PROJECT REPORT

A study on "Financial analysis of Nagpur Metro"

Submitted to

G.S. COLLEGE OF COMMERCE & ECONOMICS (Autonomous) NAGPUR

In partial fulfilment for the award of the degree of

Bachelor of Business Administration

Submitted by-

Apeksha Shyam Kamble

Under the Guidance of

Prof. Kamlesh Thote



G.S. COLLEGE OF COMMERCE AND ECONOMICS, NAGPUR

Academic year 2021-22



G.S. COLLEGE OF COMMERCE AND ECONOMICS, NAGPUR

Academic year 2021-22

CERTIFICATE

This is certifying that "Apeksha Shyam Kamble" has submitted the project report titled "study on Financial analysis of Nagpur Metro", towards partial fulfilment of BACHELOR OF BUSINESS ADMINISTRATION degree examination. This has not been submitted for any other examination and does not form part of any other course undergone by the candidate.

It is further certified that she has ingeniously completed her project as prescribed by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Prof.Kamlesh Thote	Dr.Afsar Sheikh	
(Project Guide)	Coordinator)	
Place:		
Date:		



G.S. COLLEGE OF COMMERCE AND ECONOMICS, NAGPUR

Academic year 2021-22

DECLARATION

I here-by declare that the project with title "Study on Financial analysis of Nagpur Metro" has been completed by me in partial fulfilment of BACHELOR OF BUSINESS ADMINISTRATION degree examination as prescribed by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and this has not been submitted for any other examination and does not form the part of any other course undertaken by me.

Apeksha S. Kamble

Place:

Date:



G.S. COLLEGE OF COMMERCE AND ECONOMICS, NAGPUR

Academic year 2021-22

ACKNOWLEDGEMENT

With immense pride and sense of gratitude, I take this golden opportunity to express my sincere regards to **Dr. N.Y. Khandait,** Principal, **G.S. COLLEGE OF COMMERCE & ECONOMICS, NAGPUR.**

I am extremely thankful to my Project Guide Professor. Kamlesh Thote for his/her guideline throughout the project. I tender my sincere regards to Co-ordinator, Dr.Afsar Sheikh for giving me outstanding guidance, enthusiastic suggestions and invaluable encouragement which helped me in the completion of the project.

I will fail in my duty if I do not thank the non-teaching staff of the college for their cooperation.

I would like to thank all those who helped me in making this project complete and successful.

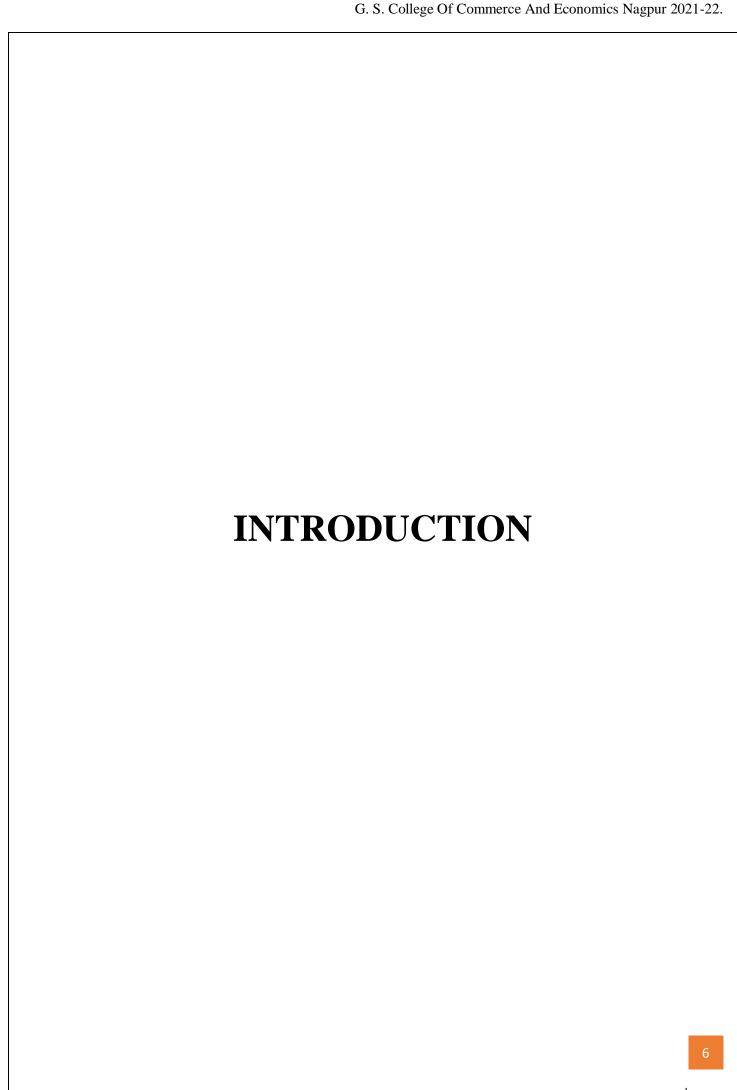
Apeksha S. Kamble

Place:

Date:

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FINANCIAL STATEMENT ANALYSIS

Financial Statement Analysis is a method of reviewing and analysing a company's accounting reports (financial statements) in order to gauge its past, present or projected future performance. This process of reviewing the financial statements allows for better economic decision making.

Globally, publicly listed companies are required by law to file their financial statements with the relevant authorities. For example, publicly listed firms in America are required to submit their financial statements to the Securities and Exchange Commission (SEC). Firms are also obligated to provide their financial statements in the annual report that they share with their stakeholders. As financial statements are prepared in order to meet requirements, the second step in the process is to analyse them effectively so that future profitability and cash flows can be forecasted.

The main purpose of financial statement analysis is to utilize information about the past performance of the company in order to predict how it will fare in the future. Another important purpose of the analysis of financial statements is to identify potential problem areas and troubleshoot those.

OBJECTIVES OF FINANCIAL STATEMENTS

- To communicate to their interested users, quantitative and objective information, this information is useful in making economic decisions.
- To meet the specialized needs of conscious creditors and investors.
- To provide reliable information about the earnings of business enterprise and its ability to operate at a profit in future.
- To provide financial base for tax assessments.
- To provide valuable information for predicting the future earning power of the enterprise.

ELEMENTS OF FINANCIAL STATEMENTS

The elements of financial statements are the general groupings of line items contained within the statements. These elements are as follows:

1. ASSETS.

These are items of economic benefit that are expected to yield benefits in future periods. Examples are accounts receivable, inventory, and fixed assets

Fixed Assets

Fixed assets are acquired by the firm its productive operations and not for resale. Fixed Assets include land, building, fixtures, and equipment. Sometimes called long-term assets, long-lived assets, or plant and equipment.

• Current Assets

Current assets are defined "Cash and other assets that are expected to be converted into cash or consumed in the production of goods or rendering of services in the normal course of business".

2. LIABILITIES

These are legally binding obligations payable to another entity or individual. Examples are accounts payable, taxes payable, and wages payable.

- Creditors
- Accounts Payable
- Loan Short-Term
- Loan Long-Term

3. EQUITY

This is the amount invested in a business by its owners, plus any remaining retained earnings.

- Capital
- Retained Earnings
- Reserves

4. REVENUE

This is an increase in assets or decrease in liabilities caused by the provision of services or products to customers. It is a quantification of the gross activity generated by a business. Examples are product sales and service sales.

- Sales
- Fees Earned
- Interest Received

5. EXPENSE

This is the reduction in value of an asset as it is used to generate revenue. Examples are interest expense, compensation expense, and utilities expense.

- Salaries
- Electricity
- Supplies

ADVANTAGES OF ANALYSIS OF FINANCIAL STATEMENTS

- **(A) Knowing The Exact Position:** Everybody who is interested in knowing the exact financial position of the concern is benefited by the 'analysis' of financial statement. Interested party gets the valuable information about the exact facts and figures of the concern by analysing the financial statements by various methods.
- **(B) Decision-Making:** Every interested party is in a position to assess the exact financial position of the concern when it analyses financial statements of that concern by reliable methods. Thus, such an analysis ultimately helps that party in taking various types of decisions such as investment, sale, purchase etc.
- **(C) Forecasting:** After analysing the financial statements, one is in a position to forecast whether it would be profitable or not to invest in or to deal with the business concern.

DISADVANTAGES OF ANALYSIS OF FINANCIAL STATEMENTS

- (A) Costs Current Ignore Completely: Financial analysis is always based on financial statements which are generally prepared on the basis of historical costs. Thus, it may reflect distorted results. The financial analysis based on such financial statements would not portray the effects of price level changes over a period of time.
- **(B) Financial Statements Are Essentially Interim Reports:** The amount of profit or loss as shown by the Profit and Loss account or the financial position as shown by the Balance Sheet of any unit is always based on certain accounting concepts and conventions. Therefore, these figures may not reflect the exact position. Further, the existence of contingent liabilities, deferred revenue expenditure 30 etc. may make them inaccurate.
- **(C) Financial Analysis Is Only A Means Not An End:** The financial analysis should not be considered as the ultimate objective test but it may be carried further based on the outcome and revelations about the causes of variations. It is the part of the larger information processing system.

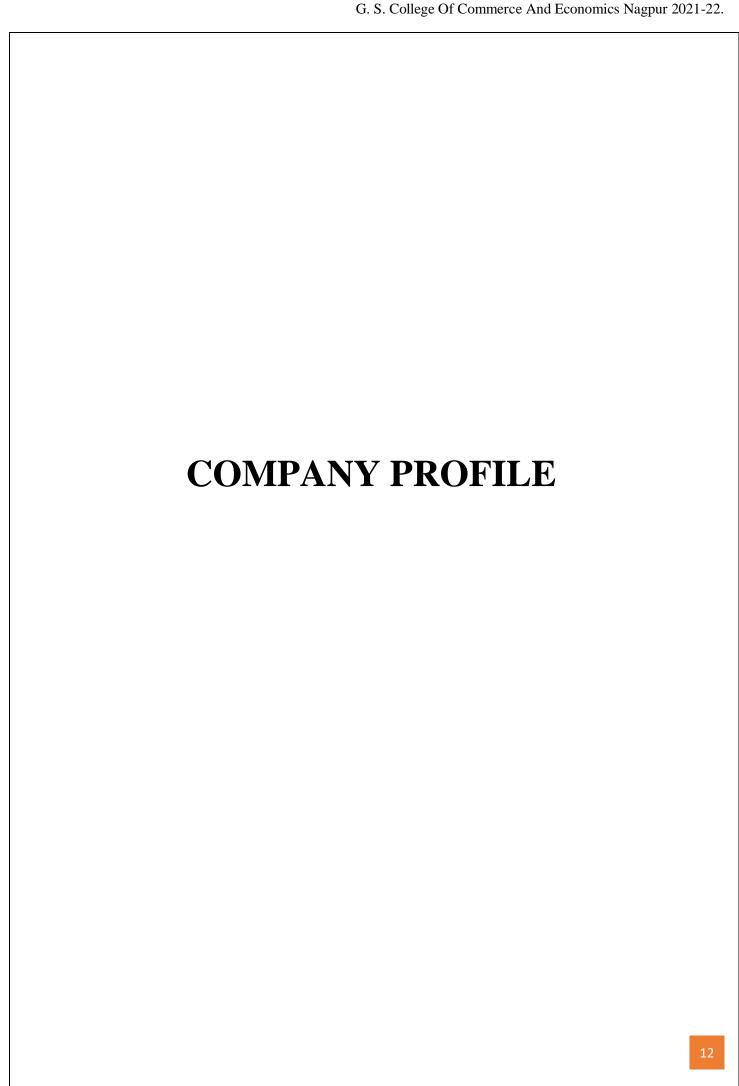
BASIC FINANCIAL STATEMENTS

The accounting process (also called the accounting cycle) consists of the following groups of functions: -

- (1) Accounting observes many events and identify and measure in financial terms those events considered evidence of economic activity.
- (2) The evidence events are recorded, classified into meaningful groups and summarized for conciseness.
- (3) Accountants report a business activity by preparing financial statements and special reports. The purpose of financial accounting statements is mainly to show the financial position of a business at a particular point in time and to show how that business has performed over a specific period.

The three basic financial accounting statements that help achieve this function are:

- (1) The trading account and the profit and loss account
- (2) A balance sheets
- (3) A cash flow statement



NAGPUR METRO



ABSTRACT

Nagpur, the second capital of the state of Maharashtra is also the third largest city in the state and 13th largest urban conglomeration in India with area of 217 Sq. Km while the Nagpur Metro Region has a population of around 35 lakhs and an area of around 3576 Sq. Km. The population of Nagpur Metro and vehicles on road are ever increasing leading to problems like traffic, pollution and high fuel consumption

Considering all this -THE NAGPUR METRO comes as a huge relief for the people of Nagpur

There are no doubts about the social benefits of the Nagpur Metro. It will help in reducing traffic and pollution in the city and more important save a lot of time for the daily commuters. As a part of this project, the Nagpur Metro has been analysed from the economic point of view. Considerable effort has been put into understanding the economic viability of the Nagpur Metro. A lot of analysis is done taking into consideration past and present data.

WHY NAGPUR METRO

The following are the parameter which shows the need of Nagpur metro in Nagpur City

PARAMETERS	EXISTING	WITH METRO
Traffic Congestion	Bumper to bumper traffic visible on several roads in peak hours	Commuters will get diverted to Metro reducing the congestion on road
Pollution	Air Quality of the city is going down Source: Air quality - Ambient Air Quality monitored in Nagpur	Will improve as the no of vehicles on road will go down
Road Accidents	Notably high due to higher number of vehicles on road	Will drastically reduce as the congestion on road will reduce
Convenience	Not very convenient due to traffic jams, bad roads, traffic signals etc.	Very convenient as the mode is highly comfortable, reliable and timely
Weather Extremities	Do affect the driver of individual vehicles causing discomforts	Provides a comfortable and distraction-free movement
Travel Time	Is excessive due to traffic congestions and traffic signals	Will reduce the travel time by 50%
Cost	Is high due to high fuel consumption and high fuel cost and more running time due to traffic congestion	Will be much less as compared to cost of running individual vehicles
Energy Savings	Uses fossil fuels and has high energy consumption	Uses around only 1/5 th of energy as compared to road transport

Thus, there is a need for a safe, reliable, efficient, affordable, commuter friendly and environmentally, sustainable rapid public transport system for the Nagpur Metro region.

MAHA METRO

Nagpur Metro is a rapid transit system for the city of Nagpur, Maharashtra, India. It is estimated to cost ₹8,260 crores (equivalent to ₹110 billion or US\$1.5 billion in 2020). In February 2014, the Government of Maharashtra gave approval for the Metro Project, while the Government of India's Ministry of Urban Development had given "In Principle" approval for the Project. On 20 August 2014, Union Cabinet gave approval for the development of project, and Prime Minister Narendra Modi laid foundation stone on 21 August on his visit to the city. Construction on the project began on 31 May 2015, with trial run beginning on 30 September 2017.

Prime minister Narendra Modi inaugurated operations on Nagpur Metro on 8 March 2019 via video conferencing along with Chief Minister of Maharashtra, Defender Vadnais and Union Cabinet Minister Nitin Gadara.

Nagpur Metro becomes 13th Metro system in India to be operational. It is also being touted as the greenest metro rail in India.

In 21 August 2021, Maharashtra Chief Minister Uddhav Thackeray inaugurated a 1.6 km expansion between Sitabuldi and Kasturchand Park. This featured the Zero Mile Freedom Park station which has a 60,000-sq ft park and a 20-storey building, designed by a French architect.

SYSTEM SPECIFICATIONS

• Top Speed: 90 kmph

Average Speed: 33 kmph

Track Gauge: Standard Gauge – 1435 mm
 Electrification: 25 kV, 50 Hz AC OHE

• Signalling: Communication-based Train Control (CBTC)

OVERVIEW OF NAGPUR METRO

Nagpur Metro Rail		
Locale	Nagpur, Maharashtra, India	
Transit Type	Rapid Transit	
Number of Lines	2	
Number of Stations	24	
Daily Ridership	50000	
Chief Executive	Brijesh Dixit	
Headquarters	Opposite Ambedkar College, Deeksha Bhoomi,Nagpur	
	Operation	
Began Operation	8 March 2019	
Operators	Maharashtra Metro Rail Corporation Limited	
Train Length	3 Coaches	
	Technical	
System Length	26.6 km	
Track Gauge	1435 mm (standard gauge)	
Electrification	25Kv Ac Overhead catenary	
Average Speed	33 km/h	
Top Speed	90 km/h	

Maharashtra Metro Rail Corporation Limited (MAHA-METRO), is a 50:50 jointly owned company of Government of India and Government of Maharashtra.

All metro rail projects will be covered under the legal framework of the Metro RAILWAYS (CONSTRUCTION OF WORKS) ACT, 1978; THE METRO RAILWAYS (OPERATION AND Maintenance) Act, 2002; and the Railways Act, 1989, as amended from time to time.

The existing Nagpur Metro Rail Corporation Limited (NMRCL) which is a joint Special Purpose Vehicle (SPV) of Government of India (GoI) and Government of Maharashtra (GoM), has been reconstituted into Maharashtra Metro Rail Corporation Limited (MAHAMETRO) for implementation of all metro projects in the State of Maharashtra outside Mumbai Metropolitan Region. The project will benefit from experience and learnings from other Metro Rail projects in Delhi, Bengaluru, Chennai, Kochi, Nagpur etc.

OVERALL OBJECTIVES:

The overall objectives of the Nagpur Metro Rail project is to improve urban mobility in Nagpur while promoting a sustainable development of the agglomeration.

SPECIFIC OBJECTIVES:

The Nagpur Metro Rail project pursues several specific objectives:

- Increasing mobility and access to transport for people, guaranteeing a regular quality of service;
- Serving key economic and administrative areas of the city;
- Stopping the progression of the number of private vehicles, including motorbikes, offering an alternative public transport;
- Reducing local emission and carbon emissions from road traffic;
- Promoting integrated urban development, strengthening inter-modality and densification around public transport routes.

PROJECT CONTENT:

The project consists in two metro lines, for a total of 38.1 km including 35 stations:

A North-South line, automotive Khapri Square Station: 19.6 km with 16 Stations,

An East-West line of Prajapati Nagar Lokmanya Nagar: 18.5 km with 19 Stations

The metro is fully aerial, except 4.6 km at-grade, including the two stations of New Airport and Khapri. Two depots are planned, one in Lokmanya Nagar, at the West end of the East-West line, the other one in Khapri, at the South end of the North-South line. The two lines intersect with each other and with railways in Sitaburdi, which will become a major multimodal station.

The technical solution retained is light rail trains of three cars with a capacity of 764 passengers. Specifications are similar to those of other Indian metro projects: standard gauge track, power supply by 750V third rail, cab signaling, electronic ticketing, etc. The stations are located approximately every 1 km. 352 000 passengers are expected to be carried daily, once the two lines are fully commissioned in December 2019. This figure corresponds to the lower range of capabilities of a metro; however, additional measures are proposed to ensure

- The maximization of the number of passengers by an integration of transport with urban development, and by the implementation of feeder transport services to the metro and
- o the coverage of the metro operating expenses by introducing dedicated taxes.

PARAMETERS	VALUES
Estimated Completion Cost with	Rs .8680 Crore
Taxes	
Fare Collection	Automatic fare collection system
	with combination of smart cards
	and computerized paper tickets
Capacity Of Trains	764
Service Hours	
	19 hours /day (from 5.00 am to
	00.00 midnight)
Estimated Direct Employment	~1.700 persons
generation	
Feeder Bus Routes And Coverage	19 routes & 160 Km

BOARD OF DIRECTORS

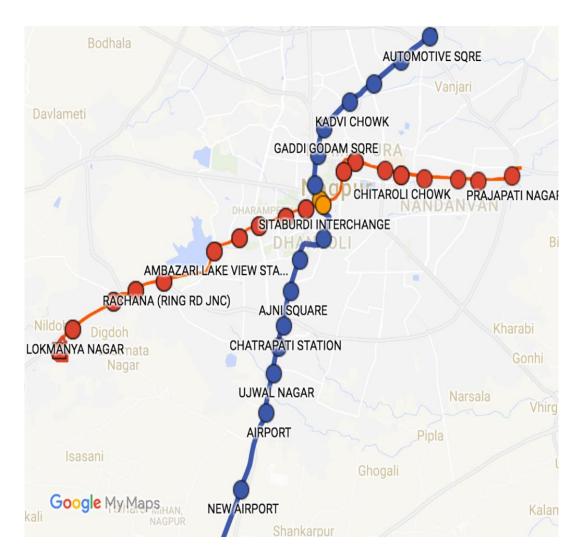
SR NO.	NAME	DESIGNATION
1	SHRI. MANOJ JOSHI	DIRECTOR-MMRCL DEVELOPMENT DEPARTMENT, GOVT. OF MAHARASHTRA,
2	BRIJESH DIXIT	MANAGING DIRECTOR - MMRCL
3	SHYAM S. DUBEY	DIRECTOR MMRCL JOINT SECRETARY & FINANCIAL ADVISOR, NIRMAN BHAVAN,
4	JAIDEEP	DIRECTOR- MMRCL OSD (UT), MINISTRY OF HOUSING & URBAN AFFAIRS, NIRMAN BHAVAN,
5	SMT. SUJATHA JAYARAJ	DIRECTOR- & MMRCL DIRECTOR (FINANCE)CMRCL
6	SHRI. N. M. DHOKE	DIRECTOR MMRCL DIRECTOR (RSE & OM) BMRCL
7	SHRI. MANOJ SAUNIK	DIRECTOR MMRCL ADDITIONAL CHIEF SECRETARY, FINANCE, GOM
8	SHRI. BHUSHAN GAGRANI	DIRECTOR MMRCL PRINCIPAL SECRETARY (UD-1), URBAN DEVELOPMENT DEPARTMENT, GOM
9	SHRI. VIKRAM KUMAR	DIRECTOR MMRCL MUNICIPAL COMMISSIONER
10	SHRI. RADHAKRISHNAN B	DIRECTOR (PROJECTS) MMRCL
11	SHRI. MAHESH KUMAR	DIRECTOR (PROJECTS) MMRCL
12	SHRI, SUNIL MATHUR	DIRECTOR (ROLLING STOCKS, SYSTEM & OPERATIONS) MMRCL
13	SHRI. ATUL GADGIL	DIRECTOR (WORKS) MMRCL
14	SHRI. VINOD K. AGRAWAL	DIRECTOR (SYSTEMS & OPERATIONS) MMRCL

ALIGNMENT

Nagpur Metro Rail Project will consist of 38.215 Km metro corridor, 38 stations and 2 Depots. The entire stretch will be divided into 2 alignments or corridors as follows:

Alignment	Corridor	Rail Length	No of Stations
1	North-South Corridor	19.658 Km	18
2	East-West Corridor	18.557 Km	20

NAGPUR METRO NETWORK MAP



LINE 1: ORANGE LINE (NORTH-SOUTH CORRIDOR)

(Rail Length:22.293 km; No of Stations:20

This corridor originates from Automotive Square on Kamptee Road; moves along Kamptee Road and reaches the intersection point of Amravati Road and Wardha Road, then after crossing fly over moves towards Munje Square, moves towards Dhantoli and along nala moves towards Empire/Dr Munje Marg, leads towards Congress Nagar T-Point, then on Rahate Colony Road and then falls on Wardha Road, leads towards NEERI, then moves along Wardha Road and then west of Railway Track in MIHAN area. And passes through 14m wide stretch of land between the railway boundary line and the road near proposed Container Depot.

Entire length (22.293 km.) of this corridor is proposed as elevated except in 4.6 km at grade after Airport Station and in MIHAN area near Khapri Railway Station. There are 20 stations on this corridor of which 15 stations are elevated and 5 stations are at Grade. Sitaburdi Station is an inter-change station. Average inter-station distance is 1.20 km approximately varying from 0.54 km to 2.4 km depending upon the site, operational and traffic requirements.

This line has started operations partially between <u>Sitabuldi</u> to <u>Khapri</u> since 8 March 2019.

LINE 2: AQUA LINE (EAST-WEST CORRIDOR)

(Rail Length:19.407 km; No of Stations:20)

This corridor originates from Prajapati Nagar and runs westwards, through Vaishnodevi Square, Ambedkar Square, Telephone Exchange, Chittar Oli Square, Agarsen Square, Doser Vaisya Square, Nagpur Railway Station, Sitaburdi, Jhansi Rani Square, Institute of Engineers, Shankar Nagar Square, Lad Square, Dharmpeth College, Subhash Nagar, Rachna (Ring Road Junction), Vasudev Nagar, Bansi Nagar to Lokmanya Nagar. The entire corridor is elevated.

The total length of the corridor is 19.407 kilometre. There are 20 stations on this corridor. All stations are elevated stations and Sitaburdi station is an Interchange Station. Average inter-station distance is 1.00 km approximately varying from 0.65 km to 1.29 km depending upon the site, operational and traffic requirements.

IMPACT OF NAGPUR METRO

- **A. ECONOMIC IMPACT:** The metro will connect the residential areas, employment centers and industrial areas. It will serve the most dynamic central areas, many secondary and higher education centers, the stadium of the city, the railway station, the airport and the Special Economic Zone of MIHAN, contributing to the economic attractiveness of the agglomeration. The implementation of the first wo metro lines will have a ripple effect on the urban economy.
- **B. ENVIRONMENTAL IMPACT:** The carbon footprint of the project reports a reduction of 50 000 teqCO₂ / year. This figure is in the lower range of the carbon footprints of other public transport projects, due to the relative size of the city (compared to Indian megacities like Bangalore, for example), low culture of using public transport (9% modal shares in 2015) and the strong competition of motorcycles (65% of motorized trips) which provide an economical door-to-door mobility solution. The implementation of a low-carbon comprehensive mobility plan, planned as part of the Mobilize Your City initiative, is expected to increase the positive effects of the project on climate.
- C. SOCIAL IMPACT: The project aims to facilitate commuting and allows equitable access to essential goods and services (jobs, schools and universities, administrative, etc.). It will significantly reduce travel time of residents and provide better travel conditions. The living conditions along the lines should be improved with a reduction of pollution (air and noise) and the development of servicesand shops nearby stations. The metro route covers the major residential corridors of the city, including many disadvantaged neighborhoods. A significant share of public housing programs (in-situ rehabilitation programs) for slum eradication undertaken by the municipality is located near the future metro lines. The metro will be fully accessible to people with reduced mobility, based on the State's procurement guidelines. The fare of the metro will be progressive dependingon the distance traveled, starting from Rs 8. This rate is similar to that of a bus ride and an auto- rickshaw ride, often shared between several people (Rs 60 / average trip).
- **D. INSTITUTIONAL IMPACT:** The strong political support for the project at all levels (municipal, state, national), the recruitment of a private General Consultant with international experience, and the direct involvement of municipal structures in the governance and financing of the project, are all factors which will ensure the quality of management of this project.
- **E. LONG-TERM PROJECT IMPACT:** Heavy equipment's such as metros are structuring across an agglomeration. A metro is sustainable since its operational life is expected to be over 30 years. The integrated approach to urban development and transport guarantees the sustainability of the proposed action on the long term. The capacity-building program Mobilize Your City, which will be implemented along this project, aims at strengthening the sustainability of the impacts of this project.

NAGPUR METRO MOBILE APP:

One Mobile App Multiple Benefits

- No need to stand in queue for metro ticket booking and Maha Card recharge
- Convenient metro ticket booking at your fingertips.
- Stay updated about metro discounts, timings, etc
- Secure payment through credit. debit card, net banking and UPI vis SBI gateway
- Navigate you to nearest Metro Station
- Provide information of Metro train routes, fare, distance etc.
- Get information of any Metro Station with Contact Details
- Available for Android Platform

NAGPUR METRO MAHACARD

State Bank of India an Maharashtra Metro Rail Corporation Limited (MMRCL) introduces to you Nagpur Metro MAHA Card .

MAHA Card, is a contactless dual interface (EMV chip based) prepaid card with stored value functionality for providing a safe, secure and seamless way of payment. This is a simple way to pay fares across Nagpur Metro. Compartmentalization of amount for different utilities, such as transit, amongst others is a unique feature of this MAHA Card, which can be used for purchase of tickets or loading of passes for metro, using the stored value of the card.

BENEFITS

MAHA Card offers many exciting features and a host of benefits for all your payment needs within Nagpur:

- Cashless travels in Nagpur Metro
- Purchase of tickets and store passes for your Metro travel needs
- Chip-protection to ensure better security for your card
- Easy to use Tap-and-Go functionality

IMPLEMENTATION STRATEGY AND PROJECT IMPLEMENTATION

To ensure that the project is implemented as targeted in this report it has to get the visible positive support from Nagpur Administration, GoM and GoI. To enable Nagpur metro project to be implemented without any loss of time and cost over-run, effective institutional arrangements would need to be set up. Presently, Nagpur Improvement Trust (NIT) is dealing with this Project but there is need to have an SPV responsible entirely for this project.

SPECIAL PURPOSE VEHICLE

A. IMPLEMENTATION THROUGH GOVERNMENT

Under this model, the entire project development, implementation and operation is undertaken and financed by the government authority. Some recent examples of metro rail projects implemented directly through Government agencies are as under.

Delhi • Bangalore • Chennai • Jaipur • Kolkata

B. IMPLEMENTATION THROUGH BOT MODEL

BOT approach assumes that the metro is given to a private partner (Concessionaire) to develop and operate over the concession period. The private partner brings requisite funds and the efficiency of private sector management in the implementation as well as operation of the project. NMRC's role in this option is limited to that of a regulatory authority. Thus, NMRC would monitor the implementation of the project such as laying down the passenger's fares, targets for the minimum number of services to be run by the private partner, frequency, punctuality and reliability of these services, etc. There are only two projects namely Hyderabad and Mumbai being implemented through BOT model. The success of this model in India is still to be known.

C. IMPLEMENTATION THROUGH PPP MODEL

Under this mode, the government entity undertakes all civil works and the associated station work, while all other works like rolling stock, signalling and telecom, track laying work are undertaken by the private partner along with management of the metro service over the concession period. This enables the client to monitor and adhere to quality and construction timelines for the project in a better way. Implementation of airport express line in Delhi is the only example of this model in India

FINANCIAL ANALYSIS OF NAGPUR METRO

COST DETAILS

Cost in INR (crore) At June 2012 price level			
Name of	Distance	Estimated cost	Estimated cost
corridor	(KMs)	without	with central
		central taxes	taxes
North-South corridor	21.833	3618.00	4053.00
East-West corridor	18.266	2921.00	3274.00
Total	40.099	6538.00	7327.00

COMPLETION COST

Financial Year	Cost at June 2012	Completion
	price level	cost
2013-14	918	943
2014-15	1605	1762
2015-16	1716	2056
2016-17	1716	2210
2017-18	686	950
2018-19	343	511
2019-20	343	549
Total	7327	8981

FINANCING OPTIONS

OBJECTIVES OF FUNDING

The objective of funding metro systems is not necessarily enabling the availability of funds for construction but coupled with the objective of financial closure are other concerns, which are of no less importance: -

- a. Ensuring low project cost
- b. Ensuring debt funds at low rates of interest
- c. Creating self-sustainable system in the long run by
 - Low infrastructure maintenance costs
 - Longer life span
 - Setting fares which minimise dependence on subsidies
- d. Recovering returns from both direct and indirect beneficiaries

Rail based mass transit systems are characterised by heavy capital investments coupled with long gestation period leading to low financial rates of return although the economic benefits to the society are immense. Such systems generate externalities, which do not get captured in monetary terms and, therefore, do not flow back to the system. However, experience all over the world reveals that both construction and operations of metro are highly subsidised. Government involvement in the funding of metro systems is a foregone conclusion. In India, GOI & concerned state government have contributed entire equity capital and equally provided interest free subordinate debts for land and central taxes along with ODA loan from JICA for Delhi, Chennai, and Bangalore metro.

ALTERNATIVE MODELS OF FINANCING

The financing option shall depend upon selection of the dedicated agency created to implement the project. The prominent models are: -

- (i) Special Purpose Vehicle under the State Control (Delhi Metro Rail Corporation (DMRC) /Bangalore Metro Rail Corporation (BMRC) model)
- (ii) Public-Private Partnership (PPP) mode Built Operate and Transfer (BOT) model –Other PPP Model

DMRC/BMRC/CMRL PATTERN OF FINANCING /SPV

A Special Purpose Vehicle (SPV) is set up for the implementation of the project and for its subsequent Operation & Maintenance. Under this arrangement Government of India and Government of Maharashtra shall make equal equity contribution and run the SPV as a commercial enterprise as a joint venture of GOI & GOM. As per the prevalent practice, Central Government may be willing to contribute 15% to 20% of the project cost as their equity contribution. An equal amount can be contributed by Government of Maharashtra aggregating the total equity to 40%. With the equal ownership of the SPV, both the governments nominate their representatives as members of the Board of Directors, which in turn select functional directors. Such a SPV has a benefit of independent management under the aegis of Indian Companies Act, 1956. Delhi Metro Rail Corporation, Chennai & Bangalore metro corporations are shining example of success of such SPV. For the balance 60% funding requirement, options available are as follows: -

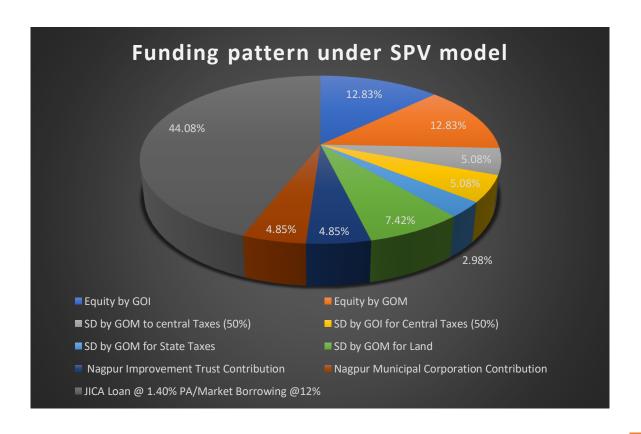
- (i) SUBORDINATE DEBT: For Delhi Metro, land and rehabilitation and resettlement cost have been borne by GOI & GNCTD equally as interest free subordinate debt. Now, MOUD have changed the policy under which the cost of land for Bangalore Metro was borne by Government of Karnataka as interest free subordinate debt. Similarly, the cost of Land including rehabilitation and resettlement cost amounting to Rs.644.00 Crore may be contributed as interest free subordinate debt by GOM. This mezzanine financing is of extreme help in quickening the pace of land acquisition, since the compensation amount is released to evacuate instantaneously. The loan is of longer duration and becomes repayable only after other long term loans raised for the project is repaid.
- (ii) **DEBT**: The balance cost is to be met through loans from various institutions namely JICA, Local borrowing, loans from ADB/World Bank and Suppliers Credit.
- (iii) JICA LOAN: -Overseas Development assistance from Japan International Cooperation Agency (JICA) may be availed of for metro rail projects with interest @ 1.40%PA lend it to the SPV on back-to-back basis. The loan is repayable in 30 years including moratorium period of 10 years. The loan is being provided by JICA to GOI which in turn releases the same to SPV under a Pass-Through Assistance (PTA) mechanism. Normally, JICA funds for underground civil works, Electrical, Signalling &Telecom and Rolling Stock only. Since the loan will be in Japanese Yen, fluctuation in exchange rate at the time of repayment shall be borne by the Central Government and Government of Maharashtra in proportion to which their shareholding. Alternatively, JICA can release the loan to the SPV for which a sovereign guarantee will be required from Central Government. Foreign exchange variation in such eventuality will be borne either by the SPV or GOM. In either case loan shall be repaid by SPV from the income streams of metro operations.
- (iv) LOAN FROM ASIAN DEVELOPMENT BANK (ADB)/WORLD BANK: The Loan shall be available from ADB/World Bank, but as per the experience its processing and approval normally takes 8-12 months. The interest rate is linked with periodically LIBOR. These bilateral funding institutions also charge some margin ranging from 200 basis points to 300 basis points. This may delay the

implementation of the project resulting in avoidable increase in the completion cost. Recently, Bangalore Metro availed ADB loan.

- LOAN FROM BANK AND FINANCIAL INSTITUTIONS: Funds can be **(v)** arranged from domestic Financial Institutions like India Infrastructure Finance Company Limited (IIFCL), India Development Financing Corporation (IDFC), Life Insurance Corporation of India (LIC), IDBI Bank, ICICI Bank Ltd etc. These institutions are increasingly engaged to fund infrastructure projects subject to their commercial viability against guarantee from GOI. There are many models available under which the funds can be arranged by these financial institutions with or without syndicating with other commercial banks. IIFCL e.g., fund 20% of the project cost and arrange balance through the syndication of commercial banks with a lead banker among the consortium of bankers. The loan can be given for a period of 20-30 years with interest rate ranging from 9.50% to 12% PA. IIFCL can also provide 100% funding against GOI guarantee. They arrange ECB to the extent of foreign currency requirement at very competitive rate. The funding arrangement may require the central government guarantee as well. Since the rate of interest of these financial institutions is much higher than the interest rates of soft loan provided by JICA, GOI and GOM shall have to bear the interest difference and provide suitable subsidy to the SPV to make the project financially sustainable.
- (vi) SUPPLIERS CREDIT: Suppliers Credit is an established method to secure funding of imports. It is backed by EXIM banks of exporting countries and is often a much better instrument than bilateral aid. While bilateral aid ties the borrowing entity, Suppliers Credit can be used intelligently and effectively to spur competition in competitive international tendering method. In case of Rolling Stock, where market is truly competitive (unlike S&T) an attractive rate of interest for suppliers' credit is possible. However, the supplier will load the amount of interest in the cost of supply due to which the effective completion cost will be very high.

FUNDING PATTERN UNDER SPV

	With Taxes & Duties	
Particulars	Amount	% Of contribution
Equity by GOI	1114.00	12.83%
Equity by GOM	1114.00	12.83%
SD by GOM to central Taxes (50%)	441.00	5.08%
SD by GOI for Central Taxes (50%)	441.00	5.08%
SD by GOM for State Taxes	259.00	2.98%
SD by GOM for Land	644.00	7.42%
Nagpur Improvement Trust Contribution	421.00	4.85%
Nagpur Municipal Corporation Contribution	421.00	4.85%
JICA Loan @ 1.40% PA/Market Borrowing @12%	3825.00	44.08%
TOTAL	8680.00	100%



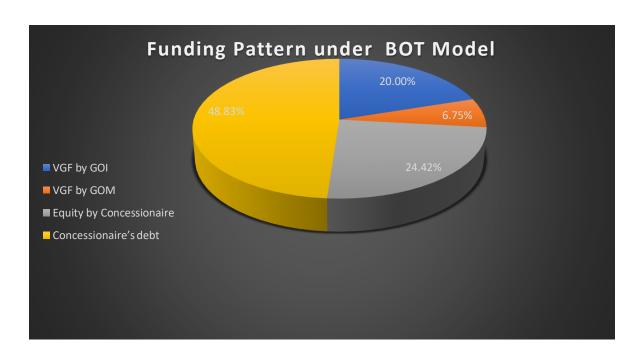
PUBLIC PRIVATE PARTNERSHIP MODE

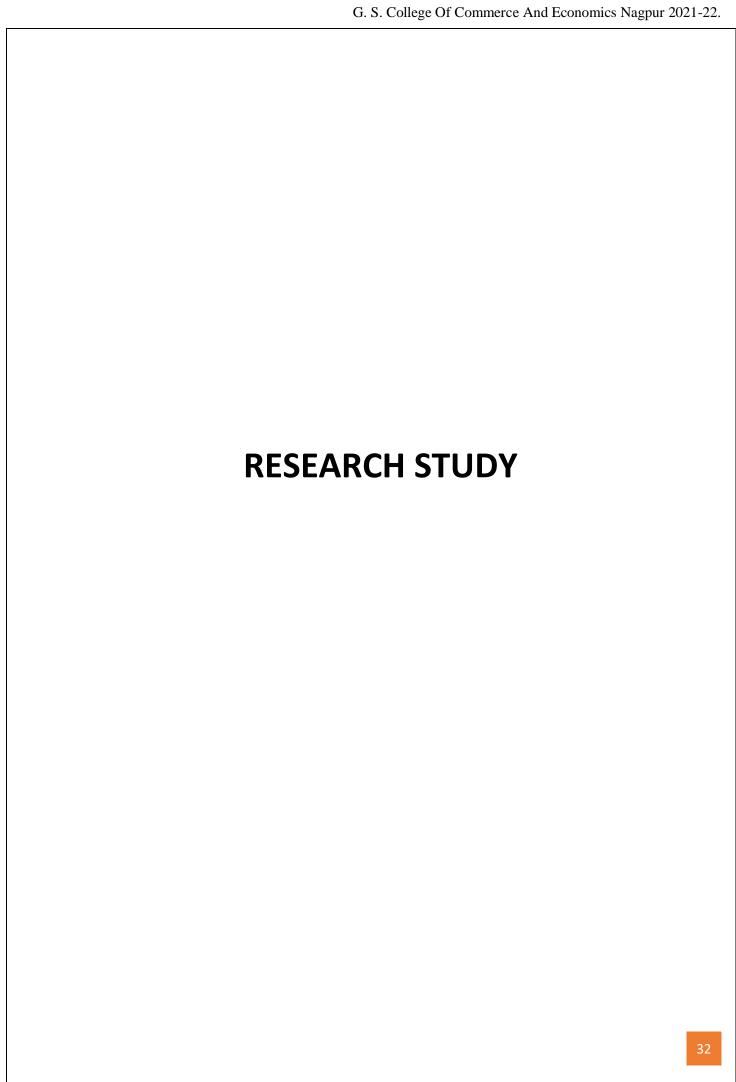
Public Private Partnership (PPP) arrangements are steadily growing in use particularly in road, power, and telecom sectors which are more of commercial nature rather than in a social sector project. PPP models are arrayed across a spectrum ranging from BOT where the private sectors have total involvement to other tailor made models where both public and private sector assume separate responsibilities. A few alternatives which can be selected in this regard are: -

BOT MODEL: - In this model, the private firm will be responsible for financing, designing, building, operating and maintaining of the entire project. The contribution of Government of Maharashtra will be limited to cost of land only. Such a project become eligible for Viability Gap Funding (VGF) up to 20% from the Central Government provided the state government also contribute same amount towards the project. The metro being a social sector project may not attract much private parties. Besides quite expectedly the private operator may demand assured rate of return in the range of 16% to 18% (Equity IRR) or a comfort of guaranteed ridership etc

FUNDING PATTERN UNDER BOT MODEL (WITH ALL TAXES)

Particulars	Amount (Rs/Crore)	% of contribution
VGF by GOI	1555.40	20.00%
VGF by GOM	524.60	6.75%
Equity by Concessionaire	1899.00	24.42%
Concessionaire's debt	3798.00	48.83%
Total	7777.00	100.00%





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 reflect 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 eco-friendly. 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.

OBJECTIVES OF THE STUDY

- 1. Study of Nagpur Metro: Function and Its Working.
- 2. Sources of Funding of Nagpur Metro.
- 3. Effects of Nagpur Metro on and Environment

HYPOTHESIS OF THE STUDY

H0= The financial position of Nagpur metro is not strong.

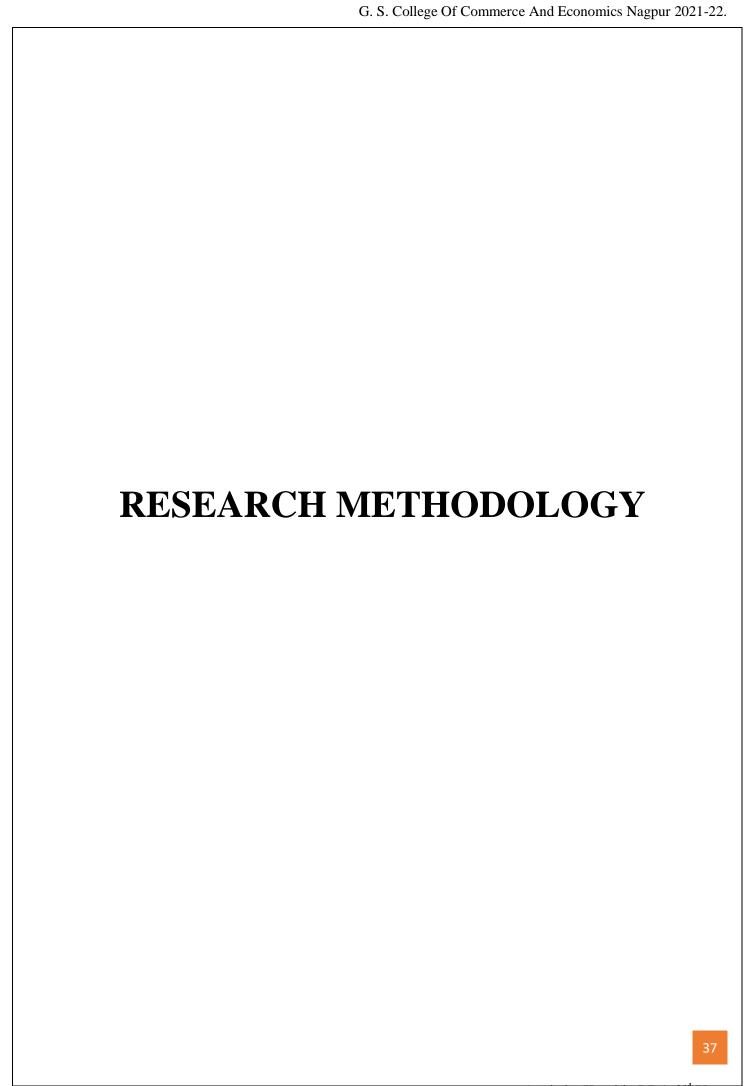
H1= The financial position of Nagpur metro is strong

H0 Nagpur metro not able to maintain good financial ratio

H1= Nagpur metro is maintaining good financial ratio

SCOPE OF STYDY

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.



RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem, as to how research is done scientifically. It consists of the different that generally adopted by researcher to study his research problem along with logic behind them. It is necessary for the researcher to develop certain test.

The research methodology is surely and simply the framework of plan for collection and analysis of data. A good methodology is very important to carry out research. It concluded research design, research approach and research instrument and sampling.

RESEARCH DESIGN

Research design is a pre-planned sketch for the explanation of a problem. It is the first step to take and the whole research. Study will conduct on the basis of this research design. It gives us a due that how the further process would be taking place and how would be the research study carry into classification, interpretation and suggestions. This is a guideline for the whole work.

TYPES OF RESEARCH

The basic types of research are as follows:

[1] DESCRITPTIVE VS. ANALYTICAL

Descriptive research includes survey and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. In social science and business research we quite often use the term Ex post facto research for descriptive research studies. Example, frequency of shopping, preferences of people, or similar data. The methods of research utilized in descriptive research are survey methods of all kinds, including comparative and correlation methods

[2] APPLIED VS. FUNDAMENTAL

Research can either be applied (or action) research or fundamental (to basic or pure) research. Applied research aims at finding a solution for an immediate problem facing a society or an industrial/business organization, whereas fundamental research is mainly concerned with generalization and with the formulation of a theory. "Gathering knowledge for knowledge's sake is termed 'pure' or 'basic' research.

[3] CONCEPTUAL VS. EMPIRICAL

Conceptual research is that related to some abstract ideas or theory. It is generally used by philosophers and thinkers to develop new concepts or tore interpret existing ones. On the other hand, empirical research relies on experience or observation alone, often without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment.

We can also call it as experimental type of research. He then set up experimental designs which he thinks he will manipulate the person or the material concerned so as bring forth the desired information

[4] SOME OTHER TYPES OF RESEARCH

All the types of research are variation of one or more of the above stated approaches, based on either the purpose of research, or the time required to accomplish research, on the environment in which research is done, or on the basic of some other similar factor.

RESEARCH TECHNIQUE:

A researcher is using descriptive research for the research.

TYPES OF RESEARCH METHOD

QUANTITATIVE VS. QUALITATIVE

Quantitative research is based on the measurement of qualitative or amount. It is applicable to phenomena that can be expressed in teams of qualitative. Quantitative research, on the other hand, is concerned with qualitative phenomena relating to or involving quality or kind. for instance, in investigating the reasons for humans' behavior, we quite often talk of motivation research an important type of qualitative research. This type of research aims at discovering of such research are word association tests, sentence completion test, story completion tests and similar other projective techniques.

RESEARCH METHOD

A researcher is using quantitative research method for the research.

SAMPLE DESIGN

A sample design is made up of two elements. Sampling method refers to the rules and procedure by which some elements of the population are included in the sample. Some common sampling methods are simple random sampling, stratified sampling,

TYPES OF SAMPLING METHODS

Sample designs are basically divided into two types

[1] PROBABILITY SAMPLING:

The method in which all units of the universe is given equal chance of being selected in the sample, is known as probability sampling. There is an assurance of the result in terms lies of probability that are obtained through probability or random sampling.

TYPES OF PROBABILITY SAMPLING:

Simple Random Sampling Stratified Random Sampling Systematic Sampling Cluster Sampling.

Multi-stage Sampling Area Sampling

[2] NON-PROBABILITY SAMPLING:

Non-probability sampling is that type of sampling procedure which does not have any ground for estimating the probability that whether or not each item in the population has been included in the sample is known as non-probability sampling.

TYPES OF NON-PROBABILITY SAMPLING:

Convenience Sampling Purposive

Sampling Panel Sampling Snowball

SAMPLING METHOD

Researcher is using probability sampling for this research which is based on the fact that every member of a population has a known & equal chance of being selected.

SAMPLE TECHNIQUES

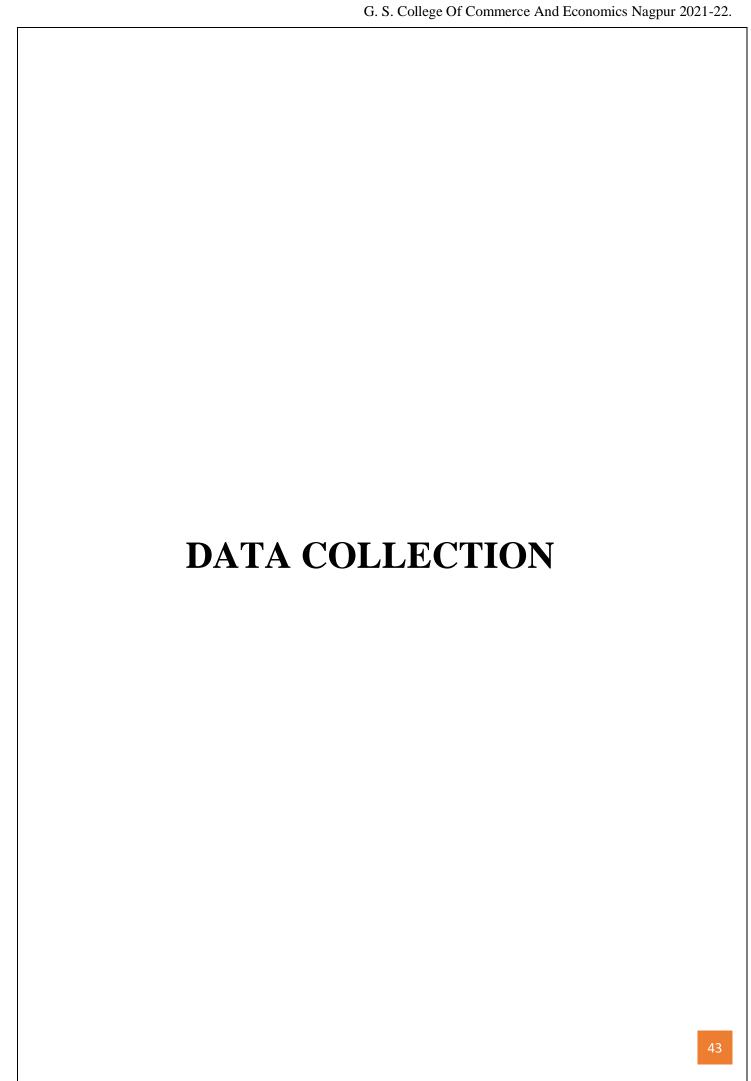
A Researcher is using simple random sampling technique for the research. A sample technique is the name or other identification of the specific process by which the entities of the sample have been selected.

SAMPLE SIZE: -

The Sample Size chosen for this study is 30 Respondent.

SAMPLE AREA: -

Online



DATA COLLECTION

1. PRIMARY DATA

2. SECONDARY DATA

A research plan was followed for gathering primary data, secondary data or both.

PRIMARY DATA

Primary data consisted of original information gathered for the specific purpose. Data was collected from the primary sources i.e.; questionnaire was developed with the help of which personal interview were carried out. Also, along with this I earned out personal interviews with direct users like contractor and domestic users.

Primary data is information that you collect specifically for the purpose of your research project. An advantage of primary data is that it is specifically tailored to your research needs. A disadvantage is that it is expensive to obtain.

Sources of Primary Data: Questionnaires, Personal Interviews.

SECONDARY DATA

The secondary data are collected from Nagpur city Authorized dealer of, from broachers, from website of the company, newspapers, and magazines. Secondary data refers to data that was collected by someone other than the user.

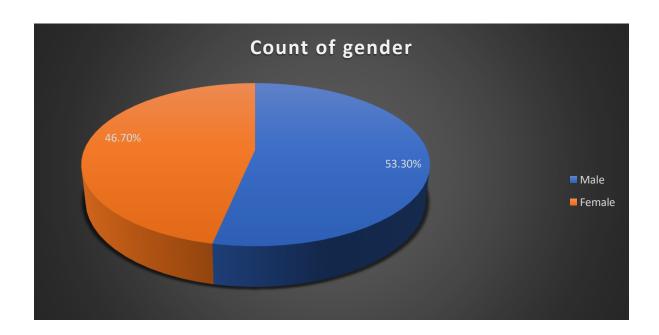
Secondary data analysis can save time that would otherwise be spent collecting data and, particularly in the case of quantitative data, can provide larger and higher- quality databases that would be unfeasible for any individual researcher to collect on their own.

Sources of secondary data: Newspaper, magazines. Journals, Company Website, Books.

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DATA ANALYSIS AND INTERPRETATION	
	45

COUNT OF GENDER

Gender	No. of	Percentage
	Respondent	_
Male	16	53.30%
Female	14	46.70%
Total	30	100.00%

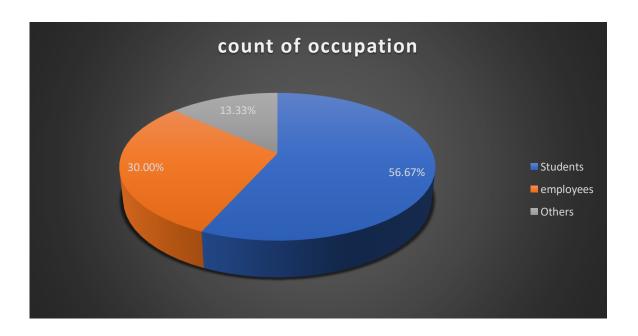


Interpretations

It was observed from chart no 1 that 53.30 of the respondents were Female and 46.70 % were male

Que.1. What is your occupation?

Occupations	No of Respondent	Percentage
Students	17	56.67%
Employees	9	30%
Others	4	13.33%
Total	30	100%

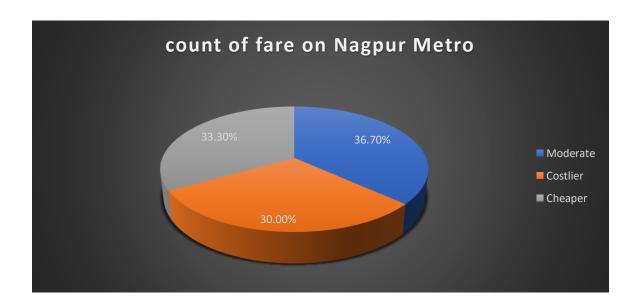


Interpretation

It was observed from the chart no.2 that out of total respondents 56.67% were students, 30% were employees and 13.33% from other background.

Que.2. What do you think about the fares of Nagpur Metro?

Fares	No. of respondent	percentage
Cheaper	10	33.30%
Moderate	11	36.70%
Costlier	9	30%
Total	30	100%

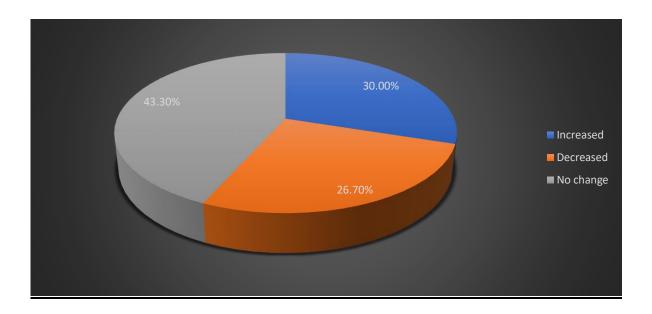


Interpretation

It was observed from the chart that 36.7% of the respondents feels that the fare of Nagpur Metro is moderate, 33.3% feels the fare are cheap whereas only 30% of the respondents felt it costlier

Que.3. Do you think Nagpur Metro Rail can solve the traffic issue of Nagpur city?

	No. of respondent	Percentage
Increased	9	30.00%
Decreased	8	26.70%
No Change	13	43.30%
Total	30	100%

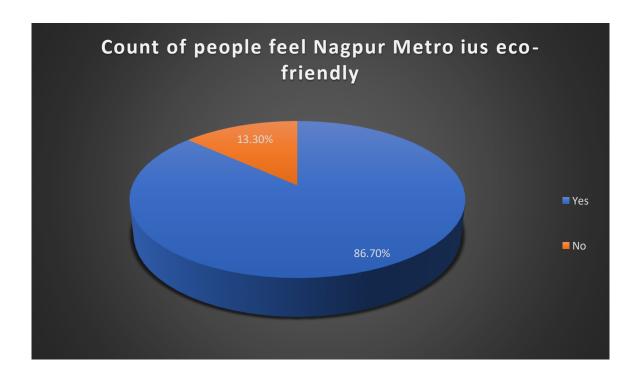


Interpretations

It was observed from the chart no.4 that after the introduction of Nagpur Metro, 30% respondents feel traffic on the roads of Nagpur has decreased and 43.3% does not feel any change and 26.7% respondents feel the traffic has increased

Que.4. Do you feel Nagpur Metro is eco-friendly?

Particular	No. of respondent	Percentage
Yes	26	86.7%
No	4	13.3%
Total	30	100%



Interpretations

It was observed from the chart no.5 that 86.7% respondents thinks that Nagpur Metro is Ecofriendly, whereas 13.3% does not feel it Eco-friendly.

RATIO ANALYSIS

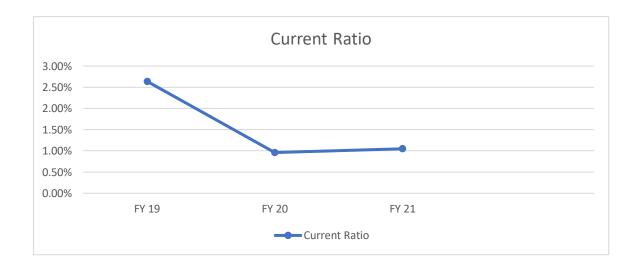
A. CURRENT RATIO

A high ratio shows that the firm is liquid and is able to meet its current obligations. A low current ratio shows that the firm is not equipped to meet its short-term obligation as and when they become due. The ideal current ratio is 2:1, which denotes that short term assets should be twice the value of short-term liability. This is to provide for an expected delay and defaults. However, this measure shouldn't be followed blindly.

The quality as well as the quantity of the assets should be measured for effective evaluation. A high current ratio is considered good but at the same time, it may also indicate stagnant inventory. current ratio may also be high due to uncollected debts. Ideal cash and bank balance may also cause the current ratio to be high. Low current ratio may indicate that the business does not have sufficient funds to honour its obligations. It may also show that the business s trading over and above its capacity

Current Assets (C.A.)/Current Liabilities (C.L.)

Particular	FY 2019	FY 2020	FY 2021
Current Assets	100,625.39	228,365.24	135,325.75
Current Liabilities	38,066.4	236,176.16	128,181.46
Current Ratio (%)	2.64%	0.96%	1.05%



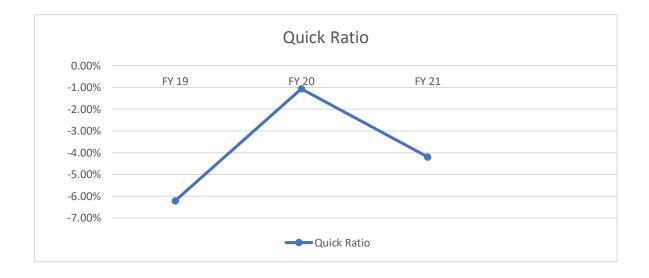
Interpretations: It is observed from above graph that current ratio of Nagpur Metro was 2.64% for Financial Year 2019 and it was declined to 0.96% for the Financial Year 2020 and for the previous Financial Year i.e., 2021 it is found to be increasing gradually.

B. QUICK RATIO: -

Quick ratio is considered to be a better measure of short-term liquidity than current ratio. Current ratio is quantitative in its scope and does not adequately address the liquidity concerns of the firms. Quick ratio, on the other hand, is qualitative and offers a more stringent test as it uses only cash and near-cash assets. As a rule of thumb, quick ratio of 1:1 is considered ideal. This ratio is widely used by banks and financial institutions. It should be used in conjunction with current ratio in order to assess short term solvency and financial soundness of the firm.

CURRENT ASSETS (-) INVENTORIES / CURRENT LIABLITIES

PARTICULAR	FY 2019	FY 2020	FY 2021
Current Assets	100,625.39	228,365.24	135,325.75
Inventories	337,344.76	482,089.32	674,062.77
Current Liabilities	38,066.4	236,176.16	128,181.46
Quick Ratio (%)	-6.21%	-1.07%	-4.20%



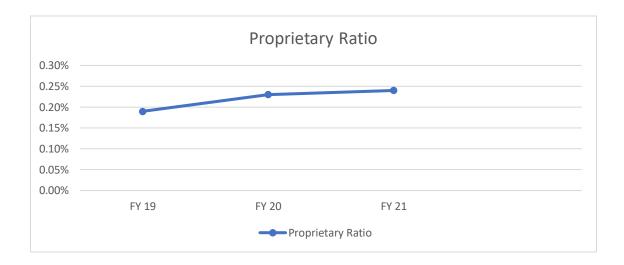
Interpretations: It is observed from above graph that Quick ratio of Nagpur Metro was are below one or negative. The Quick ratio for FY 2019 was -6.21% and found to be decreasing to -1.07% as per FY 2020 and for the previous it showed increase in Quick ratio upto-4.20%.

C. PROPRIETARY RATIO

Higher proprietary ratio shows that company are mainly funded using shareholders 'funds, which is considered good for the company's long-term solvency. The ratio also shows the extent to which the company may lose its assets and not impact the Interest of its creditors

Proprietary ratio = Shareholders Fund Total Asset

PARTICULA R	FY 2019	FY 2020	FY 2021
Shareholder's Fund	153,890.0	301,843.46	348,443.46
Total Assets	782,499.85	1,268,492.6 5	1,447,764.43
Proprietary Ratio (%)	0.19%	0.23%	0.24%



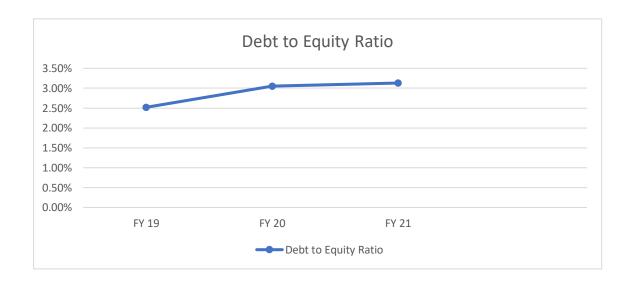
Interpretations: It is observed from above graph that Proprietary ratio of Nagpur Metro was are below one. As for FY 2019 It was 0.96% and found to be decreasing to 0.23% for FY 2020. There is increase in the Proprietary ratio up to 0.24% for the FY 2021.

D.DEBT TO EQUITY RATIO: -

High debt equity ratio shows that the business is making more use of debt funds and thus is aggressive in its financial decisions. High debt financing helps the business in generating higher magnitude of earnings than it may have without resource to debt funding. This benefits the shareholders if the business increases its earning more than its interest commitments. Sometimes, the situation of bankruptcy occurs when the cost of debt financing is more than the income generated from the raised funds in the business activities.

Debt To Equity Ratio = <u>Total Liabilities</u> Total Shareholders' Equity

PARTICULAR	FY 2019	FY 2020	FY 2021
Total Liabilities	782,499.85	1,268,492.65	1,447,764.43
Total Shareholders' Equity	309,908.55	415,112.71	462,635.02
Debt To Equity Ratio (%)	2.52%	3.05%	3.12%



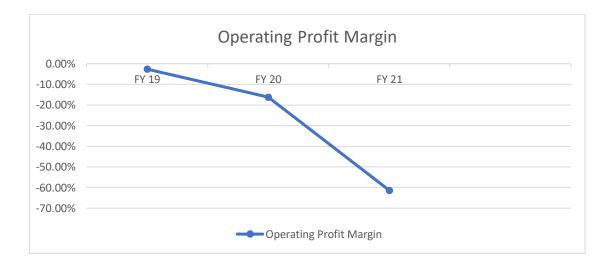
Interpretations: It is observed from above graph that Debt to Equity Ratio of Nagpur Metro is good and seems to be increasing. It was found that the Debt-to-Equity Ratio for FY 2019, FY 2020 and FY 2021 are 2.52%,3.05% and 3.12% respectively.

E.OPERATING PROFIT MARGIN: -

Operating margin measures how much profit a company makes on a dollar of sales after paying for variable costs of production, such as wages and raw materials, but before paying interest and tax.

OPERATING PROFIT MARGIN = <u>OPERATING PROFIT</u>*100 NET SALES

PARTICULAR	FY 2019	FY 2020	FY 2021
Operating Profit	-711.12	-6,710.28	- 17,858.07
Net Sales*(100)	26,859.18	41,342.63	29,096.54
Operating Profit Margin (%)	-2.64%	-16.23%	-61.37%



Interpretations: It is observed from above graph that Operating Profit Margin of Nagpur Metro is seems to be negative. The Negative margin implies Nagpur Metro is suffering from losses.

Hypothesis Testing

Hypothesis1:

H0= The financial position of Nagpur metro is not strong.

H1= The financial position of Nagpur metro is strong

Hypothesis 2:

H0= Nagpur metro not able to maintain good financial ratio.

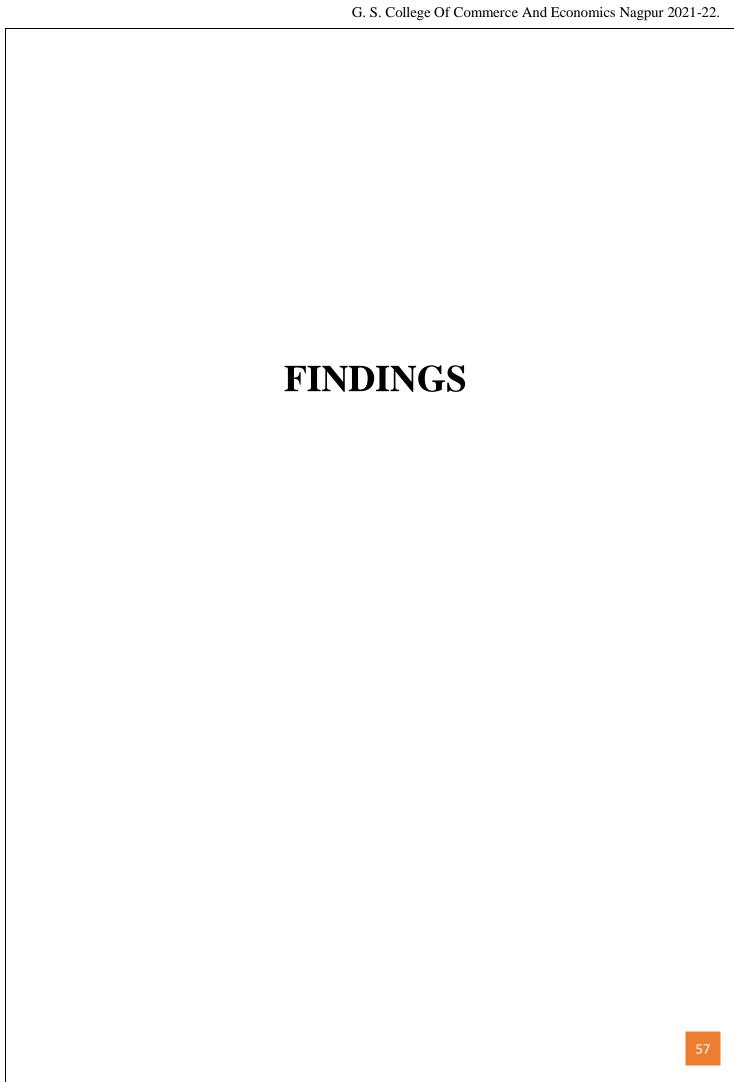
H1= Nagpur metro is maintaining good financial ratio.

Hypothesis 1 Testing:

After studying the balance sheet of Nagpur Metro for the year 2018-19, 2019-20 & 2020-21. It is found that Nagpur Metro is continuously suffering with losses. Hence it can be concluded that Null hypothesis i.e.H0 "The financial position of Nagpur Metro is not strong "is found to be true and so accepted, whereas alternate hypothesis H1 is rejected.

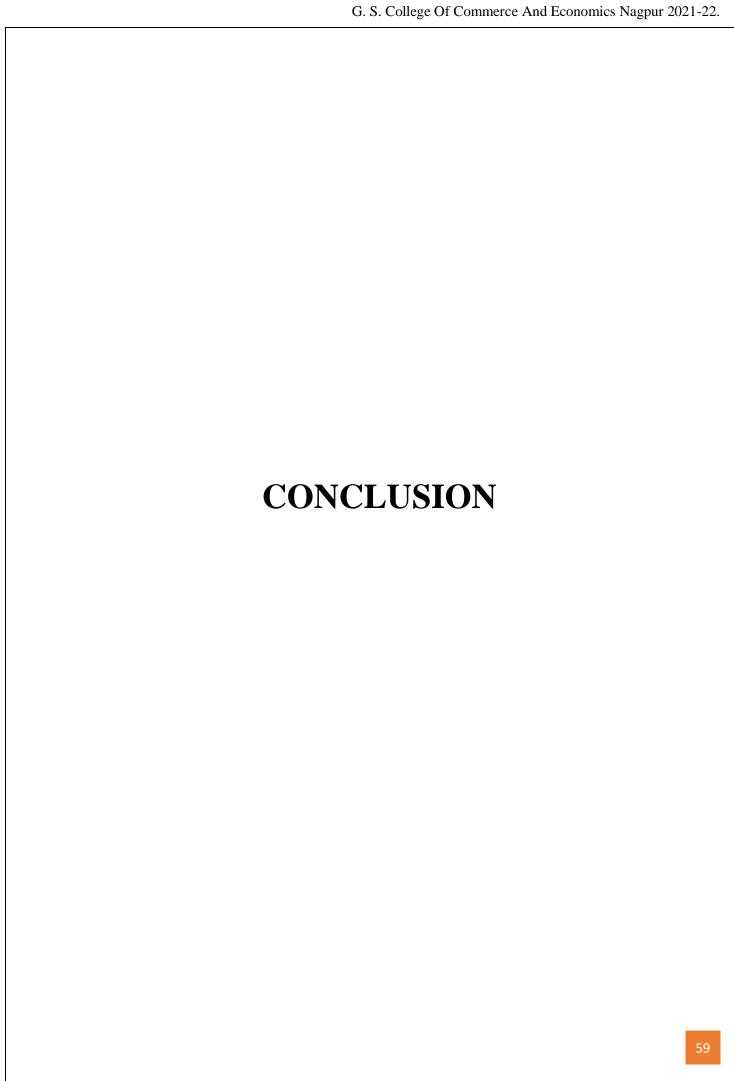
Hypothesis 2 Testing:

The higher the ratio, the better the company is at using their asset to generate income. After studying the balance sheet of Nagpur Metro for the year 2018-19,2019-20 & 2020-21. Also, after calculating analysis of various ratios it is found that only current asset ratio is comparatively good and debt to equity ratio is good where as other ratios are below one or in negative. Hence it is concluded that Null Hypothesis i.e., H0" Nagpur Metro is not able to maintain good financial ratios" is found to be true and accepted whereas alternate hypothesis is rejected.



FINDINGS

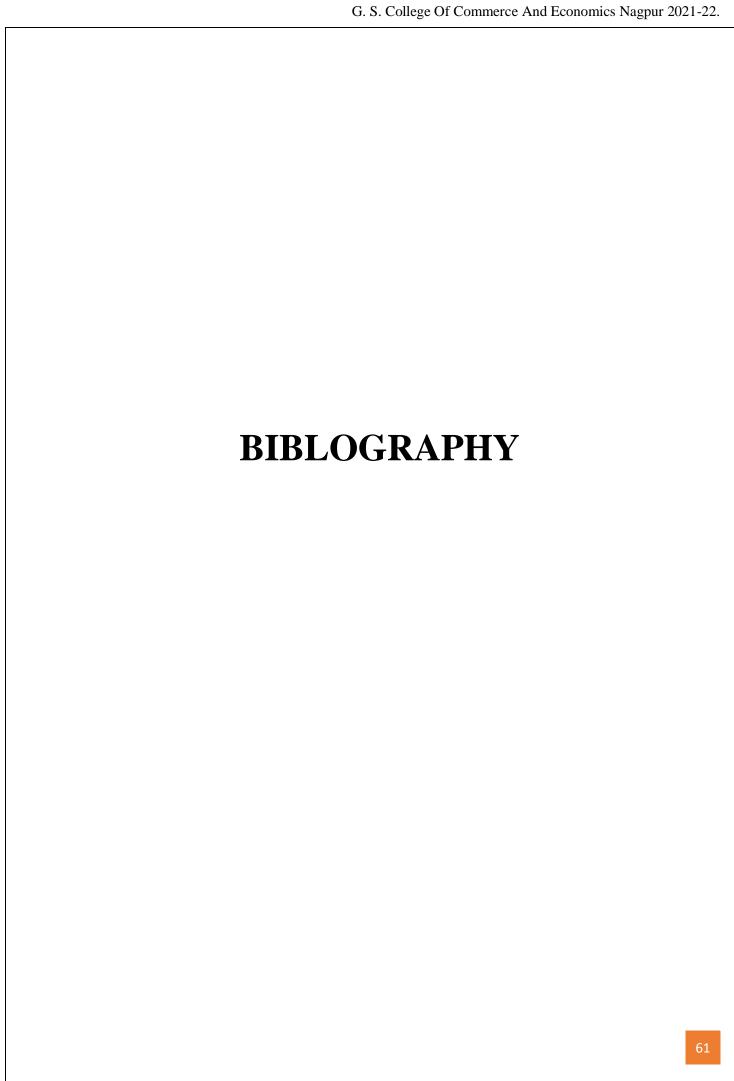
- 1. The current ratio of Nagpur Metro was 2.64% for Financial Year 2019 and it was declined to 0.96% for the Financial Year 2020 and for the previous Financial Year i.e.,2021 it is found to be increasing gradually.
- 2.The Quick ratio for FY 2019 was -6.21% and found to be decreasing to -1.07% as per FY 2020 and for the previous it showed increase in Quick ratio upto-4.20%.
- 3. The Proprietary ratio of Nagpur Metro are below one. As for FY 2019 it was 0.96% and found to be decreasing to 0.23% for FY 2020. There is increase in the Proprietary ratio up to 0.24% for the FY 2021.
- 4.The Debt-to-Equity Ratio of Nagpur Metro is good and seems to be increasing. It was found that the Debt-to-Equity Ratio for FY 2019, FY 2020 and FY 2021 are 2.52%,3.05% and 3.12% respectively.
- 5.Operating Profit Margin of Nagpur Metro is found to be negative. The Negative margin implies Nagpur Metro is suffering from losses.



CONCLUSION

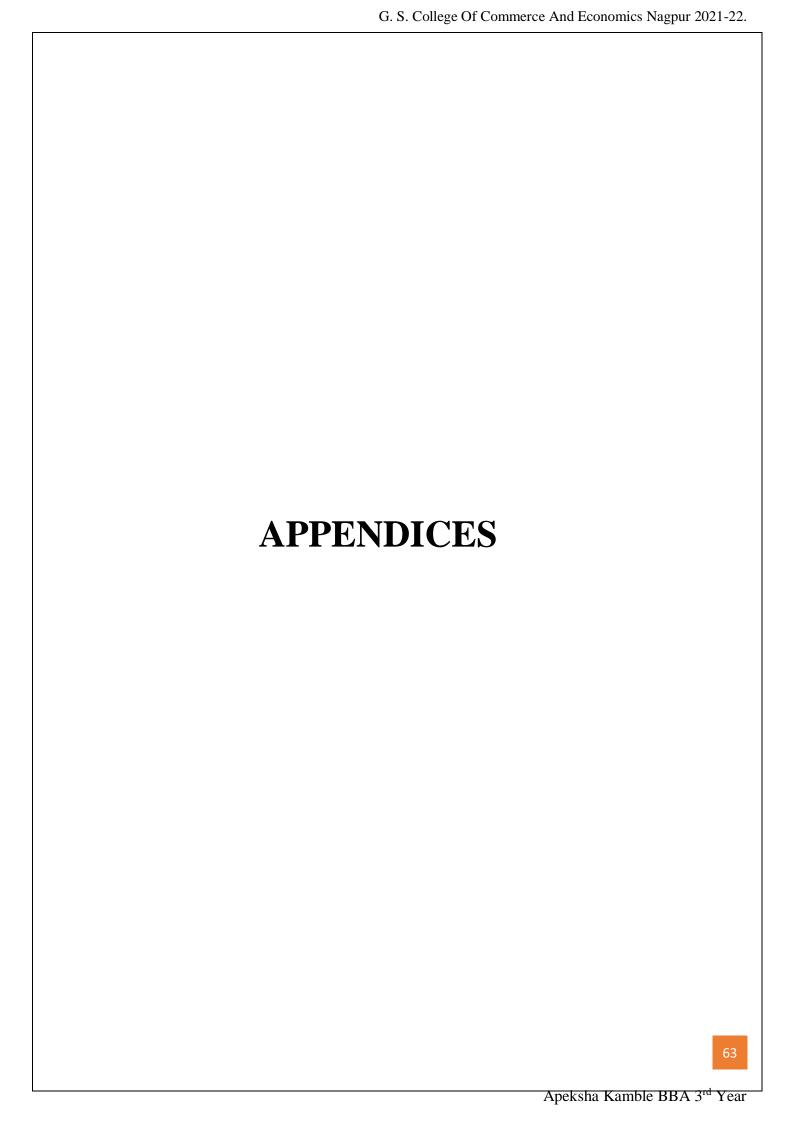
The study consisted with the aspects in which people of Nagpur city are satisfied with the introduction of Metro in the city. Although most of the people are satisfied with metro project, some still thinks some improvements can be made to metro project in terms of fare and convenience. Although metro 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.

It was found from Ratio Analysis of Nagpur Metro that it is not able to maintain good Financial Ratios and are suffering losses. It can be found that for FY 2020 Nagpur Metro suffered high losses due to Pandemic and hope it will be able to maintain goof financial position in future.



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- News Papers & Articles
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BALANCE SHEET OF NAGPUR METRO (in lakhs)

Particular	As at 31st March 2019	As at 31st March 2020	As at 31st March 2021
ASSETS			
Non-current assets			
Property, Plant &	206,259.73	404,411.60	489,610.66
Equipment			
Intangible Assets	6449.34	4,719.80	2,865.16
Capital Work in Progress	337344.76	482,089.32	674,062.77
Financial Assets			
Loans	89.86	60.17	37.66
Other Financial Assets	467.87	4224.95	252.57
Other Non-Current Assets	6577.00	34,502.24	25,122.86
Deferred Tax Assets (Net)	-	109.43	1,762.74
Current assets			
Financial Assets	6211.04	22.004.51	7.070.47
Trade receivable	6211.84.	22,884.51	7,272.47
Cash & Cash Equivalents	65213.58	100,427.33	106,430.17
Other Bank Balances	29199.97	105,053.40	21,623.11
Loans	35.15	31.02	20.43
Other Financial Assets	59017.39	71,459.76	72,363.27
Other Current Assets	63655.51	37,677.43	43,173.55
Current Tax Assets (Net)	1927.85	3,360.95	3,167.01
Total Assets	782,499.85	1,268,492.65	1,447,764.43
EQUITY AND LIABILITIES	ĺ	, ,	
Equity			
Equity Share Capital	153890.00	301,843.46	348,443.46
Other Equity	156018.55	113,269.25	114,191.56
Liabilities			
Non-Current Liabilities			
Financial Liabilities			
Borrowings	397797.13	573,887.86	835,990.01
Other Financial Liabilities	1119.11	1,261.15	1,018.14
Provisions	616.58	1,245.12	1,501.77
Deferred Tax Liabilities	381.15	-	-,- <
Current Liabilities			
Financial Liabilities			
Trade Payable	28641.14	59,258.89	
-Total Outstanding dues of		,	
micro, small and medium			1,669.04
enterprise			
-Total outstanding dues of			32,051.80
creditors other than micro,			
small and medium enterprise	20015		00.020.02
Other Financial liabilities	6688.15	174,024.77	89,920.93
Other Current liabilities	2737.11	2,892.50	4,539.69
Provisions	34610.93	40,809.65	18,438.03
Total Equity and Liabilities	782,499.85	1,268,492.65	1,447,764.43

STATEMENT OF PROFIT AND LOSS FOR NAGPUR METRO

PARTICULAR	As at 31st	As at 31st	As at 31st
	March	March	March
	31, 2021	2020	31, 2019
Income			
Revenue from Operations	22,238.80	31,762.23	21,711.90
Other income	6,857.75	9,580.40	5,147.28
Total Income	29,096.54	41,342.63	26,859.18
Expenditure			
Operating Expenses	24,585.05	31,320.66	21,192.24
Employee benefits Expenses	3,166.25	2,880.47	276.31
Finance cost	1,413.86	513.98	76.41
Depreciation and Amortisation Expenses	15,676.27	9,285.19	2,591.75
Other Expenses	2,113.18	4,052.61	3,433.59
Total Expenditure	46,954.62	48,052.91	27,570.30
Profit/(Loss) Before Tax	-	-6,710.28	-711.12
	17,858.07		
Tax Expense			
Current Tax			
ExpenseDeferred Tax	1,680.04	454.41	-1,113.10
Profit/(Loss) for the Year	1 < 150 00	-6,255.87	-1,824.22
	16,178.03		
Other Comprehensive Income/(Loss) 1. Items that will not be reclassified to Profit& Loss Less: Deferred Tax relating to Items that will not be reclassified to Profit &	102.80	-139.10	-41.20
Loss 2. Items that will be reclassified to Profit &Loss	-26.73	36.17	12.85
Total Comprehensive Income/(Loss)	76.07	-102.93	-28.35
Earnings Per Share (Equity Share of Rs 10	- 16,101.96	-6,358.80	-1,852.57
each)	10,101.70	-0.24	-0.13
Basic	-0.49	0.22	
(Rs.) Diluted		-0.22	-0.11
(Rs.)	-0.44		
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