

The Mirror Of Nagpur Metro Rail

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Abstract

India is one of the fastest growing country in the world with the population of around 134 crore approximately which is second highest after China in the world. As one thing leads to another, more the population more the traffic on the road and more the traffic, more the pollution and mishaps will take place. To prevent these events, Indian Govt. and State Govt. together started various transportation projects. "Metro Rail" is one in every of the foremost superb initiative by Govt. towards resolution traffic issues. In India there are currently more than 26 metro rail projects at various level of planning, construction and operation in various cities in India are going on. Recently, in Nagpur, the Metro Rail started. In this research paper, we will focus on various and important points and facts of Nagpur Metro. Majorly it will include effects of Nagpur metro on the transportation and traffic of Nagpur, effect on the environment and scope of Nagpur Metro.

Keywords: Nagpur metro, maha metro, mazi metro, transportation in India.

Introduction

There are presently thirteen operational mass rapid transit (also referred to as 'metro') systems in eighteen cities in the Asian country (India). As of March 2019, the Asian country has 638.91 kilometers (397.00 miles) of operational railroad lines and 496 stations. an extra 500+ klick of lines ar below construction. Railroad rail lines in the Asian country are composed of primary railroad. comes just like the Kolkata railroad and metropolis railroad used the railway for his or her earliest lines however all new comes in Asian country ar on the quality gauge as wheeled vehicle foreign is of the ordinary gauge.

Apart from the Kolkata railroad (which forms its own zone of Indian Railways), these mass rapid transit railroad lines don't seem to be operated by Indian Railways however by separate native authorities. Additionally to their railroad systems, the cities of Madras and Hyderabad have mass transit systems operated by the Indian Railways, referred to as the Madras MRTS and therefore the Hyderabad MMTS, severally. The first public transit system in India is that the urban center railway system, that started operations in 1984. The metropolis railway system has the biggest network within the entire country. the latest railway system opened is Nagpur railway system on eight March 2019.

Nagpur railroad can turn into a mass fast transportation for the Nagpur city. It's measurable to esteem ₹8,260 huge whole numbers (US\$1.2 billion). In Feb 2014, the govt. of Maharashtra gave endorsement for the railroad venture, while the Government of India's Ministry of Urban Development had given "In Principle" endorsement for the Project. On twenty August 2014, Union pantry gave endorsement for the occasion of the undertaking, and Prime Minister Narendra Modi masterminded the dream stone on twenty-one August on his visit to the town. Development on the venture started on thirty-one could 2015, with the tryout beginning on thirty Sept 2017. PM Narendra Modi initiated activities on Nagpur railroad on eight March 2019 by means of video conferencing alongside Maharashtra Chief Minister Devendra Fadnavis and Union cabinet Minister Nitin Gadkari.

Nagpur railroad turns into the thirteenth rail line framework in the Republic of India to be operational. It's moreover being touted in light of the greenest railroad holds in the Republic of India.

Objectives

- A study of Nagpur Metro: Functions and its working
- Effect of Nagpur Metro on transportation and environment

Review of Literature

Aniket Raut et al September 2017. They have studied on “Execution of Metro Rail Project – A Case Study of Nagpur Metro Rail.” They have said that efforts of Nagpur Metro Rail Corporation reflects on the progress of the project. Further upcoming project in the country can be planned and executed on the basis of Nagpur Metro Rail. As this project is ecofriendly. India has a huge need of mass rapid transit system as a growing economy. The development such as metro project would boost the infrastructure development and help the economy to development.

Mr. Ajit Sao Nagpur Metro Rail: A review within the study done by the author, he found that transport system whether or not it's public or non-public that the basic would like of any town that not solely decides the amount of development however opens new avenues for the town. Nagpur is third-largest town & second capital of geographic region state that itself quite spare to acknowledge its importance during a socio-economic and political passageway. To fight with the matter of traffic and to manage the long run road traffic govt. Of Asian nation and geographic region govt. Initiated Nagpur subway rail project that is meant to be started by 2018. From his analysis, he concludes that Nagpur subway rail is planned before the worst state of affairs not like different cities and if it works in planned ways in which then it can be the model for all cities for the event of transport system and management of road traffic.

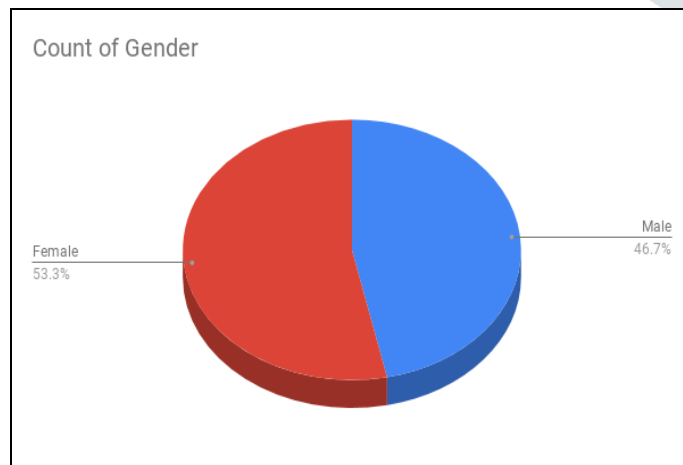
K.M. Neware, Impact of Nagpur Metro on Private Transportation Modes in terms of fuel consumption parameter
In a review done by author, he found that today’s condition as transportation planners look for new policies for better transportation system in cities, metro rail plays a big role in reduction of vehicle congestion, delay, fuel consumption and gases emission. While conducting survey for preferred mode choice after introduction of metro he found that people who belong from profession of business wont shift to metro as their destination is more than one and also more than 1 trip in a day. While making multinomial log it model other socio economic variable such as vehicle ownership, time of trip and especially income of commuter can be used to make prediction more accurate. In our case while conducting survey many people were insecure to tell their income, so we couldn’t use it as one of the variable while making prediction.

Research Methodology:

Well-ordered questionnaire is used to collect primary data. Secondary data needed for the research was collected from journals, books, websites and other references etc., A total sample of 109 respondents consists of each customers of Nagpur Metro. These respondents were conveniently selected from Nagpur District of Maharashtra. Convenience sampling is type of non-probability sampling is selected and is used to collecting the primary data. . For the purpose of analysis, the data further processed by using the statistical tools and is represented by Pie chart.

Data analysis and Interpretation:-

Chart no. 1



It was observed from the chart no.1 that 53.3% of the respondents were female and 46.7 % were male.

Chart no. 2

It was observed from the chart no.2 that 89.5% of the respondents were from Nagpur City where as only 10.5 % were outsider.

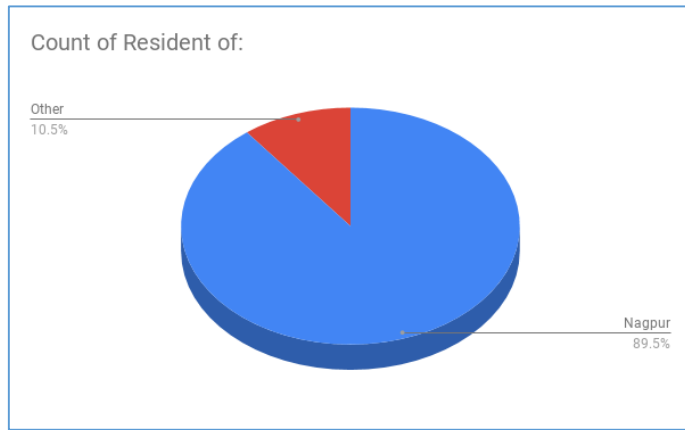


Chart no. 3

It was observed from the chart no.3 that out of total respondents 55.2% were students, 28.6% were employees and 9.5% from business background.

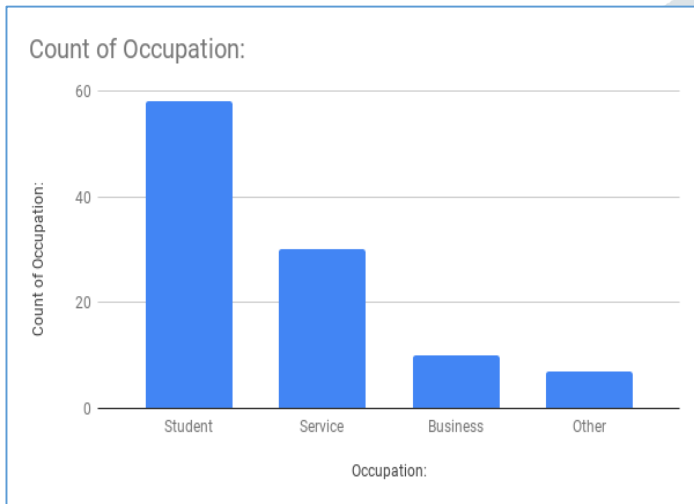


Chart no. 4

It was observed from the chart no.4 that the 32% of the respondents had income in the range of 10-50k, 15.5% had income up to 10k and 7.8% had more than 50k.

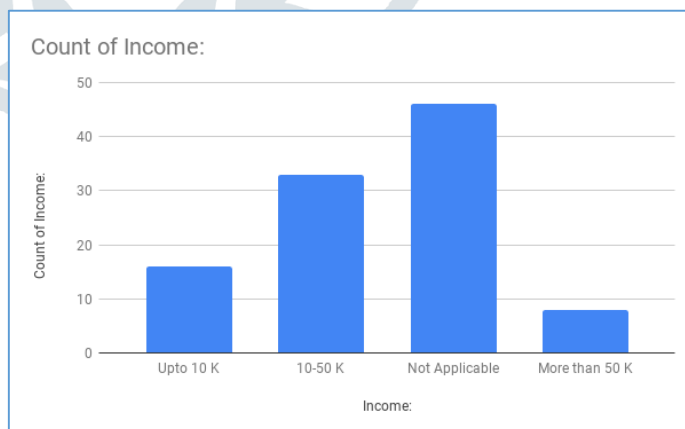
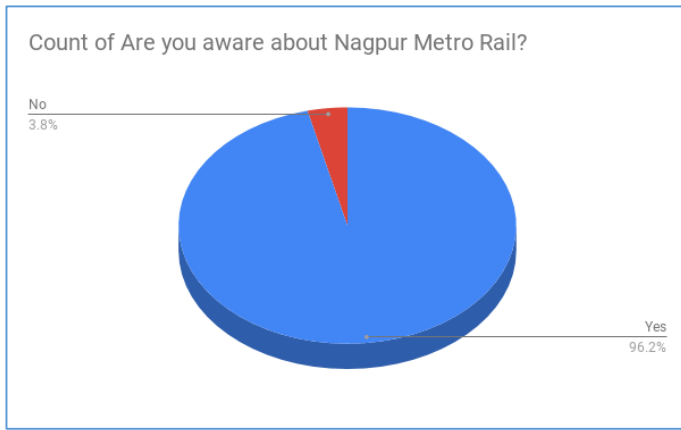


Chart no. 5



It was observed from the chart no.5 that 96.2% of the respondents are aware about Nagpur Metro project and only 3.8% were not aware.

Chart no. 6

It was observed from the chart no.6 that 75.2% of the respondents had experienced the Nagpur Metro Rail ride and 24.8% had not experienced till now but they would like to experience it.

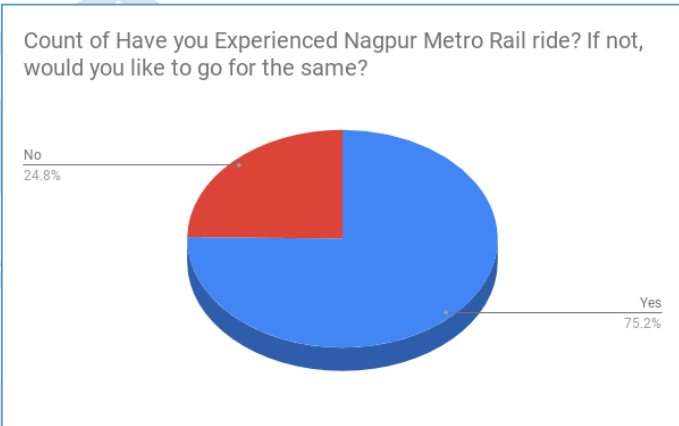
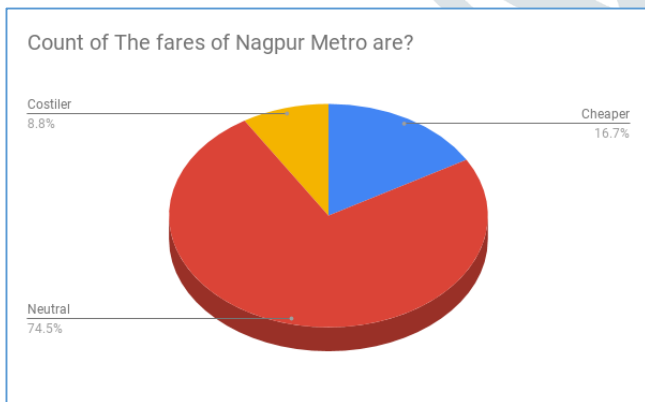


Chart no. 7



It was observed from the chart no.7 that 74.5% of the respondents feels that the fare of Nagpur Metro is moderate, 16.7% feels the fare are cheap whereas only 8.8% of the respondents felt it costlier.

Chart no. 8

It was observed from the chart no.8 that 90.4% of the respondents feels Nagpur Metro Project will be beneficial for the people where as 9.6% does not feel it beneficial.

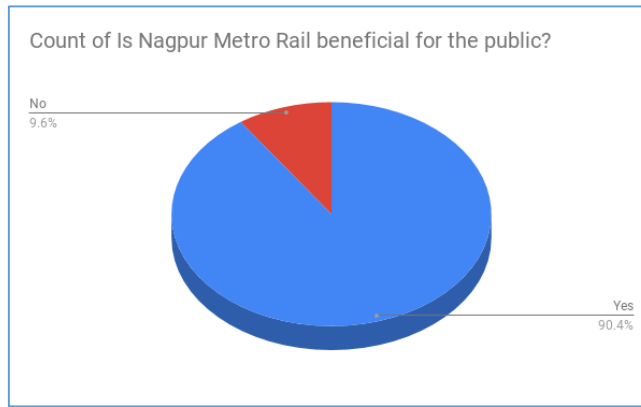
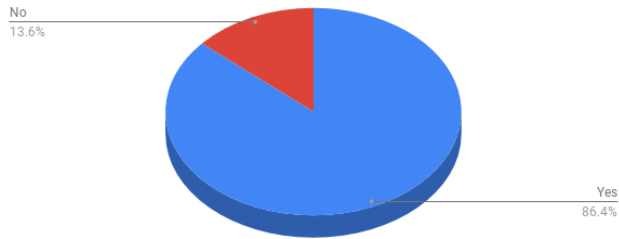


Chart no. 9

Count of Do you think Nagpur Metro Rail can solve the traffic issue of the Nagpur city?



It was observed from the chart no.9 that 86.4% of the respondents feels Nagpur Metro will solve the traffic problems in the city whereas 13.6% people does not feel so.

Chart no. 10

It was observed from the chart no.10 that after the introduction of Nagpur Metro, 31.7% respondents feels traffic on the roads of Nagpur has decreased and 48.5% does not feel any change and 19.5% respondents feel the traffic has increased.

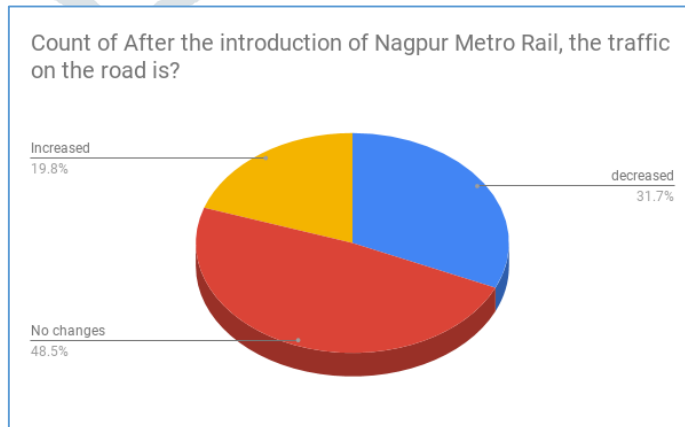
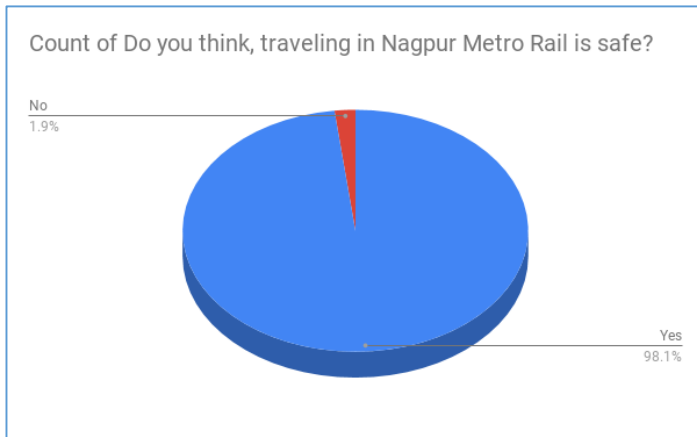


Chart no. 11



It was observed from the chart no.11 that 98.1% respondents feels travelling in Nagpur Metro will be safe whereas 1.9% does not feel Nagpur metro as safe.

Chart no. 12

It was observed from the chart no.12 that 89.5% respondents are aware about the fact that Nagpur Metro is Ecofriendly, whereas 10.5% were not aware about this fact.

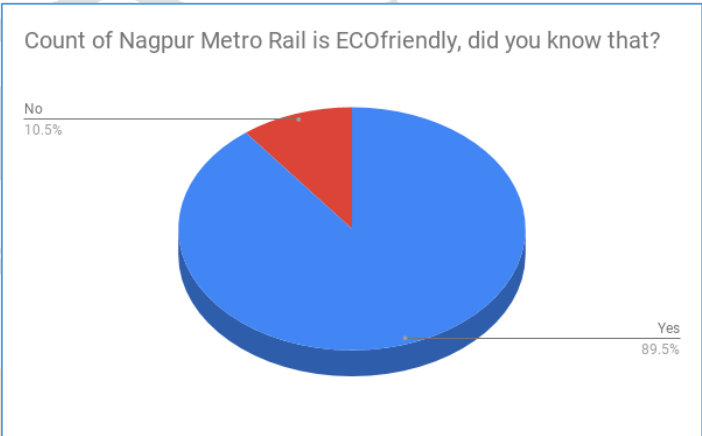
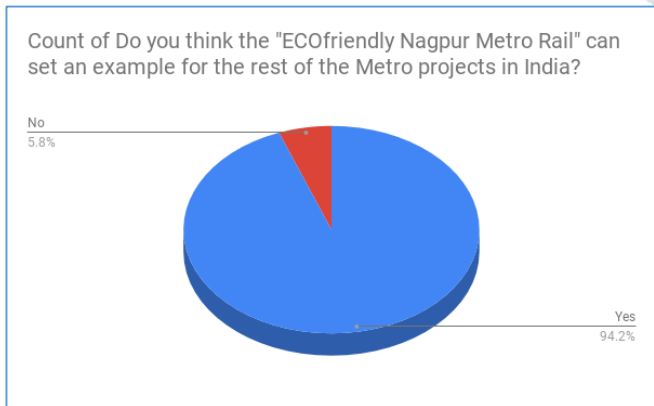


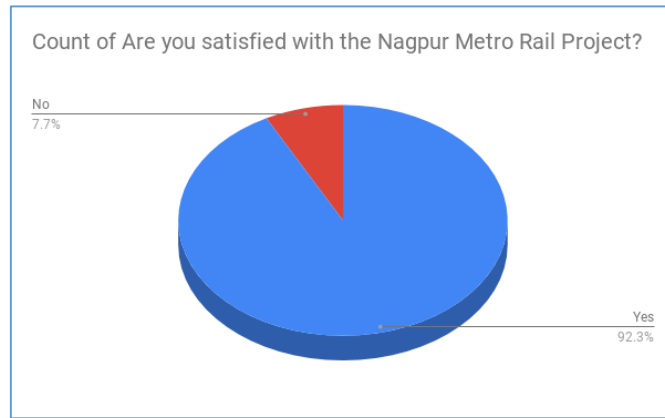
Chart no. 13



It was observed from the chart no.13 that 94.2% respondents feels Ecofriendly Nagpur Metro is going to set an example for rest of the world, whereas 5.8% does not feel so.

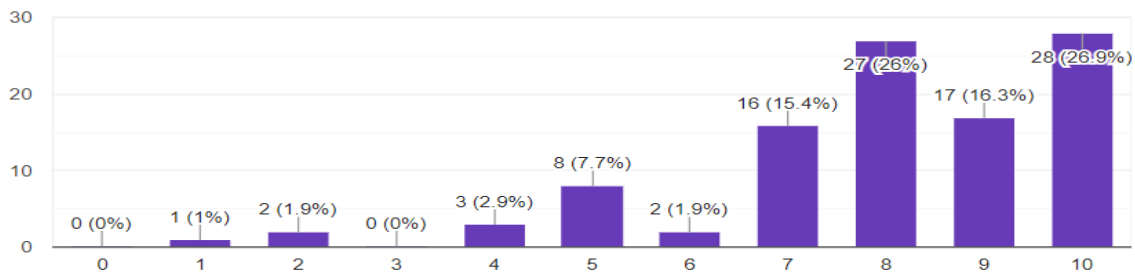
Chart no. 14

It was observed from the chart no.14 that, 92.3% respondents were satisfied with the Nagpur 2.7% of respondents were not satisfied.

**Chart no. 15**

How much you like Nagpur Metro Rail? Rate it on the following scale.

104 responses



It was observed from the chart no.15 that more than 50% respondents liked Nagpur Metro Rail Project.

Major Findings:-

- It was observed from the chart no.1 that 53.3% of the respondents were female and 46.7 % were male.
- It was observed from the chart no.2 that 89.5% of the respondents were from Nagpur City where as only 10.5 % were outsider.
- It was observed from the chart no.3 that out of total respondents 55.2% were students, 28.6% were employees and 9.5% from business background.
- It was observed from the chart no.4 that the 32% of the respondents had income in the range of 10-50k, 15.5% had income up to 10k and 7.8% had more than 50k.
- It was observed from the chart no.5 that 96.2% of the respondents are aware about Nagpur Metro project and only 3.8% were not aware.
- It was observed from the chart no.6 that 75.2% of the respondents had experienced the Nagpur Metro Rail ride and 24.8% had not experienced till now but they would like to experience it.
- It was observed from the chart no.7 that 74.5% of the respondents feels that the fare of Nagpur Metro is moderate, 16.7% feels the fare are cheap whereas only 8.8% of the respondents felt it costlier.

- It was observed from the chart no.8 that 90.4% of the respondents feels Nagpur Metro Project will be beneficial for the people where as 9.6% does not feel it beneficial.
- It was observed from the chart no.9 that 86.4% of the respondents feels Nagpur Metro will solve the traffic problems in the city whereas 13.6% people does not feel so.
- It was observed from the chart no.10 that after the introduction of Nagpur Metro, 31.7% respondents feels traffic on the roads of Nagpur has decreased and 48.5% does not feel any change and 19.5% respondents feel the traffic has increased.
- It was observed from the chart no.11 that 98.1% respondent's feels travelling in Nagpur Metro will be safe whereas 1.9% does not feel Nagpur metro as safe.
- It was observed from the chart no.12 that 89.5% respondents are aware about the fact that Nagpur Metro is Ecofriendly, whereas 10.5% were not aware about this fact.
- It was observed from the chart no.13 that 94.2% respondents feels Ecofriendly Nagpur Metro is going to set an example for rest of the world, whereas 5.8% does not feel so.
- It was observed from the chart no.14 that, 92.3% respondents were satisfied with the Nagpur 2.7% of respondents were not satisfied.
- It was observed from the chart no.15 that more than 50% respondents liked Nagpur Metro Rail Project.

Study Limitation:

In our survey we have used online method to collect data, this is accurate but time consuming process. In our survey we have used a limited sample size and collect the data in Nagpur only, so it is limited to Nagpur city only. In our study we have used limited data to observe the reaction of Nagpur citizens about Nagpur Metro.(120 sample size)

Conclusion:

The study consisted with the aspects in which people of Nagpur city are satisfied with the introduction of Metro in the city. Although most of the people are satisfied with metro project, some still thinks some improvements can be made to metro project in terms of fare and convenience .Although metro project inn Nagpur can be beneficial in future, many problems like traffic, increase in dust precipitation in the air are faced by the people of Nagpur. . As per our survey it was found that most of the respondents from Nagpur thinks Nagpur metro Project is safe and will be very beneficial for the localised and for the environment as the project is environment friendly.

Scope for further research:

The people of Nagpur are more attracted towards the Nagpur Metro. Because of Nagpur metro, there will be decrease in traffic problems in Nagpur, also there will be more employment opportunities will be created. This research can also be conducted by selecting the large sample size covering large area with more population and it also include the process of transportation. It has a fantastic initiative by the Government and Mr. Nitin Gadkari towards Nagpur people to solve traffic problems.

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