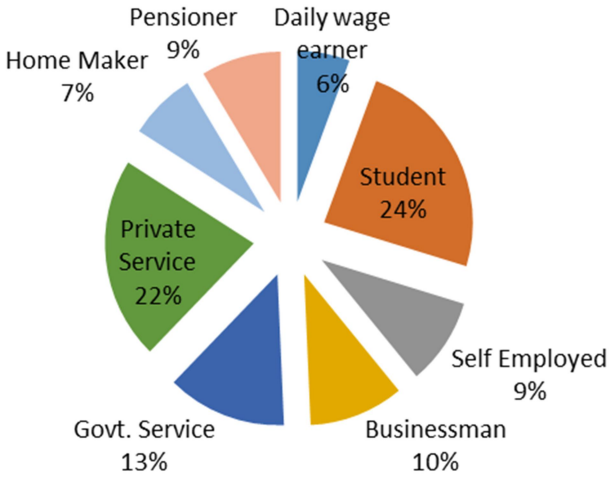

Fig. 5: RESPONDENTS OCCUPATION

TABLE 7: RESPONDENTS MONTHLY INCOME

SL. NO.	INCOME (IN RUPEES)	NUMBER OF RESPONDENTS	PERCENTAGE (%) TO TOTAL

1.	**NIL**	93	31.0
2.	**< 5000**	13	4.3
3.	**5000– 10000**	52	17.3
4.	**10001– 25000**	75	25.0
5.	**25001– 35000**	49	16.3
6.	**> 35001**	18	6.0
	TOTAL	**300**	**100.0**

Source: Computed Primary data

Table 7 indicates respondents monthly income. Out of 300 respondents, 31 percent have no income (NIL), 4.3 percent have a monthly income less than 5000 rupees, 17.3 percent have a monthly income between 5000 and 10000 rupees, 25.3 percent have a monthly income between 10001 and 25000 rupees, 16.3 percent have a monthly income between 25001 and 35000 rupees, and 6% have a monthly income greater than 35000 rupees.

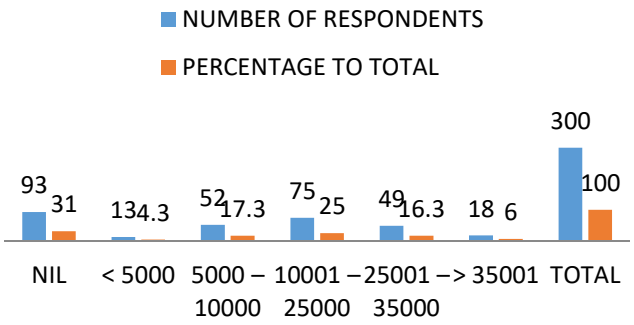

Fig. 6: RESPONDENTS MONTHLY INCOME

TABLE 8.a: EXISTANCE OF ASSOCIATION BETWEEN GENDERS WITH OPTION OF TRAVEL

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.849[a]	3	.000
Likelihood Ratio	15.855	3	.001
Linear-by-Linear Association	2.568	1	.109
N of Valid Cases	300		

Source: Computed Primary data

Table 8.a examined the association between the respondent's gender and the option of travel. To assess the association, the Chi-Square test was used on the contingency table of Gender and Option of Travel. The calculated Pearson Chi-Square value is less than 0.05 ($P < 0.05$), hence the null hypothesis is rejected. It signifies that the selected two variables have a substantial association, allowing for the creation of a cross table for the specified variables.**TABLE 8.b:** GENDER OF THE RESPONDENT BASED ON OPTION OF TRAVEL

	OPTION OF TRAVEL				
GENDER	Use Bus for travelling purpose when the problem of own vehicle	Use Bus for travelling purpose even own vehicle is available	Use Bus for travelling purpose occasionally	Use Bus for travelling daily in absence of own vehicle	**TOTAL**

Male	10 (3.3)	15 (5.0)	14 (4.7)	180 (60.0)	**219** **(73.0)**
Female	4 (1.3)	5 (1.7)	19 (6.3)	53 (17.7)	**81** **(27.0)**
TOTAL	**14** **(4.7)**	**20** **(6.7)**	**33** **(11.0)**	**233** **(77.7)**	**300** **(100.0)**

Source: Computed Primary data, Note: Figures in brackets indicate percentage to total

Table 8.b presents information on the gender of respondents based on their mode of travel. Out of 73% of male respondents, 3.3 percent use buses for travel when there is a problem with their own vehicle, 5% use buses even when their own vehicle is available, 4.7 percent use buses for travel on occasion, and 60 percent, or the majority of male respondents, use buses for travel on a daily basis when there is no own vehicle. Out of 27 percent of female respondents, 1.3 percent use buses for travel when there is a problem with their own vehicle, 1.7 percent use buses even when their own vehicle is available, 6.3 percent use buses for travel on occasion, and 17.7 percent, or the majority of female respondents, use buses for travel when there is no own vehicle.

TABLE 9.a: EXISTANCE OF ASSOCIATION BETWEEN TRAVELLING OBJECTIVE WITH OCCUPATION

	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	658.345[a]	28	.000
Likelihood Ratio	554.745	28	.000
Linear-by-Linear Association	.212	1	.645

N of Valid Cases	300		

Source: Computed Primary data

Table 9.a investigated the presence of a association between Travelling Objective and Occupation. To assess the association, the Chi-Square test was used on the contingency table of the Travelling Objective and Occupation. The calculated Pearson Chi-Square value is less than 0.05 ($P < 0.05$), hence the null hypothesis is rejected. It signifies that the selected two variables have a substantial association, allowing for the creation of a cross table for the specified variables.

TABLE 9.b: TRAVELLING OBJECTIVE OF THE RESPONDENT BASED ON OCCUPATION

TRAVELLING OBJECTIVE	**OCCUPATION**								
	Daily wage earner	Student	Self Employed	Businessman	Govt. Service	Private Service	Home Maker	Pensioner	**TOTAL**
Reaching to the Working Place	17 (5.7)	0 (0.0)	27 (9.0)	31 (10.3)	38 (12.7)	63 (21.0)	0 (0.0)	0 (0.0)	**176 (58.7)**
Reaching to the personal work place like Bank, Medical and others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.3)	2 (0.7)	18 (6.0)	**21 (7.0)**
Reaching to the Educational Institute	0 (0.0)	69 (23.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	**69 (23.0)**

Reaching to the native place	0 (0.0)	3 (1.0)	1 (0.3)	0 (0.0)	1 (0.3)	1 (0.3)	9 (3.0)	1 (0.3)	**16 (5.3)**
Entertainment purpose	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	11 (3.7)	7 (2.3)	**18 (6.0)**
TOTAL	**17 (5.7)**	**72 (24.0)**	**28 (9.3)**	**31 (10.3)**	**39 (13.0)**	**65 (21.7)**	**22 (7.3)**	**26 (8.7)**	**300 (100.0)**

Source: Computed Primary data, Note: Figures in brackets indicate percentage to total

Table 9.b displays the respondents' travel objectives based on their occupation. Out of 58.7 percent of respondents, 21 percent worked in private service and traveled by bus to their workplace. Out of 21% of the respondents, 6% were pensioners who traveled by bus to their personal workplaces such as banks, medical offices, and others. 23 percent of respondents traveled by bus to their educational institutions. Out of 5.3 percent of respondents, 3 percent took buses to get to their hometown. Out of 6 percent of respondents, 11 percent were homemakers who traveled by bus for recreational purposes.

TABLE 10.a: EXISTANCE OF ASSOCIATION BETWEEN PREFERRED MODE OF TRAVELLING WITH TRAVELLING DURATION (PER DAY)

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	3.507[a]	4	.003
Likelihood Ratio	3.510	4	.001
Linear-by-Linear Association	.047	1	.002

N of Valid Cases	300		

Source: Computed Primary data

Table 10.a investigated the association between preferred mode of travel and travelling duration (per day). To examine the association, the Chi-Square test was used on the contingency table of the preferred mode of travel and journey duration (per day). The calculated Pearson Chi-Square value is less than 0.05 ($P < 0.05$), hence the null hypothesis is rejected. It signifies that the selected two variables have a substantial association, allowing for the creation of a cross table for the specified variables.

TABLE 10.b: PREFERRED MODE OF TRAVELLING OF THE RESPONDENT BASED ON TRVELLING DURATION (PER DAY)

PREFERRED MODE OF TRAVELLING	**TRAVELLING DURATION (PER DAY)**					**TOTAL**
	NIL	**< 10 min**	**> 11 - < 20 min**	**> 21 - < 30 min**	**> 30 min**	
Public Bus	7 (2.3)	5 (1.7)	8 (2.7)	4 (1.3)	28 (9.3)	**52 (17.3)**
Private Bus	39 (13.0)	17 (5.7)	23 (7.7)	35 (11.7)	134 (44.7)	**248 (82.7)**
TOTAL	**46 (15.3)**	**22 (7.3)**	**31 (10.3)**	**39 (13.0)**	**162 (54.0)**	**300 (100.0)**

Source: Computed Primary data, Note: Figures in brackets indicate percentage to total

Table 10.b indicates the respondents' preferred mode of travel depending on trip duration (per day). Out of 300 respondents, 9.3 percent prefer public buses for travel and travel daily for more than 30 minutes; 2.7 percent prefer public buses for travel and travel daily for more than 11 minutes but less than 20 minutes. 2.3 percent of respondents favor public transportation, however they do not go by bus on a

daily basis. 1.7 percent of respondents prefer public buses for travel and travel daily for less than 10 minutes; 1.3 percent prefer public buses for travel and travel daily for more than 21 minutes but less than 30 minutes. 44.7 percent of respondents choose private buses for transportation, and they go by bus daily for more than 30 minutes. Although 13 percent of respondents prefer private buses, they do not travel by bus on a daily basis. 11.7 percent of respondents choose private buses for transportation, and they commute everyday by bus for more than 21 minutes but less than 30 minutes. 7.7 percent of respondents choose private buses for transportation, and they commute everyday by bus for more than 11 minutes but less than 20 minutes. 5.7% of respondents choose private buses for transport, and they go by bus every day for less than 10 minutes.

TABLE 11: DAILY AMOUNT SPENT FOR TRAVELLING BASED ON THEIR AGE

AGE (IN YEARS)	**NO OF RESPONDENTS**	**PERCENTAGE TO TOTAL**	**AVERAGE BUS FARE (IN RUPEES)**
13 – 19	32	10.7	26
20 – 29	120	40.0	21
30 – 39	91	30.3	20
40 – 49	26	8.7	16
60 & above	31	10.3	10
TOTAL	**300**	**100.0**	

Source: Computed Primary data

Table 11 indicates that respondents aged 13 to 19 years, comprising 10.7 percent, spend an average of 26 rupees on travel. Those aged 20 to 29 years, making up 40 percent, spend an average of 21 rupees. Respondents aged 30 to 39 years, accounting for 30.3 percent, have an average travel expenditure of 20 rupees. For the 40 to 49 years age group, which represents 8.7 percent, the average spending is 16

rupees. Lastly, respondents aged 60 and above, constituting 10.3 percent, spend an average of 10 rupees on travel.

7. SUGGESTIONS

- Bus Corporations and the authorities should think about the best interest of the passengers.
- The authority of both Public and Private Bus Service can make some strategy to attract more number of passengers from different segment.
- Bus authorities can think about the Bus fare spending pattern of the passengers so that both the parties can be benefitted.
- Public or Govt. bus Corporation authority can improve the number, frequency of buses and improve connectivity uniformly in Kolkata City.

8. CONCLUSION

'A study on passengers' perception of bus transportation services in Kolkata city' concludes that a majority of both male and female participants rely on buses for their daily commutes in the absence of personal vehicles. The majority of students utilize bus transportation to reach their educational institutions. The majority of respondents commute for over 30 minutes daily using private buses. Individuals in the 20 to 29 age bracket allocated an average of 21 rupees daily for their bus transportation. The findings of the study indicate that both Public and Private Bus Transportation Authorities can develop suitable strategies concerning bus transport services, enabling them to enhance their offerings and effectively cater to diverse demographic segments.

REFERENCES

- Dhingra, S.L., (1986), Urban Transportation and Evaluation in Roads and Road Transport Problems, Tata Mc Graw Hill, New Delhi.
- Umrigar, F.S., Sikdar, P.K., and Khanna, S.K., (1988), Quality of Urban Bus Services– Evaluating Different Ownerships in Transport System Studies, Tata Mc Graw Hill, New Delhi.
- Gupta, S., & Vanitha, A. (2015). Service Quality Gap Analysis in Bus Transportation at Kolkata. International Journal of Social Science & Interdisciplinary Research, 4(8), 1-9.

- Panduranga Murthy, C (1995), "Customer Service in Bus Passenger Transportation", Indian Journal of Transport Management, November, pp 151–169.
- Tor Wallin Andreassen (1995), "(Dis) Satisfaction with Public Services: The Case of Public Transportation", Journal of Services Marketing, 9 (5), pp 30–39.
- Vijayaraghavan, T.A.S., (1997), "Service Quality Perceptions of Transport Services–The Case Study of Road Transport Undertakings", Indian Journal of Transport Management, June, pp.31–36.
- John Disney (1998), "Competing Through Quality in Transport Services", Managing Service Quality, 8 (2), pp.112–118.
- Bindhu, M and Sathis kumar, R (2001), "Ranking of Abstract Attributes of Commuters of Bus Trips in Thiruvananthapuram City", Indian Journal of Transport Management, 25 (5), pp.389–403.
- Ramamoorthy, K., and Ponnuraj, S., (2001), "Passenger Perception on Omnibus Services–An Analysis", Indian Journal of Transport Management, October– November, pp 555 – 574.
- Lagrosen, S and Lagrosen, Y (2003), "Management of Service Quality–Differences in Values, Practices and Outcomes", Managing Service Quality, 13 (5), pp.370–381.
- Sudip K. Roy and R.N. Datta (2005), "Ranking of Public Transport Modes According to the Characteristics of Abstract Nature–Case Study Kolkata", Indian Journal of Transport Management, April – June, p.136.
- Gupta, S., & Vanitha, A. (2016). A Study on the impact of Demographic Variables in the evaluation of Bus Transportation Service Quality with reference to Kolkata City. VSRD International Journal of Technical & Non Technical Research, 7 (Special Issue), 123-126.
- Arawati Agns, Sumita Barker and J. Kandampully (2007), "An Exploratory Study of Service Quality in the Malaysian Public Service Sector", International Journal of Quality and Reliability Management, 24 (2), pp 177–190.