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A Study the Impact of S.T. Workers Strike on Student's Education

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Abstract :

In rural area there are thousands of students mainly depends on the S.T. bus for daily travelling safe and affordable journey to reach their college. The aim of the study is to identify the impact of S.T. workers strike on students and analyse the problems of students. For these purposes we collect the data of 241 students of different colleges in the various areas of Chandagad Tahsil. The collected data were then analysed with the help of various statistical tools and techniques. In our study the obtained results show relevant measure issues. Due to strike of S.T. workers students facing many problems while travelling they missed their lectures, waste of time and money because of private taxis and buses this problem impacts on their educational losses.

Key Words: Paired t –test, Proportion test, Sentiment Analysis, Pearson chi-square test

Introduction:

The transport facilities available in rural area are many but the most used facility is S.T bus "S.T bus is the heart of rural transportation. This transportation is managed by a group of people commonly known as mahamandali.e S.T. Mahamandal. Under which almost all routes of transportation covered. S.T. bus is a public transportation whose main purpose was to create an option for people to travel. S.T. buses connect the most popular places & create cheapest & affordable travelling option for public.

In 1950, a Road Transport Corporation Act was passed by the Union government, which delegated powers to states to form their road transport corporations with the Centre contributing one-third of the capital. Thus, the Bombay State Road Transport Corporation (BSRTC) was formed and later changed its name to MSRTC with the re-organization of the state. From its initial fleet of 30 Bedford buses having wooden bodies and coir seats, the MSRTC fleet has now expanded to 16,000 buses and 96,000 employees and runs inter-city and inter-state buses.

The strike of MSRTC employees, which began October 28, 2021. One of the largest inter-city bus systems in the country have been on strike for 54 days affecting 1000 of students. The Indian express looks at the reason behind the strike & the state constraints in meeting employees. They have been demanding that the transport corporation be merged with the state government so that they are entitled to salaries and benefits as state government employees.

Objectives:

1. To study the impact of S.T. workers strike on students in rural area.
2. To analyze the problems faced by students during strike.
3. To check whether the stance of S.T. workers and S.T. Corporation regarding strike is right or wrong.
4. To study the availability of travelling options during strike.
5. To study the students opinion regarding the replacement of S.T. Corporation and relationship with studying year.
6. To analyse the relationship between Gender and affordable travelling option.

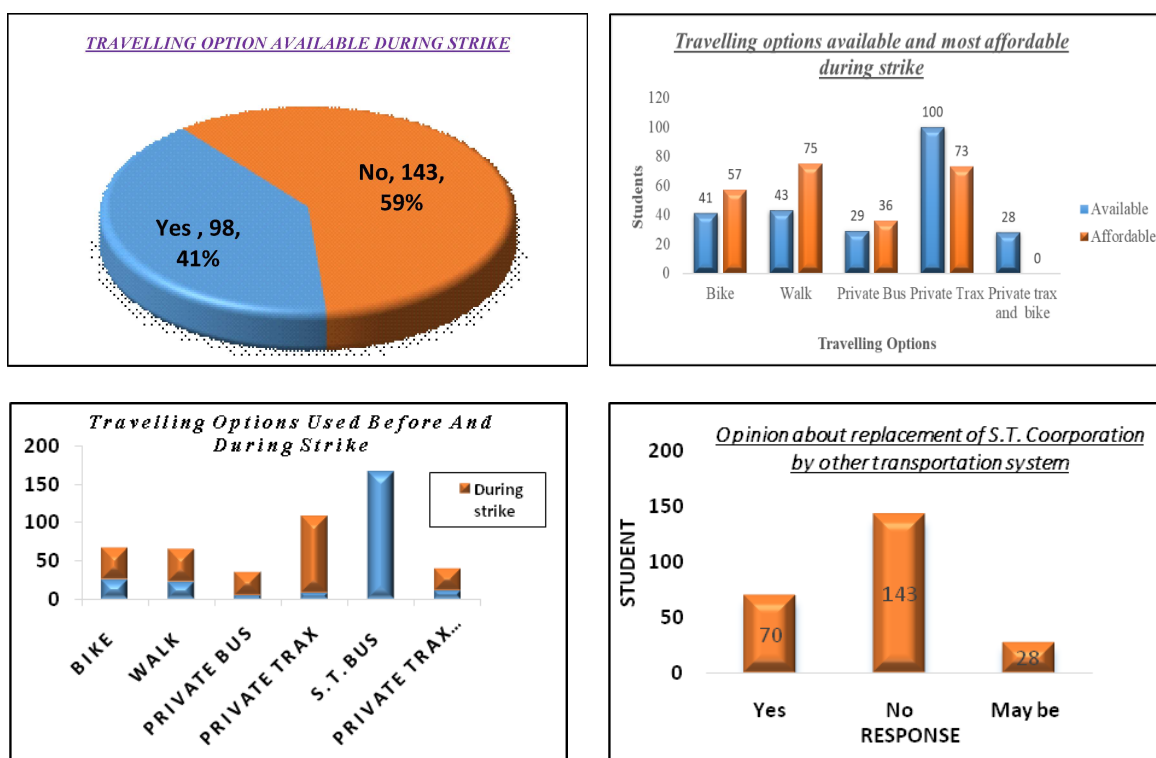
Methodology:-

Data is collected from primary sources. We made a questionnaire to collect all the necessary information from students of different colleges. The Google form is made available to students and appeal them to fill the form of questionnaire. We prepared a questionnaires of 21

questions. We send the link of google form in various whatsapp groups and with the help of these questionnaires, we have taken the sample of size 241 students of different colleges in the various areas of ChandagadTahsil using SRSWOR.

All students were co-operating us. They provide us real and important information about their traveling information, problems faced due to strike and the responses were immediately saved on our google drive. We explored the data to MS-Excel using the google drive tools after collection we sorted data by different criterion and analyze it by using some statistical rules.

Graphical Presentation:



Statistical Analysis:

1) Paired t test for impact on economical factor of students

H₀: The monthly average expenditure for travelling did not affected by the S.T. workers strike.

H₁: The monthly average expenditure for travelling increases due to the S.T. workers strike.

Calculations:-

n = 241, DF= 240, T_{cal} = -11.7345, p-value = 9.86789 e-26, Alpha = 0.05

Alternative hypothesis: One-sided

Conclusion:-

Here, p-value < Alpha, H₀ at 5% level of significance.

The monthly average expenditure for travelling increases due to the S.T. workers strike.

2) Paired t test for impact on Daily schedule of students

H₀: The daily average time required for travelling did not affected by the S.T. workers strike.V/S

H₁: The daily average time required for travelling increased due to the S.T. workers strike.

Calculations:-

n = 241, DF= 240, T_{cal} = -17.18445, p-value = 5.38543 E-44, Alpha = 0.05

Alternative hypothesis: One-sided

Conclusion:-

Here, p-value < Alpha ,reject H₀at 5% level of significance.
i.e. The daily average time required for travelling increased due to the S.T. workers strike.

3)Test for Proportion of support to government and S.T. workers among male and female students

Hypothesis: -

H₀: Proportion of male who support to government and S.T. workers do notdiffer significantly.

H₁: Proportion of male who support to government and S.T. workers differ significantly.

Observation Table:-

Gender \ Support	Government	S.T. Worker
Female	63	85
Male	47	46

Calculated $\chi^2 = 1.1587$, DF= 1, p-value = 0.2817, Alpha = 0.05

Conclusion:-

Here, p-value >alpha ,Hence we failed to reject H₀ at 5% level of significance.
i.e. Proportion of male who support to government and S.T. workers do not differ significantly.

4) Chi-square Test for Independence of year of studying and opinion about replacement of ST corporation

H₀: Opinion about replacement of S.T. corporation by any other transportation system is independent on year of studying. V/S

H₁: Opinion about replacement of S.T. corporation by any other transportation system is dependent on year of studying.

Observation Table: -

Year of studying	Opinion about replacement of ST corporation		
	Yes	No	May be
11th	0	3	0
12th	1	10	3
First Year	24	28	8
Second Year	19	57	12
Third Year	26	45	5

Calculated $\chi^2 = 14.917$, DF = 8, p-value = 0.06079, Alpha = 0.05

Conclusion:-

Here, p-value > Level of significance (Alpha = 0.05), failed to reject H₀at 5% level of significance.

i.e. Opinion about replacement of S.T. corporation by any other transportationsystem is independent on year of studying.

5) Chi-square Test for Independence of Gender and affordable travelling options

H₀: Gender and affordable travelling options during strike are independent. V/S

H₁: Gender and affordable travelling options during strike are dependent.

Observation Table: -

Gender	Affordable Travelling Options			
	Bike	Private Bus	Private Trax	Walk
Female	18	17	52	61
Male	39	19	21	14

Calculated $\chi^2 = 39.997$, DF = 3, p-value = 1.067e-08, Alpha = 0.05

Conclusion:-

Here, $p\text{-value} < \text{Level of significance (Alpha = 0.05)}$, reject H_0 at 5% level of significance. i.e. Gender and affordable travelling options during strike are dependent.

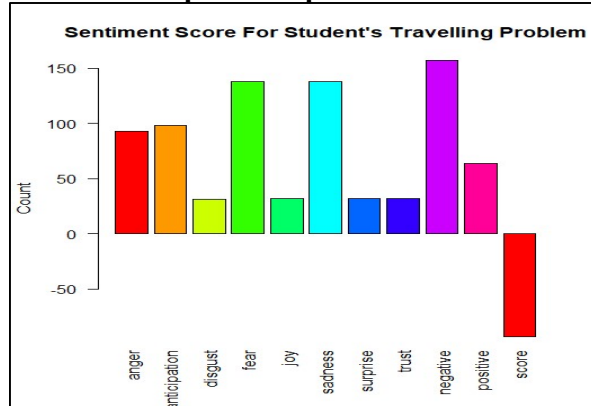
6) Sentiment Analysis for the travelling problems of students during S.T. workers strike

The data set containing travelling problems of 241 students. The data set is divided into the 10 emotions categories: anger, anticipation, disgust, fear, joy, sadness, surprise, trust, negative, and positive.

a) Tabular Representation of Sentiment Score:

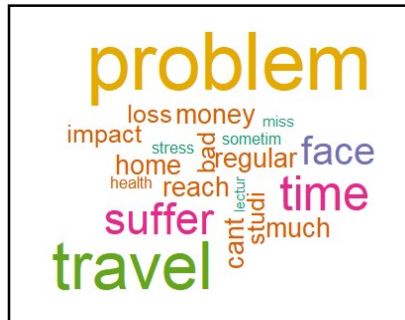
Emotion	Count
anger	93
anticipation	98
disgust	31
fear	138
joy	32
sadness	138
surprise	32
trust	32
negative	157
positive	64
Score	-93

Graphical Representation



In this case percentage of negative words are greater than all other. Then sadness and fear words have more percentage and then anticipation words and anger words comes. Overall students have negative view towards travelling problems facing during S.T. workers strike.

c) Wordcloud:-



Summary :-

From the survey, we studied the problem of students. Most of the students facing problems during travelling. Almost all of them have common problem that to reach college on time. They spend more money as well as time for the same distance. Also they have to compromise with facilities given.

In the above data we can conclude that, due to insufficient travelling options student have to compromise with their education. They miss some important lectures and practical. They got some trouble due to miss understanding in college as well as during travelling.

Due to all of these trouble, students comes under some stress, they do not have sufficient time for study and for family also.

Major Findings:-

- 1) The monthly average expenditure for travelling increases due to S.T. workers strike.
- 2) The Students reach their home on time before strike but due to untimely arrival of vehicles during the strike, more time was wasted for travel.
- 3) Overall students have negative view towards S.T. workers strike. They facing many financial and physical problems. The students had to face academic loss.

- 4) Male as well as female students equally supports to government and S.T. Workers. Which clearly indicate that stance of both of the government and S.T. Workers is right.
- 5) Before strike almost all students are travelled by S.T. bus. Maximum student does not have any easily available travelling options during strike.
- 6) During strike, students have walk and private tax are affordable travelling options.
- 7) Maximum number of students are not in favour of replacement of S.T. Corporation and opinion about replacement is not dependent on year of studying.
- 8) Affordable travelling options during strike is depends on gender of students. However, majority of the male students use bike option, where as majority of female students use walk option.

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