

A STUDY ON ROAD WAY TRANSPORTATIMANAGEMENT TOWARDS GENERAL PUBLIC ON COVID-19

Submitted in partial fulfilment of the requirements for the award of

Master of Business Administration

by

DINESH N J

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SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

April - 2021



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **DINESH N J 39410050** who carried out the project entitled "**A Study on Roadway Transportation Management Towards General Public On Covid 19**" under my supervision from January 2021 to March 2021.

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DECLARATION

I **DINESH N J 39410050** hereby declare that the Project Report entitled **A Study on Roadway transportation management towards general public on COVID-19** done by me under the guidance of **Dr. DIVYA SATHISH** is submitted in partial fulfilment of the requirements for the award of Master of Business Administration degree.

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ABSTRACT

The COVID-19 made impact in Roadway transportation sector towards public. In india the transportation is most effected sector due to the pandemic situation and most of the public avoid public transportation because of COVID. Transportation sector has been one of the most effected sector in COVID-19. From rickshaw pullers to bus drivers, all have been affected economically by the pandemic. India's overall energy demand fell down. In this situation people routine work effected and also people can manage there health and safety. Based on collected data from 120 online respondents during on COVID-19, This study is about examine the roadway transportation management towards general public. How people travel safely on covid situation how they are struggled due to less transportations. The study used SPSS analytical tools such as Correlation, ANOVA and Independent T.test. This tools is used and found how impacts roadway public transportation. Finally, the result showed that in this pandemic situation most of the people were effected their daily work due to less transportation and they can manage it.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

During COVID 19 the transportation sector is most effected sector and it leads the demand of transportation more. Many of the public get struggle due to less transportation during the lockdown and the public who going the work daily on roadways they are also effected by COVID 19 .And the goods and services are also effected on COVID 19. Due to lockdown in India, the demand for passenger transport has been adversely hit. The over all transportation sector as on COVID 19.

After impliment of the lockdown people gets more struggled to travel one place to another place also they faces the major problems of less food and health care due to less transportation. Many of the migrant workers are reach there natives by walking it self.

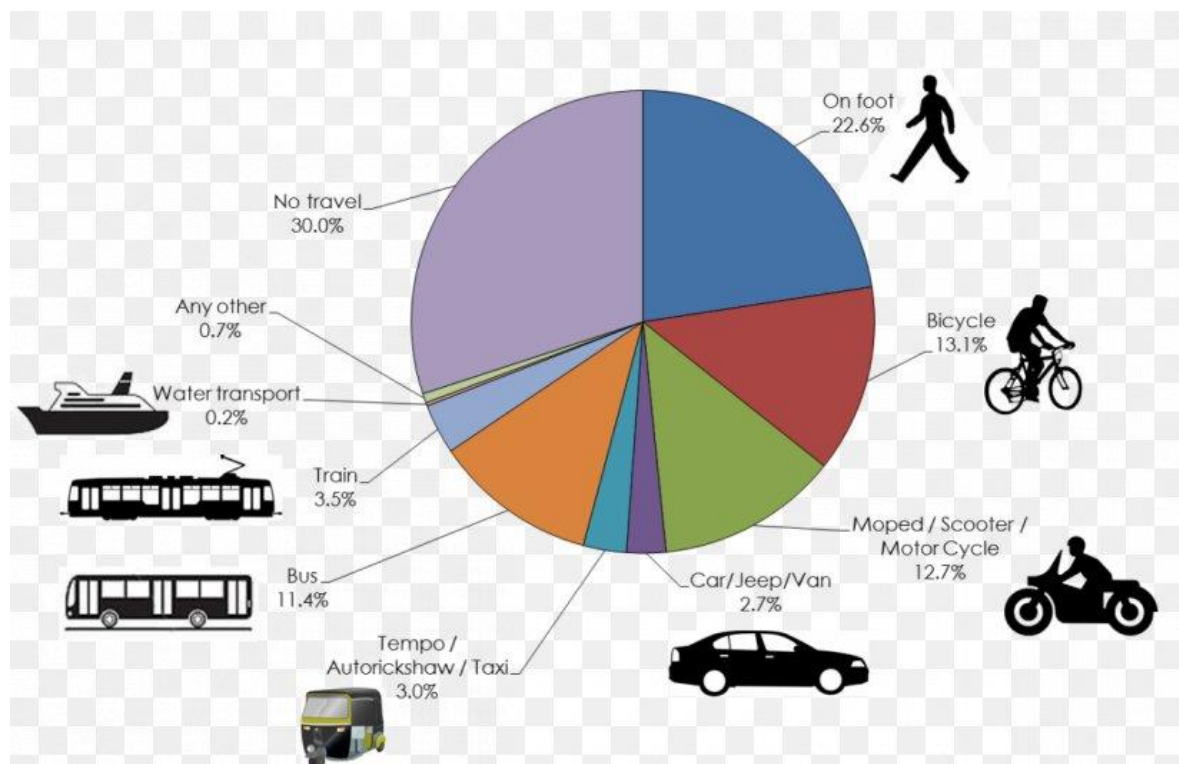
Transportation sector has been one of the most effected sector in covid 19 victims of COVID-19. From rickshaw pullers to airlines, all have been affected economically by the pandemic. India's overall energy demand fall down by 11% in March to september 2020.The freight segment has had a mixed short-term effect in terms of transportation demand. There is a surge in demand for truck drivers in transportation of essential goods. For instance, there is 40% to 60% increase of product being moved into grocery stores and warehouses in US since COVID spread started. However, the supply chain disruption and slowdown caused by COVID is expected to pull down freight demand in the medium-term. Urban freight segments in India have also had a mixed short-term effect in terms of transportation demand. Since February, the online food orders have dropped by 20% whereas online grocery orders are overflowing. It is to yet to be seen whether these acquired habits of online grocery shopping will sustain after the pandemic passes.

Even though the fall in passenger transport demand is pushed by social distancing restrictions, COVID-19 may have a long-term effect on people's travel behaviour. The following figure shows the image from a retracted epidemiological study from

Wuhan. The researchers show through CCTV evidence on how one individual infected nine others in a public bus on January 22nd.

Citing higher risk of community spread of the virus in buses, many city/state/national governments issued guidelines for public transport operators. These included various instructions from dispensing tickets to disinfecting seats. With increasing restrictions imposed by governments, both public transport services and their demand have been badly hit. Moovit released a report showing the drastic fall in public transport usage in many cities.

Even after the situation normalises, the perception of risk associated with crowded areas could lead to shift in preferences towards personal travel modes. That is, people may avoid using public transport modes to avoid crowds. People may also avoid shared mobility modes like autorickshaws, micro-transit vans, e-rickshaws etc. The drivers employed in app-based taxi services are economically suffering in the short term due to the COVID lockdown. However, it cannot be said if these modes may face long term economic effects in terms of reduced travel demand.



India, one of the fastest growing economies in the world, is achieving a growth rate of 7.5% per annum. With a growing population too, the country is working hard to transform itself over the next few decades. Improving public transportation is high

on the agenda and **Jaspal Singh, Head of the UITP India Office**, writes that although private-vehicle ownership in India is growing and therefore causing major congestion problems in cities, there are however many plans to revamp bus systems and invest in metro networks. The cities of this diverse country and its urban population play an important role in the growth of the country. As per the 2011 census, 31.2% of India's population (377 million) is living in urban areas. As the UN estimates, these numbers will grow to 40% (590 million) by 2030 and 58% (875 million) by 2050. While only 30% of the total population live in urban areas, approximately 63% of India's Gross Domestic Product (GDP) is contributed by those urban areas.

ROAD

As per 2017 estimates, the total road length in India is 5,603,293 km (3,481,725 mi) making the Indian road network the second largest road network in the world after the United States. At 0.66 km of highway per square kilometre of land the density of India's highway network is higher than that of the United States (0.65) and far higher than that of China's (0.16) or Brazil's (0.20).

India has a network of National Highways connecting all the major cities and state capitals, forming the economic backbone of the country. As of 2013, India has a total of 66,754 km (41,479 mi) of National Highways, of which 1,205 km (749 mi) are classified as expressways. Although India has large network of four or more lane highways of international quality standards, but without access control (entry/exit control), they are not called as expressways but simply as highways.

As per the National Highways Authority of India, about 65% of freight and 80% passenger traffic is carried by the roads. The National Highways carry about 40% of total road traffic, though only about 2% of the road network is covered by these roads. Average growth of the number of vehicles has been around 10.16% per annum over recent years.

BUS

Buses are an important means of public transport in India. Due to this social significance, urban bus transport is often owned and operated by public agencies, and most state governments operate bus services through a State Road Transport Corporation. These corporations have proven extremely useful in connecting

villages and towns across the country. Alongside the public companies there are many private bus fleets: As of 2012, there were 131,800 publicly owned buses in India, but 1,544,700 buses owned by private companies.

However, the share of buses is negligible in most Indian cities as compared to personalised vehicles, and two-wheelers and cars account for more than 80 percent of the vehicle population in most large cities.

Motor vehicles

Two-wheelers

Motorised two-wheeler vehicles like scooters motorcycles and mopeds are very popular mode of transport due to their fuel efficiency and ease of use in congested roads or streets. The number of two-wheelers sold is several times to that of cars. There were 47.5 million powered two-wheelers in India in 2003 compared with just 8.6 million cars.

Introduction to Road Transport System in India

Road transport is the second important mode of transport in India. It covers every corner of the country which the railway transport even could not cover. Road transport provides the basic infrastructural facilities to both the agricultural and industrial sector of the country. Moreover, construction and maintenance of roads can generate huge employment opportunities as it is twice as labour intensive as agriculture or housing. Indian roads carry 85 per cent of the passengers and 70 per cent of the freight traffic of the country. The highways, make up only 2 per cent of the road network by length, but carry 40 per cent of this traffic.

Types of Indian roads are classified broadly into following four categorie

(a) National Highways

National Highways are considered as main arterial routes as it connects big cities, industrial centres, major ports and different states of the country. Total length of National Highways is nearly 79.1 thousand kms in 2012-13 and caters to about 45 per cent of the total road transport demand. The construction and maintenance of national highways of the country are the responsibility of the central government.

(b) State Highways

State highways are the important roads which are connecting district headquarter and important towns and cities with the capital and National Highways. Construction and the maintenance of state highways are the responsibility of the State Government. Total length of State Highways in 2012-13 was 168.3 thousand kms.

(c) District Roads

District roads connect production centres and markets. It also connects main roads to the interior places of each and every district. Major portion of this road is unmetalled and are, therefore, un-motor able during the rainy season. Total length of major district roads was 470.0 thousand km in 2004-05.

(d) Village Roads

Village roads of India are connecting villages with one another and also connect the village roads with the nearest district roads, highway, railway stations or river ghat. Village roads may be broadly of two types—Classified and Unclassified. Unclassified Village roads are normally non-metalled roads. Total length of rural roads was 2,650.0 thousand km in 2004-05.

In India, total length of roads has increased from 4 lakh kms in 1950-51 to nearly 49.49 lakh kms in 2012-13 out of which 27.42 lakh kms is surfaced and the rest 22.07 lakhs kms is un-surfaced. This shows that annual growth rate of this increase in road length was 4.5 per cent.

National Highways which have a total length of nearly 66,800 kms constitute only 1.6 per cent of the total road system of the country. About 64 per cent of the villages of the country have a rural road network and the rest 36 per cent have no road connections. Moreover, over 65 per cent of our villages do not have an all weather roads.

At present, India has a total road network covering 4.69 million kilometers which makes it one of the largest road networks in the world. The country's road network

consists of National Highways, State Highways, Major District Roads, Other District Roads and Village Roads.

The road network comprises 79,100 km of National Highways, 1,68,300 km. of State Highways 4,70,000 km of Major District Roads and about 26,50,000 km of other District and Rural Roads.

Out of the total length of National Highways, about 24 per cent is single lane / intermediate lane, about 51 per cent is standard 2- lane and balance 25 per cent is 4-lane width or more. Though National Highways account for only 2 per cent of the total length of roads, they account for about 40 per cent of the total traffic.

It is estimated that road traffic in India accounts for 80 per cent of passenger traffic and 60 per cent of goods traffic in the country. In future, 87 per cent of the passenger traffic and 65 per cent of the goods traffic is expected to be met through road transport system.

In our Five Year Plans, a good amount of fund was allocated for the development of roads. During the first three plans and the Annual Plans, nearly Rs 1,104 crore was spent on the heads of road development. Again the Fourth, Fifth, Sixth and Seventh Plan had allocated funds worth Rs 862 crore, Rs 1,348 crore, Rs 3,439 crore and Rs 5,200 crore respectively for the development of roads in the country.

1.2 INDUSTRY PROFILE

India has the second largest road network in the world, spanning a total of 5.89 million kilometres (kms). This road network transports 64.5% of all goods in the country and 90% of India's total passenger traffic uses road network to commute. Road transportation has gradually increased over the years with improvement in connectivity between cities, towns and villages in the country.

In India, sale of automobiles and movement of freight by roads is growing at a rapid rate.

India has witnessed 112 completed road projects via Public –Private Partnership Model and 150 projects are being completed. Transportation industry contributed roughly 6.3% of GDP and is majorly dominated by road sector. More than 50% of freight and 90% of passenger traffic are handled by road

In March 2007, UITP opened its first Indian office in Bangalore and in December 2019 in New Delhi. The prime objective of the Indian office is to better address the specific needs of regional members as well as the Indian public transport sector and its stakeholders.

Furthermore, UITP in India aims to offer assistance and services to public transport organisations in the country through access to knowledge on national and international technical and policy developments in urban mobility, peer reviews, projects and studies on specific issues of concern.

UITP supports the public transport sector and its development in India by advocacy, knowledge sharing, organising technical trainings, data collection, international benchmarking, etc. There are over 50 UITP members in India.

Indian roads carry 85 per cent of the passenger and 80 per cent of the freight traffic of the country.

PUBLIC TRANSPORT

Public transportation industry comprises companies, establishments, corporations and agencies that primarily operate in regional and local passenger transportation systems with regular routes and fixed schedules. They are buses, trams, trains, and metros of that kind. Since an important urban infrastructure serves and helps most people living there, the urban public transportation system includes public

buses, electric buses, subways, taxis, auto rickshaws, ferries and other public transport vehicles. The mission of public transportation reflects its important position in a complex transportation network. Public transportation has the potential to provide low-cost and safety mobility to citizens, to facilitate a healthy environment and strong metropolitan areas by reducing traffic congestion and pollution. The rapid rate of economic reform has been accompanied accelerated urbanization which is adding to the challenges facing the urban public transportation sector.

Since the urban population and the economy is growing, the demand for public transport services is growing as well and at an incredible rapid rate, statistically at an estimated rate of 4% per year. The global transportation service industry plays a vital role in the global economy, with all types of business sectors reliant on transportation services to distribute their goods and access raw materials. Information and communication technologies are expected to continue to prove an important contributor and a key to industry performance over the coming years. All the companies in the transportation industry compete on grounds of efficiency and reliability, with customers' main concern remaining timely pick-up and delivery. The main priorities transportation services providers that are expected to continue to focus on to remain competitive are security, reliability, customer care and speed of distribution. On an average, the fare revenue earned by the major urban transportation systems makes up about a third of spending needs, so the majority Of costs are met by public sector subsidies.

PUBLIC TRANSPORT CURRENT TRENDS

The public transportation industry has a high level of barriers to entry. State and local governments are responsible for the provision of public transportation systems. Nearly all systems within the industry are government owned, although in some instances governments may tender out services to the private sector, although outsourcing is currently minimal. In the last five years, the huge demand for public transportation has been driven by rising fuel costs and more people moving away from their rural areas into urban centers, forcing many people to switch from commuting with their cars to cheaper public transportation. Additionally, higher government funding has allowed for the expansion of energy

efficient transportation services. Over the next five years, growth is expected to improve as more public transit expansion programs are expected to be introduced. In recognition of the huge problems facing the industry, the desire for a better future, the vision of a new paradigm, government has decided to break monopoly and reform the state-owned public transport enterprises, inviting domestic and foreign investors to join the franchised operation of urban public traffic. The public transportation industry across the world is on the threshold of a badly needed change.

INNOVATIVE TECHNOLOGY

IT solutions are important for public transport systems and information is becoming critical for any service planning. The key factors such as passenger demand; journey demand; service hour; and service frequency have great impact on the expenditure and revenue of any authority or operator. IT tools can also help to refine processes and improve efficiency. Smart transportation systems should have fleet management, ticketing, security surveillance, traffic management and real-time passenger information.

The recent 'Policy Road Map for City Bus Systems in India'⁶ study identified that most of the city's bus operators are still lagging behind in the implementation of an IT system. The survey revealed that nine out of 12 cities have implemented a vehicle tracking system and 11 out of 12 have implemented electronic ticketing machines (ETMs). However, no cities have yet implemented 'planning and scheduling' or 'depot management' systems; with the majority using manual systems for such operations. The availability of real-time information is equally important for commuters to plan their journey. In the absence of good quality data, commuters aren't able to obtain accurate service information. However, there are some third party mobile app providers that provide offline information to users such as *Trafi* and *Moovit*. Smart ticketing has been slow to gain popularity in India. All metro systems have implemented smart ticketing solutions for its 'closed' environment; Delhi Metro sells approximately 16,000 smartcards a day and 1.8 million commuters use the card daily. However, the smart ticketing systems are not yet integrated with the bus system. The federal government did make plans to introduce a Smart National Common Mobility Card (NCMC) to enable seamless travel using different modes of transport across the country as well as having retail purchasing benefits. However, the initiative did not take off. In July 2015 the

government established a committee to recommend an inter-operable smartcard. In June 2016 Bengaluru Metropolitan Transport Corporation (BMTc) became the first city in India to launch the Axis Bank BMTc Smart Card – an open loop EMV contactless smartcard. However, the system is not integrated with other modes such as metro. Mumbai is another example that has various modes of public transport including suburban railway lines, metro, buses, taxis and auto-rickshaws. The Mumbai Metropolitan Region Development Authority (MMRDA) has appointed London's Transport for London (TfL) to prepare a detailed plan for an integrated ticketing system in the Mumbai Metropolitan Region. An integrated system is planned to be rolled-out by 2018.

NEW MEASURES TO STRENGTHEN PUBLIC TRANSPORT

The federal government has recently ratified COP21 (Conference of Parties) agreement in Paris, France on 2 October 2016. India currently accounts for approximately 4.5% of global greenhouse gas emissions. Although the key focus is on clean energy generation, the federal government is also looking to reduce emissions from the transportation sector.

1.3 NEED FOR THE STUDY

The roadway transportation management towards public. In India one of the major sector is transports and one of the main transport is roadway transport and the novel corona virus effects globally very high and it also affects transport sectors more. During covid-19 the road way public transportation effects highly. This study measures how transportation effect public daily routine work and how much struggle they faced due to less transportation. Also what are the precautions they doing when they travel on covid situation.

1.4 SCOPE OF THE STUDY

This study focuses on during covid the public transportation is less so how public effects on it. What are the other source they can done. Also how they manage their routine things like food health. The study also conduct the economic wise how transportation effects on covid. This study comes up with the suggestions that helps to know the impacts of road way transportation towards public.

1.5 OBJECTIVES OF THE STUDY

1.5.1 Primary Objective

- To analyze the roadway public transportation during covid 19.

1.5.2 Secondary Objective

- To collect data from public and workers on how the pandemic affects their routine work.
- To collect data from public who are travelling in road way transportation during this pandemic.
- Journals and magazines

1.6 LIMITATIONS OF THE STUDY

- The study is on Road way transportation management towards general public during covid 19.
- In this study, vast area is not covered in Chennai region.
- Some of the respondents did not take time to fill the questionnaire

CHAPTER - 2

REVIEW OF LITERATURE

2.1 REVIEW OF LITERATURE

Accid Anal Prev (2020), In this paper examines the World Health Organization declared COVID-19 a world-wide pandemic. Countries introduced public health measures to contain and reduce its spread. These measures included closures of educational institutions, non-essential businesses, events and activities, as well as working from and staying at home requirements. These measures have led to an economic downturn of unprecedented proportions. Generally, as economic activity declines, travel decreases and drivers are exposed to a lower risk of collisions. However, research on previous economic downturns suggests economic downturns differentially affect driver behaviours and situations. COVID-19 pandemic effects on road safety are currently unknown.

Ashish Verma, R.Jayakrishnan, S.Velmurugan(2020),This research paper study about Fearing crowd infections, commuters prefer travelling in private modes like two-wheelers. Cities like Delhi, that resumed services nearly four weeks ago, observed less ridership than the allowed 20 passengers per bus, despite the limited frequencies on many routes. Although bus crowding is seen in some cities such as Mumbai, it is temporary and due to a lack of alternatives. A significant drop in public transport ridership can be expected for months after resumption, based on opinion surveys. That means measures are needed to gain the public's confidence in mass transport modes, to avoid a significant modal shift to road traffic.

EeshanBhaduri ManojB.S. ZiaWadud Arkopal K. Goswamia Charisma F.Choudhury (2020)In this paper,a case study of how COVID-19 pandemic has resulted in unprecedented changes in the activity patterns and travel behaviour around the world. Some of these behavioural changes are in response to restrictive measures imposed by the Government (e.g. full or partial lock-downs), while others are driven by perceptions of own safety and/or commitment to slow down the spread (e.g. during the preceding and following period of a lock-down). Travel behaviour amidst the stricter of these measures is quite straightforward to predict as people have very limited choices, but it is more challenging to predict

the behavioural changes in the absence of restrictive measures. The limited research so far has demonstrated that different socio-demographic groups of different countries have changed travel behaviour in response to COVID-19 in different ways. However, no studies to date have either (a) investigated the changes in travel behaviour in the context of the Global South, or (b) modelled the relationship between changes in transport mode usage and traveller characteristics in order to quantify the associated heterogeneity.

Emmanuel Mogaji (2020) In this research paper study about The growing number of studies on the impact of COVID-19 is often discussed in the context of developed countries, highlighting a gap in the understanding of how the pandemic is impacting developing countries. This theoretical commentary focuses on the present and long-term impact of COVID-19 on transportation in Lagos State, Nigeria. The paper recognises the effect on transportation in emerging economies, where lockdowns and restrictions on movement may be ineffective, a state with high population density, poor transportation infrastructure and a large informal economy. Adopting the 'avoid-shift-improve' framework, this paper presents practical implications for public and private sector policymakers, as they navigate this precarious time and chart a new path for individuals and Nigeria.

Erik Jenelius(2020) The paper analyses the impacts of COVID-19 on daily public transport ridership in the three most populated regions of Sweden (Stockholm, Västra Götaland and Skane) during spring 2020. The analysis breaks down the overall ridership with respect to ticket types, youths and seniors, and transport modes based on ticket validations, sales and passenger counts data. By utilizing disaggregate ticket validation data with consistent card ids we further investigate to what extent fewer people travelled, or each person travelled less, during the pandemic. The decrease in public transport ridership (40%–60% across regions) was severe compared with other transport modes.

Hongming Dong,(2021) In this study about The influence of the COVID-19 pandemic will linger for an extended period, although it is under control and public transport is gradually resuming its operations. However, there is limited understanding of passengers' construal regarding this public health crisis and their perceptions of safety and feelings of satisfaction toward public transport after suffering through the spread of such an infectious disease. Therefore, the aim of

this research is to understand passengers' psychological responses to the pandemic over time in terms of their emotional arousal and mental construal, as public transport begins to resume its operations with the pandemic almost entirely contained.

J.Krishna Naik(2020)In this paper analyses During the Covid-19 outbreak,(2020) the entire world is dealing with a myriad of new challenges. Businesses and all other activities across the globe have been adversely affected which in return is affecting the economy. The demand-supply gaps are clearly visible in every sector. The effect of Covid-19 can be seen in the usage of public transport also. Trade all across the globe is plunged as Covid-19 upends the global economy.

Jia-TeWeia Yun-XiaLiub Yu-ChenZhu(2020) In this research paper study about The ongoing pandemic of 2019 novel coronavirus disease (COVID-19) is challenging global public health response system. We aim to identify the risk factors for the transmission of COVID-19 using data on mainland China. We estimated attack rate (AR) at county level. Logistic regression was used to explore the role of transportation in the nationwide spread. Generalized additive model and stratified linear mixed-effects model were developed to identify the effects of multiple meteorological factors on local transmission. The ARs in affected counties ranged from 0.6 to 9750.4 per million persons, with a median of 8.8.

Jizhou Huang, ying (2020) This research paper about The constrained outbreak of COVID-19 in Mainland China has recently been regarded as a successful example of fighting this highly contagious virus. These measures can, of course, effectively control the spread of the COVID-19 pandemic. To be specific, we conduct data-driven analysis on transportation-related behaviors during the pandemic from the perspectives of 1) means of transportation, 2) type of visited venues, 3) check-in time of venues, 4) preference on "origin-destination" distance, and 5) "origin-transportation-destination" patterns. For each topic, we also give our specific insights and policy-making suggestions. Given that the COVID-19 pandemic is still spreading in more than 200 overseas countries, infecting millions of people worldwide, the insights and suggestions provided here may help fight COVID-19.

JonasDe Vos (2020) This paper analyses The spread of the COVID-19 virus has resulted in unprecedented measures restricting travel and activity participation in many countries. Social distancing, i.e., reducing interactions between individuals in order to slow down the spread of the virus, has become the new norm. In this viewpoint I will discuss the potential implications of social distancing on daily travel patterns. Avoiding social contact might completely change the number and types of out-of-home activities people perform, and how people reach these activities. It can be expected that the demand for travel will reduce and that people will travel less by public transport. Social distancing might negatively affect subjective well-being and health status, as it might result in social isolation and limited physical activity.

Julia Bird Sebastian Kriticos Nick Tsivanidis (2020) This research paper study about Impact of COVID-19 on public transport. Since the onset of the COVID-19 pandemic, cities across the world have had to enforce massive restrictions on public transport in order to limit transmission of the virus and ensure safe passage of key workers during the emergency response. **Addis Ababa, Lagos, and Johannesburg** are just a few of the major cities where public buses have had to run at less than 60% of normal capacity during lockdown. Similar restrictions in Brazil are estimated to have cost bus operators as much as USD188 million in daily fare losses, according to the National Association of Urban Transport.

Junyi zhang, Yoshitsugu Hayashi (2020) in this paper Lawrence Impacts of coronavirus disease 2019 (COVID-19) on the transport sector and the corresponding policy measures are becoming widely investigated. Considering the various uncertainties and unknowns about this virus and its impacts (especially long-term impacts), it is critical to understand opinions and suggestions from experts within the transport sector and related planning fields. To date, however, there is no study that fills this gap in a comprehensive way.

Karl Kim (2021) In this paper shows COVID-19 impacts on transportation and society continues to evolve and progress. As of my writing today, across the world, more than 67.2 million people have been infected with SARS-CoV-2 and more than 1.5 million people have died from the disease – see covid19.who.int. The

United States leads the world with over 14.5 million cases, followed by India (9.7 million) and Brazil (6.6 million). With more than 3,000 daily cases in the U.S., the impacts of the pandemic persist. In addition to loss of life and illness, there have been significant economic losses, business closures, job losses, and widespread disruption of educational, religious, cultural, and social activities, with resulting negative impacts to our quality of life. The pandemic has resulted in decreased travel by ground, air and water transportation modes.

Lucy Budd and Stephen (2020) In this research paper study about Ison The unprecedented global shutdown that resulted from the COVID pandemic presents an opportunity to reconfigure future transport policy and practice for the benefit of the global environment and individual citizens alike. Before COVID, much of the emphasis in transport policy was on demand management, 'smart' technological interventions and sustainable mobility. *Transport* to help inform and shape transport policy and practice responses to COVID. The novelty of this proposal lies in the fact that it incorporates not only environmental considerations with respect to sustainability but also encompasses considerations of individual and community health and wellbeing. Moreover, it stresses the role of the individual as a responsible autonomous actor in delivering socially desired transport outcomes.

Mr Aravind Harikumar(2020) The researchers shown how one individual infected nine others in a public bus on January 22nd. Citing higher risk of community spread of the virus in buses, many city/state/national governments issued guidelines for public transport operators. People may also avoid shared mobility modes like autorickshaws, micro-transit vans, e-rickshaws etc. The drivers employed in app-based taxi services are economically suffering in the short term due to the COVID lockdown. However, it cannot be said if these modes may face long term economic effects in terms of reduced travel demand.

Muhammad Abdulla , Charitha Diasb, Deepti Muleyb, Md. Shahinc(2020) This paper shows Various measures were recommended or imposed by the governments to control the spread of COVID-19. Travel behaviors are significantly influenced due to such measures. However, people have various travel needs ranging from grocery shopping to work. This study examines the changes that occurred in travel behavior due to the COVID-19 pandemic. Data were collected

through an online questionnaire survey that included questions on trip purpose, mode choice, distance traveled, and frequency of trips before and during COVID-19. 1203 responses were collected from various countries around the world.

Nan Zhang, WeiJia,(2020) COVID-19 threatens the world. Social distancing is a significant factor in determining the spread of this disease, and social distancing is strongly affected by the local travel behaviour of people in large cities. In this study, we analysed the changes in the local travel behaviour of various population groups in Hong Kong, between 1 January and 31 March 2020, by using second-by-second smartcard data obtained from the Mass Transit Railway Corporation (MTRC) system. Due to the pandemic, local travel volume decreased by 43%, 49% and 59% during weekdays, Saturdays and Sundays, respectively. The local travel volumes of adults, children, students and senior citizens decreased by 42%, 86%, 73% and 48%, respectively.

Oded Cats (2020) The COVID-19 pandemic poses a great challenge for contemporary public transportation worldwide, resulting from an unprecedented decline in demand and revenue. In this paper, we synthesize the state-of-the-art, up to early June 2020, on key developments regarding public transportation and the COVID-19 pandemic, including the different responses adopted by governments and public transportation agencies around the world, and the research needs pertaining to critical issues that minimize contagion risk in public transportation in the so-called post-lockdown phase. While attempts at adherence to physical distancing (which challenges the very concept of mass public transportation) are looming in several countries, the latest research shows that for closed environments such as public transportation vehicles, the proper use of face masks has significantly reduced the probability of contagion. The economic and social effects of the COVID-19 outbreak in public transportation extend beyond service performance and health risks to financial viability, social equity, and sustainable mobility.

Paulamani Dam, Sanjib Mandal, Rittick Mondal,Pandemics(2020) are more than just pathological medical phenomenon. Pandemics appear with various challenges and entail other devastating situations. Ever since the World War II, the

world did not face any extreme challenge as threatening as COVID-19. SARS-CoV-2 (as named by ICTV) possesses a high basic reproduction number (R_0) and has confirmed routes of droplet-borne air transmission and contagious spread from one to another human. Due to no prior exposure to this pathogen (COVID 19) and unavailability of vaccines of the same, every individual across the world has become vulnerably susceptible to SARS-CoV-2. Hence, the World Health Organization (WHO) and healthcare authorities of all countries are relentlessly emphasizing on practicing basic personal hygiene, the use of face-masks and personal protective equipments (PPEs), social distancing and self-quarantine as protective and preventive measure against COVID-19. Even though the practice of intermittent lockdown is helping countries to flatten the epidemic curve, but its effect is not providing a satisfactory result. The gravity of the pandemic has taken toll on economy, transport industry, education, and people's psychosomatic well-being.

Sube singh, Ramesh Kumar, Rohith Panchal, Manoj Kumar Tiwari(2020) An outbreak of deadly COVID-19 virus has not only taken the lives of people but also severely crippled the economy. Due to strict lockdown, the manufacturing and logistics activities have been suspended, and it has affected the demand and supply of various products as a result of restrictions imposed on shopkeepers and retailers. Impacts of COVID-19 are observed ubiquitously in every type of units from different sectors. In this study, a simulation model of the public distribution system (PDS) network is developed with three different scenarios to demonstrate disruptions in the food supply chain. Our proposed simulation model can help in developing a resilient and responsive food supply chain to match the varying demand, and then further assist in providing decision-making support for rerouting the vehicles as per travel restrictions in areas.

Velmurugan.S, MuktiAdvani, PadmaS(2020) This report discusses the implications of various phases of lockdown as well as unlocking phases aimed at the gradual ramp up of the economy during the ongoing COVID-19 pandemic in India. In this regard, the consequences and changes in the travel behavior of commuters by air, rail and various forms of road based transport are discussed. The report also presents an overview of the impact of the pandemic on freight traffic as well as its impact on road safety. To derive the related findings, the

relevant studies carried out across India by different organizations (including CSIR - CRRI) during the ongoing pandemic have been briefly discussed and compared with pre-COVID-19 scenario. This is primarily aimed at improving the transport scenario to a sustainable level post COVID which is expected to be reached earliest by the middle of 2021.

Yasir Ali, Anshuman Sharma, Md. Mazharul Haque(2020) People use various modes for travelling and interact with each other during their trips for business, shopping, education and tourism. The travel increases the risk of spreading communicable diseases and may escalate the spreading rate at a level that can make an endemic to become a pandemic. On the other hand, the measures, for example, lockdown, taken by governments to control the pandemic, negatively impact travels and, in the worst case, bring the transportation system to a standstill. Thus, it is important to understand this relationship between a pandemic and transportation to control the spread of a disease through transportation and to suppress the negative impacts of that disease on transportation. This book chapter explores this relationship using the COVID-19 pandemic as a case study. Firstly, the chapter highlights the role of transportation in spreading any disease, including COVID-19. Secondly, it summarizes the immediate impacts of COVID-19 on transportation and puts forward ways to recover transport systems after a pandemic. Thirdly, the chapter provides insights into how policymakers can use the scenarios like lockdown to reshape transport systems. Finally, this chapter suggests some proactive approaches that transport agencies can adopt during and after a pandemic.

CHAPTER - 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

In this study, Descriptive Research Design is used in research topic.

3.2 SAMPLING TECHNIQUE

The method of sampling adopted to conduct survey is Convenience Sampling Method. The area of research is concentrated on General public in Chennai.

3.3 SOURCES OF DATA

3.3.1 Primary Data

The primary data for this study is collected through questionnaire consisting of multiple choice questions.

3.3.2 Secondary Data

The secondary data is collected by referring by websites, journals, articles and research paper.

3.4 STRUCTURE OF QUESTIONNAIRE

Multiple choice questions and Likert's scale questions.

3.5 SAMPLE SIZE

The sample size taken for this study is 120.

3.6 PERIOD OF STUDY

The period of study is carried out from January 2021 to March 2021 which is three months of study.

3.7 ANALYTICAL TOOLS

- Percentage Analysis.
- Correlation.
- ANOVA.
- Independent T-test.

CHAPTER- 4

DATA ANALYSIS AND INTERPRETATION

4.1 PERCENTAGE ANALYSIS:

TABLE 4.1.1

TABLE SHOWING GENDER OF THE RESPONDENTS

PARTICULARS	NO.OF RESPONDENTS	RESPONDENTS
Male	79	34.17
Female	41	65.83
Total	120	100.0

Source: Primary data

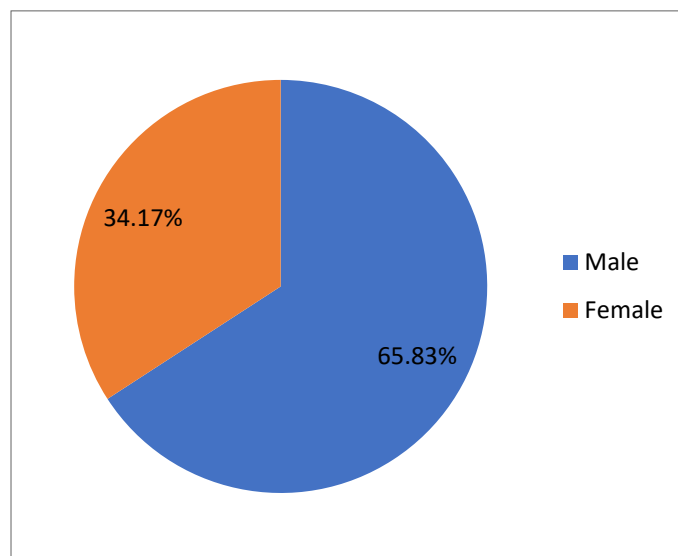


CHART NO 4.1.1: CHART SHOWING GENDER OF THE RESPONDENTS

INTERPRETATION:

From the above table it is interpreted that 65.83% of the respondents are males And 34.17% of the respondents are females.

INFERENCE:

Majority of 65.83% respondents are male.

TABLE 4.1.2

TABLE SHOWING AGE OF THE RESPONDENTS

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Below 25	46	38.33
25 - 35 years	37	30.83
35 - 45 years	26	21.67
Above 45 years	11	9.17
Total	120	100.0

Source: Primary data

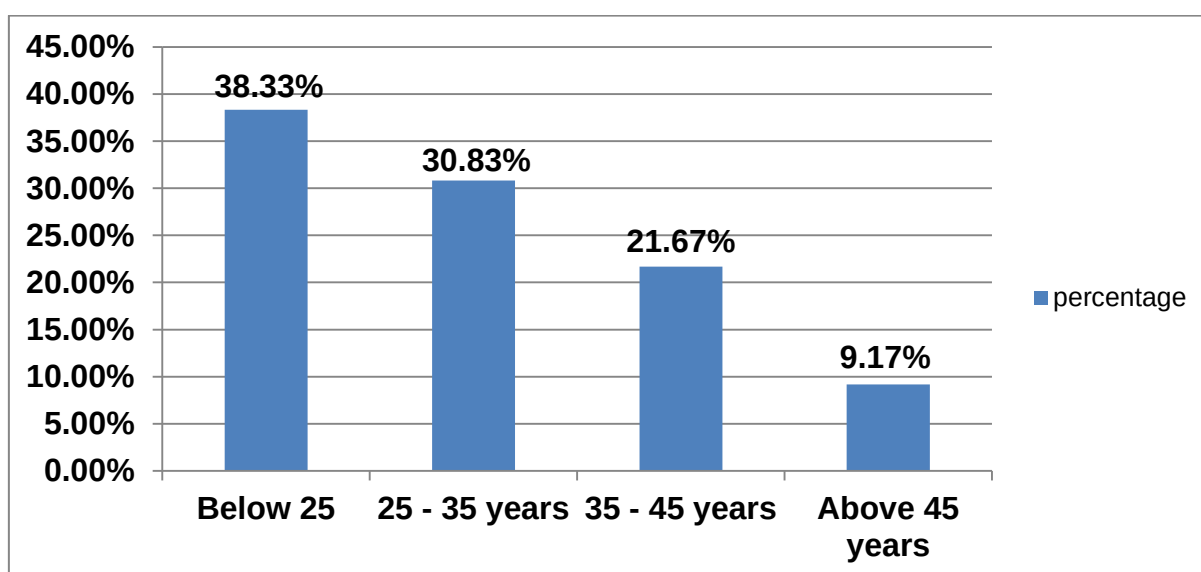


CHART NO 4.1.2: CHART SHOWING AGE OF THE RESPONDENTS

INTERPRETATION:

From the above table it is interpreted that 38.33% of the respondents are below 25 years, 30.83% of the respondents are between 25 - 35 years, 21.67% of the respondents are between 35 – 45 years, 9.17% of the respondents are between above 45 years.

INFERENCE:

Majority of 38.33% respondents are between Below 25 years.

Table 4.1.3

TABLE SHOWING MARITAL STATUS OF THE RESPONDENTS

PATICULARS	NO.OF RESPONDENTS	PERCENTAGE
Married	53	44.17
Unmarried	67	55.83
TOTAL	120	100.0

Source: Primary data

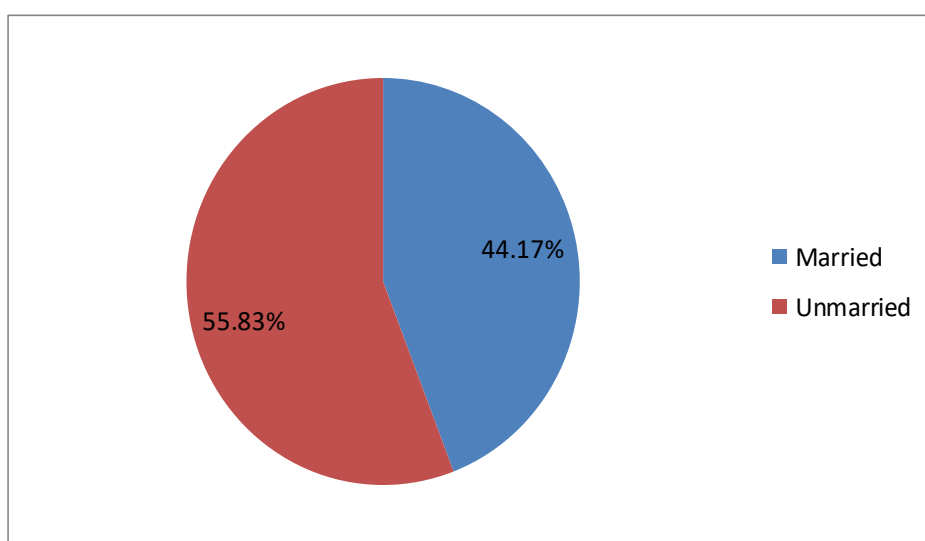


CHART NO 4.1.3: CHART SHOWING MARITAL STATUS OF THE RESPONDENTS

INTERPRETATION:

From the above table it is interpreted that 53.72% of the respondents are Married
And 46.28% of the respondents are Unmarried.

INFERENCE:

Majority of 55.83% respondents are Married.

Table 4.1.4

TABLE SHOWING QUALIFICATIONS OF THE RESPONDENTS

PARTICULARS	NO.OF RESPONDENTS	PERCENTAGE
High school	11	9.17
Under Graduate	63	52.50
Post Graduate	37	30.83
PHD & Above	3	2.50
Other	6	5.00
TOTAL	120	100.0

Source: Primary data

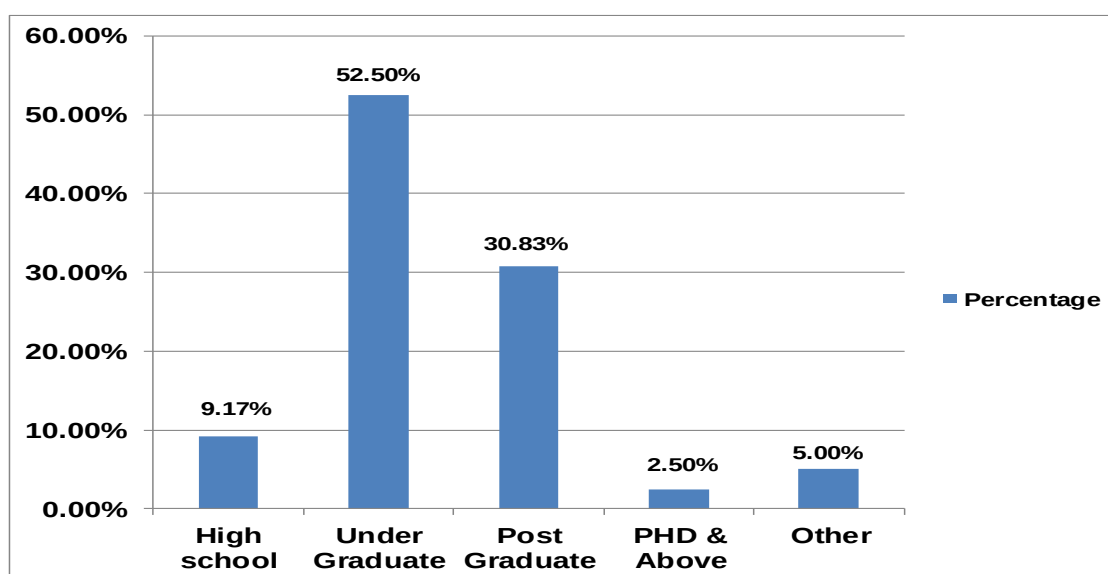


CHART NO 4.1.4: CHART SHOWING QUALIFICATION OF THE RESPONDENTS

INTERPRETATION:

From the above table it is interpreted that 9.17% of the respondents has completed higher secondary, 52.50% of the respondents has completed diploma, 30.83% of the respondents are under graduates, 2.50% of the respondents are post graduates and 5.00% of the respondents are of other qualifications.

INFERENCE:

Majority of 52.50 respondents are under graduates.

Table 4.1.5

TABLE SHOWING OCCUPATION OF THE RESPONDENTS

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Student	39	32.50
Employee	54	45.00
Self Employee	24	20.00
Others	3	2.50
TOTAL	120	100.0

Source: Primary data

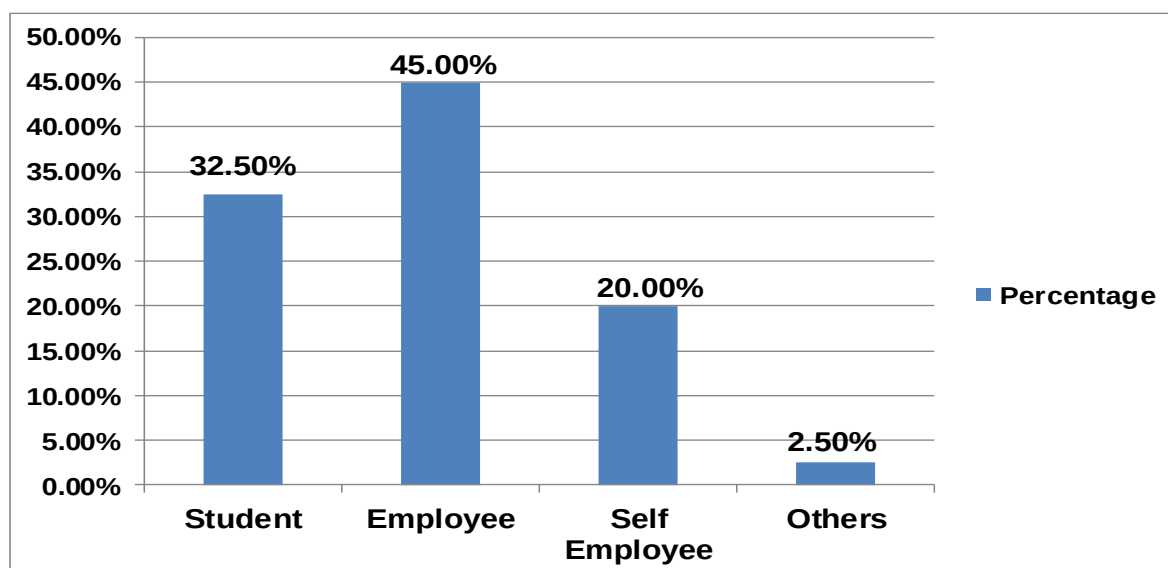


CHART NO 4.1.5: CHART SHOWING OCCUPATION OF THE RESPONDENTS

INTERPRETATION:

From the above table it is interpreted that 32.50% of the respondents are student, 45.00% of the respondents are Employee, 20.00% of the respondents are Self employee, 2.50% of the respondents are others.

INFERENCE:

Majority of 45.00% respondents are Employees.

Table 4.1.6

TABLE SHOWING TRANSPORTATION IS SAFE TO TRAVEL IN COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	40	33.33
Agree	33	27.50
Neutral	23	21.67
Disagree	15	12.50
Strongly disagree	5	4.17
Total	120	100.0

Source: Primary data

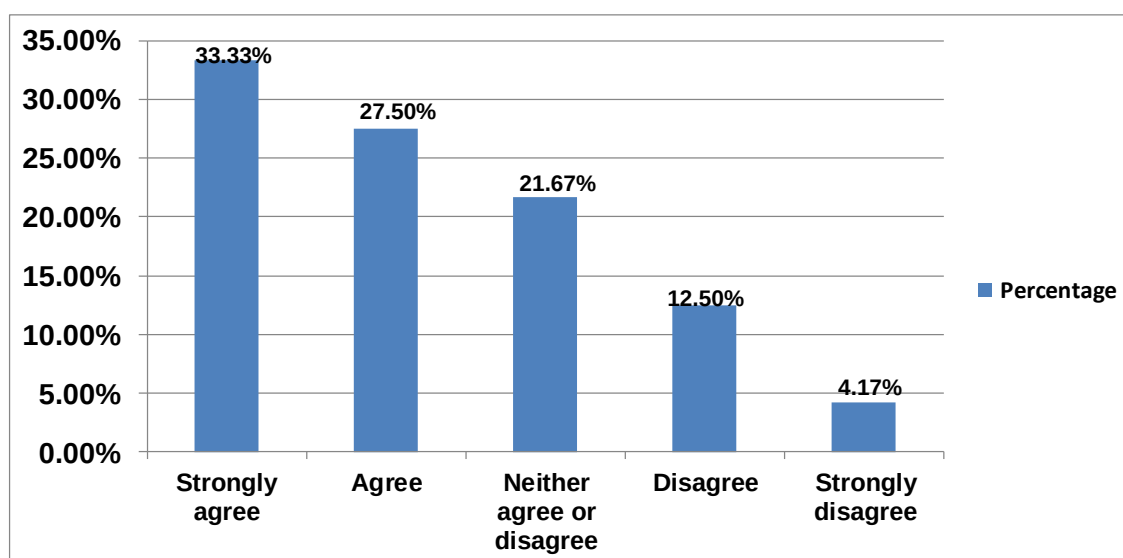


CHART NO 4.1.6: CHART SHOWING TRANSPORTATION IS SAFE TO TRAVEL IN COVID 19

INTERPRETATION:

From the above table it is interpreted that 33.33% of the respondents strongly agree, 27.50% of the respondents agree, 21.67% of the respondents Neither agree or disagree 12.50% of the respondents disagree and 4.17% of the respondents strongly disagree.

INFERENCE:

Majority of 33.33% respondents Strongly agree that transportation is safe to travel in covid 19.

Table 4.1.7

TABLE SHOWING TRANSPORTATION IS IMPORTANT ON COVID

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	26	21.67
Agree	61	50.83
Neutral	18	15.00
Disagree	9	7.50
Strongly disagree	4	3.33
Total	120	100.0

Source: Primary data

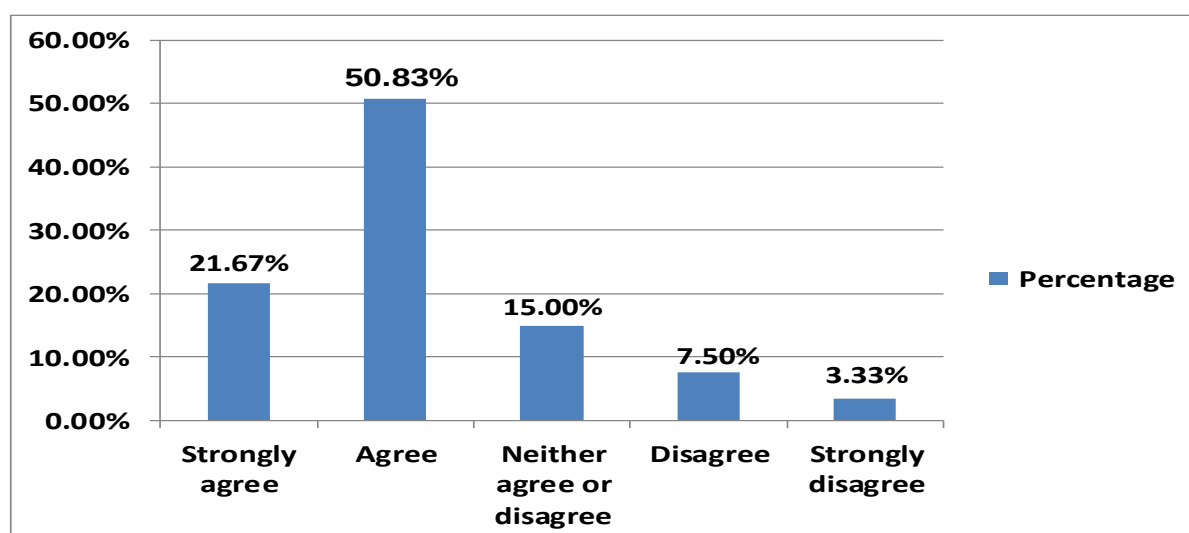


CHART NO 4.1.7: CHART SHOWING TRANSPORTATION IS SAFE TO TRAVEL IN COVID 19

INTERPRETATION:

From the above table it is interpreted that 21.67% of the respondents strongly agree, 50.83% of the respondents agree, 15.00% of the respondents Neither agree or disagree, 7.50% of the respondents disagree and 3.33% of the respondents strongly disagree.

INFERENCE:

Majority of 50.83% respondents agree or that transportation is safe to travel in covid 19.

Table 4.1.8

TABLE SHOWING MANAGE YOUR HEALTH AND SAFETY

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	29	24.17
Agree	56	46.67
Neutral	19	15.83
Disagree	10	8.33
Strongly disagree	4	3.33
Total	120	100.0

Source: Primary data

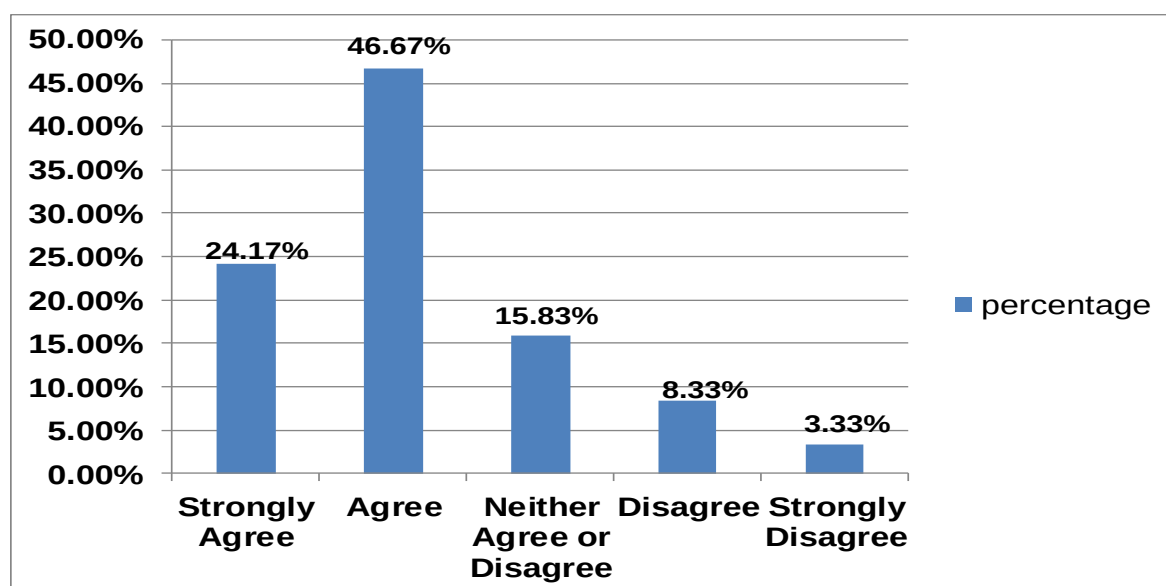


CHART NO 4.1.8: CHART SHOWING DO YOU MANAGE YOUR HEALTH AND SAFETY

INTERPRETATION:

From the above table it is interpreted that 24.17% of the respondents strongly agree, 46.67% of the respondents agree, 15.83% of the respondents Neither agree or disagree, 8.33% of the respondents disagree and 3.33% of the respondents strongly disagree.

INFERENCE:

Majority of 46.67% respondents Agree that manage your health and safety.

Table4.1.9

TABLE SHOWING IS IT IMPORTANT TO WEAR SAFETY EQUIPMENTS WHEN YOU TRAVEL

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	26	21.67
Agree	54	45.00
Neutral	23	19.17
Disagree	9	7.50
Strongly disagree	6	5.00
Total	120	100.0

Source: Primary data

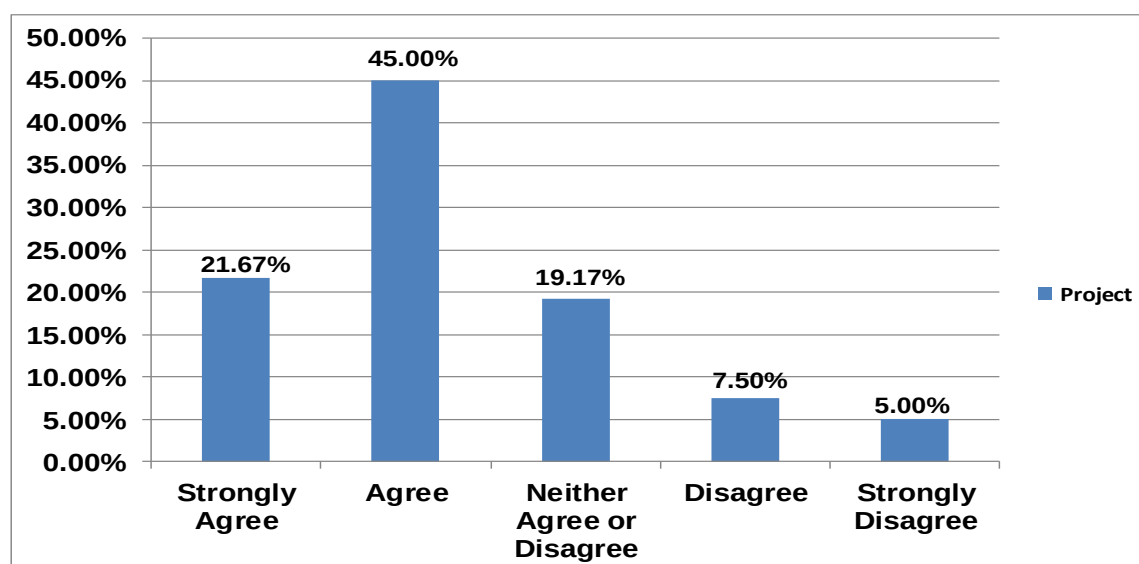


CHART NO 4.1.9: CHART SHOWING WEARING SAFETY EQUIPMENTS WHEN YOU TRAVEL

INTERPRETATION:

From the above table it is interpreted that 21.67% of the respondents strongly agree, 45.00% of the respondents agree, 19.17% of the respondents Neither agree or disagree, 7.50% of the respondents disagree and 5.00% of the respondents strongly disagree.

INFERENCE:

Majority of 45.00% respondents Agree are same that wear safety equipments when you travel.

Table 4.1.10

TABLE SHOWING ROADWAY TRANSPORTATION IS MOST EFFECTED SECTOR IN COVID

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	26	21.67
Agree	51	42.50
Neutral	30	25.00
Disagree	10	8.33
Strongly disagree	1	0.83
Total	120	100.0

Source: Primary data

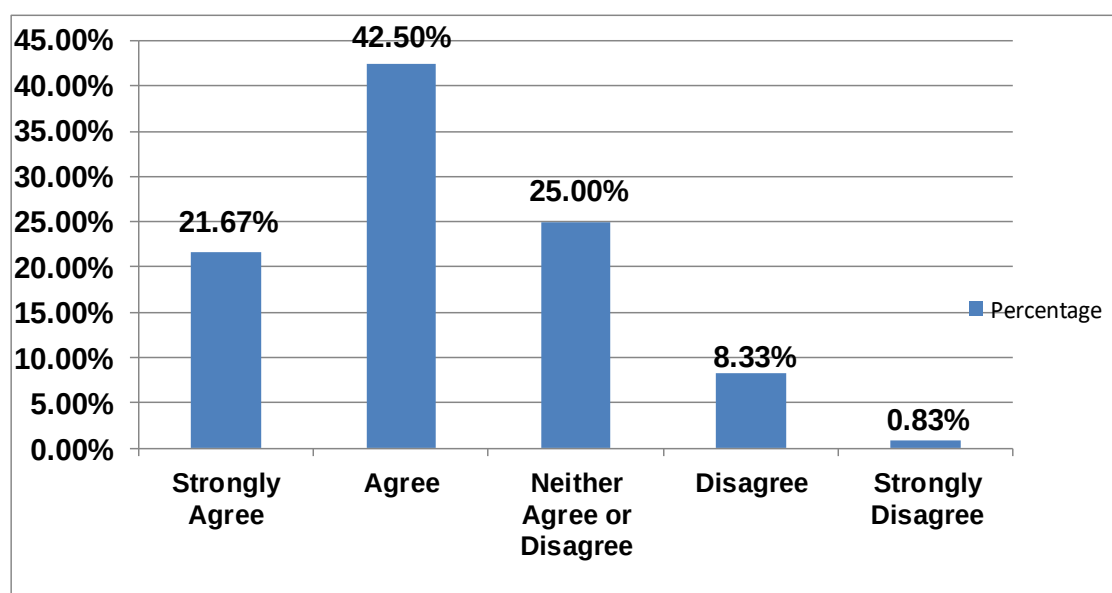


CHART NO 4.1.10: CHART SHOWING ROADWAY TRANSPORTATION IS MOST EFFECTED SECTOR IN COVID

INTERPRETATION:

From the above table it is interpreted that 21.67% of the respondents strongly agree, 42.50% of the respondents agree, 25.00% of the respondents Neither agree or disagree, 8.33% of the respondents disagree and 0.83% of the respondents strongly disagree.

INFERENCE:

Majority of 42.50% respondents Agree Road way transportation is most effected sector in covid

Table 4.1.11

TABLE SHOWING ROADWAY TRANSPORTS ARE SAFE TO TRAVEL IN THIS PANDAMIC

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	25	20.83
Agree	36	30.00
Neutral	47	39.17
Disagree	8	6.67
Strongly disagree	3	2.50
Total	120	100.0

Source: Primary data

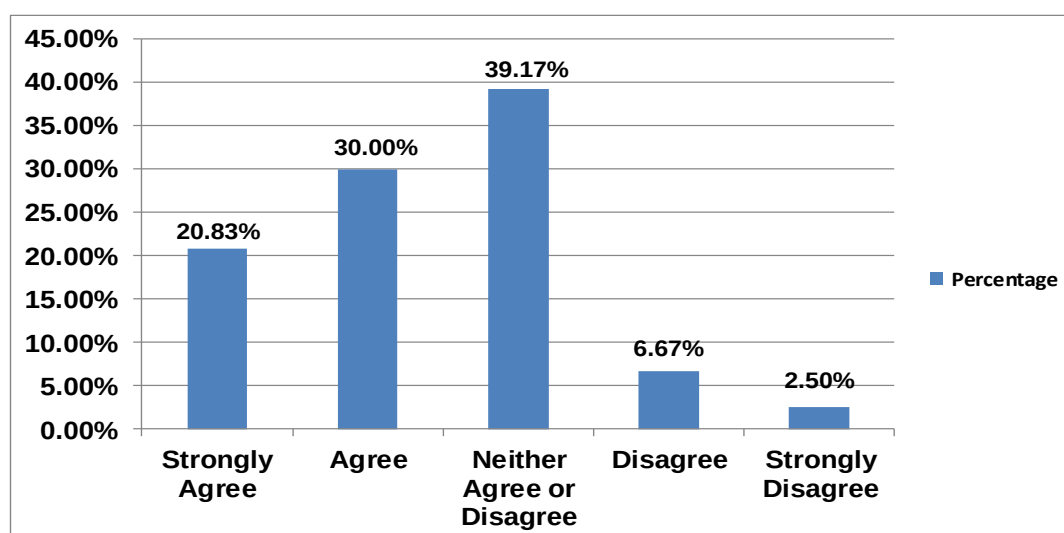


CHART NO 4.1.11: ROADWAY TRANSPORTS ARE SAFE TO TRAVEL IN THIS PANDAMIC

INTERPRETATION:

From the above table it is interpreted that 20.83% of the respondents strongly agree, 30.00% of the respondents agree, 39.17% of the respondents Neither agree or disagree, 6.67% of the respondents disagree and 2.50% of the respondents strongly disagree.

INFERENCE:

Majority of 39.17 respondents Neither Agree or Disagree that are Roadway transports are safe to travel in this pandemic.

Table 4.1.12

TABLE SHOWING PUBLIC TRANSPORT IS MORE RISK THAN A CAR RIDE

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	45	37.50
Agree	37	30.83
Neutral	24	20.00
Disagree	10	8.33
Strongly disagree	2	1.67
Total	120	100.0

Source: Primary data

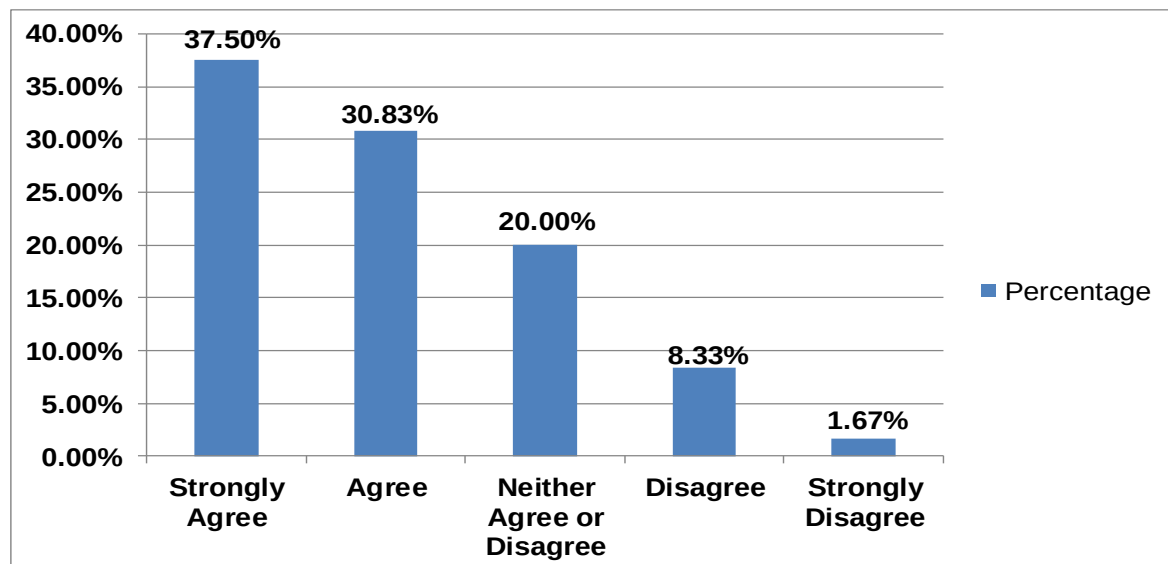


CHART NO 4.1.12: PUBLIC TRANSPORT IS MORE RISK THAN A CAR RIDE

INTERPRETATION:

From the above table it is interpreted that 37.50% of the respondents strongly agree, 30.83% of the respondents agree, 20.00% of the respondents Neither agree or disagree, 8.33% of the respondents disagree and 1.67% of the respondents strongly disagree.

INFERENCE:

Majority of 37.50% respondents Strongly Agree that public transport is more risk than a car ride.

Table4.1.13

TABLE SHOWING TRAVEL COST IS MORE IN COVID SITUATION

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	29	24.17
Agree	51	42.50
Neutral	26	21.67
Disagree	7	5.83
Strongly disagree	5	4.17
Total	120	100.0

Source: Primary data

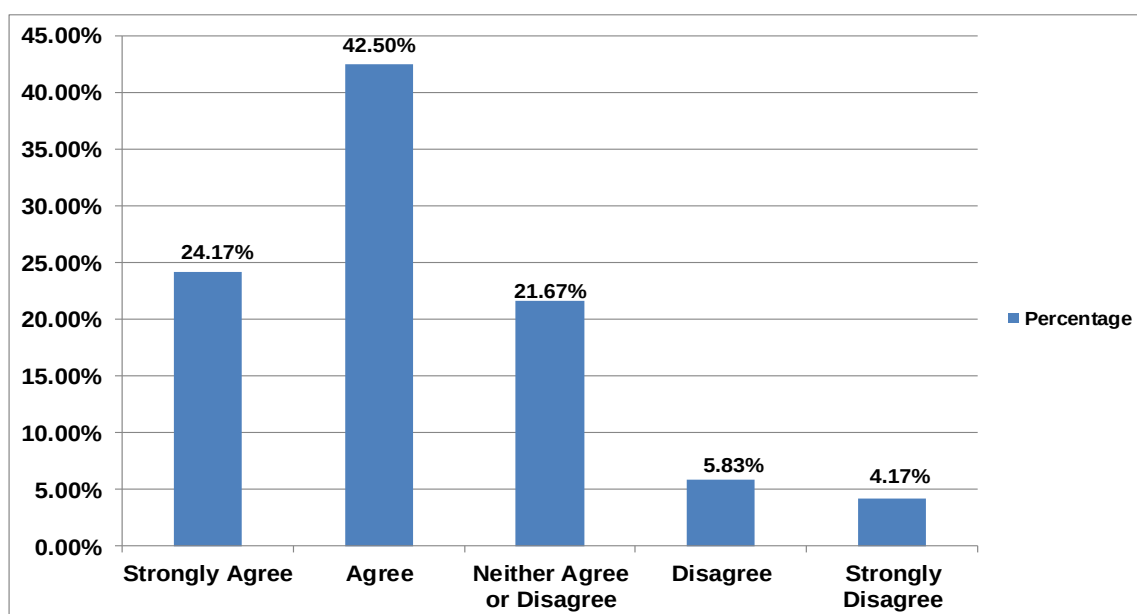


CHART NO 4.1.13: TRAVEL COST IS MORE IN COVID SITUATION

INTERPRETATION:

From the above table it is interpreted that 24.17% of the respondents strongly agree, 42.50% of the respondents agree, 21.67% of the respondents Neither agree or disagree, 5.83% of the respondents disagree and 4.17% of the respondents strongly disagree.

INFERENCE:

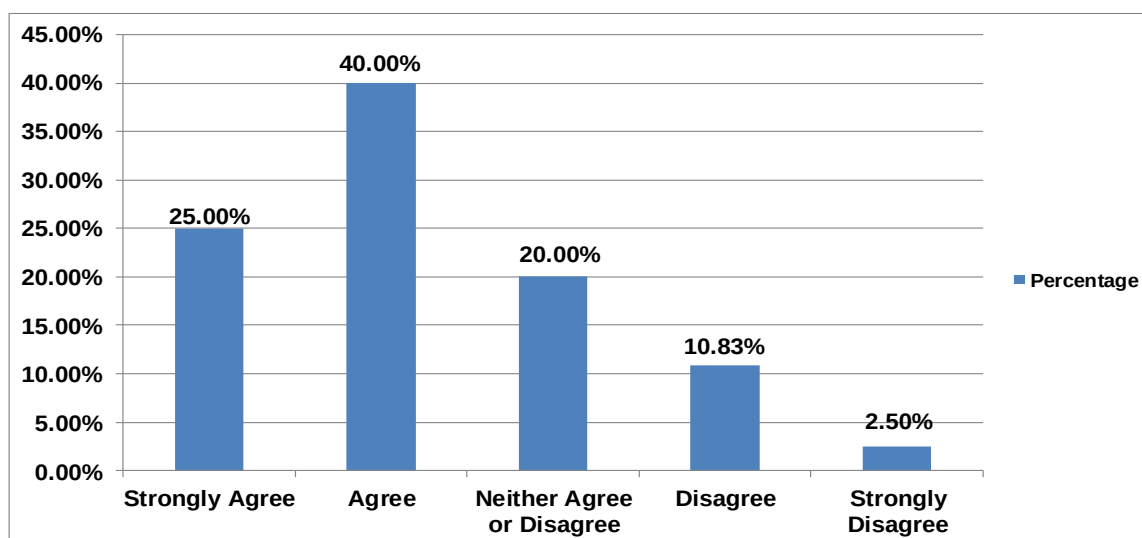
Majority of 42.50% respondents Agree that Travel cost is more in covid situation.

Table4.1.14

**TABLE SHOWING IT IS REQUIRED TO REDESIGN OF SUSTANABLE
TRANSPORT SYSTEM**

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	30	25.00
Agree	48	40.00
Neutral	24	20.00
Disagree	13	10.83
Strongly disagree	3	2.50
Total	120	100.0

Source:Primary data



**CHART NO 4.1.14: IT IS REQUIRED TO REDESIGN OF SUSTANABLE
TRANSPORT SYSTEM**

INTERPRETATION:

From the above table it is interpreted that 25.00% of the respondents strongly agree, 40.00% of the respondents agree, 20.00% of the respondents Neither agree or disagree, 10.83% of the respondents disagree and 2.50% of the respondents strongly disagree.

INFERENCE:

Majority of 40.00% respondents Agree that it is required to redesign of sustainable transport systems.

Table4.1.15

TABLE SHOWING DOES SAFETY MEASURES ARE UNDERTAKEN BY THE CAB DRIVERS IN COVID

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	34	28.33
Agree	49	40.83
Neutral	17	14.17
Disagree	17	14.17
Strongly disagree	2	1.67
Total	120	100.0

Source: Primary data

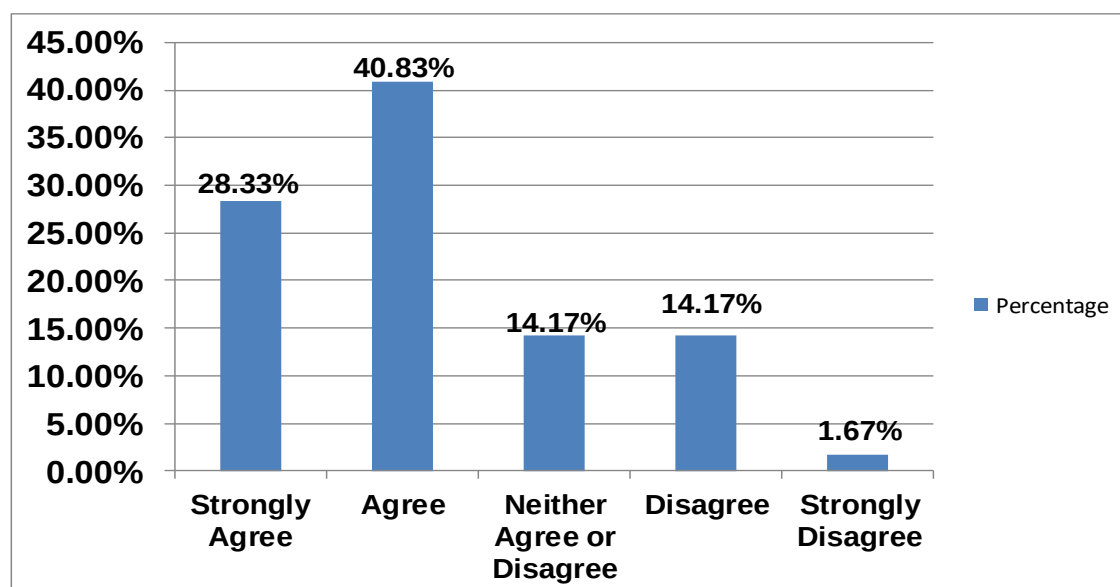


CHART NO 4.1.15: DOES SAFETY MEASURES ARE UNDERTAKEN BY THE CAB DRIVERS IN COVID

INTERPRETATION:

From the above table it is interpreted that 28.33% of the respondents strongly agree, 40.83% of the respondents agree, 14.17% of the respondents Neither agree or disagree, 14.17% of the respondents disagree and 1.67% of the respondents strongly disagree.

INFERENCE:

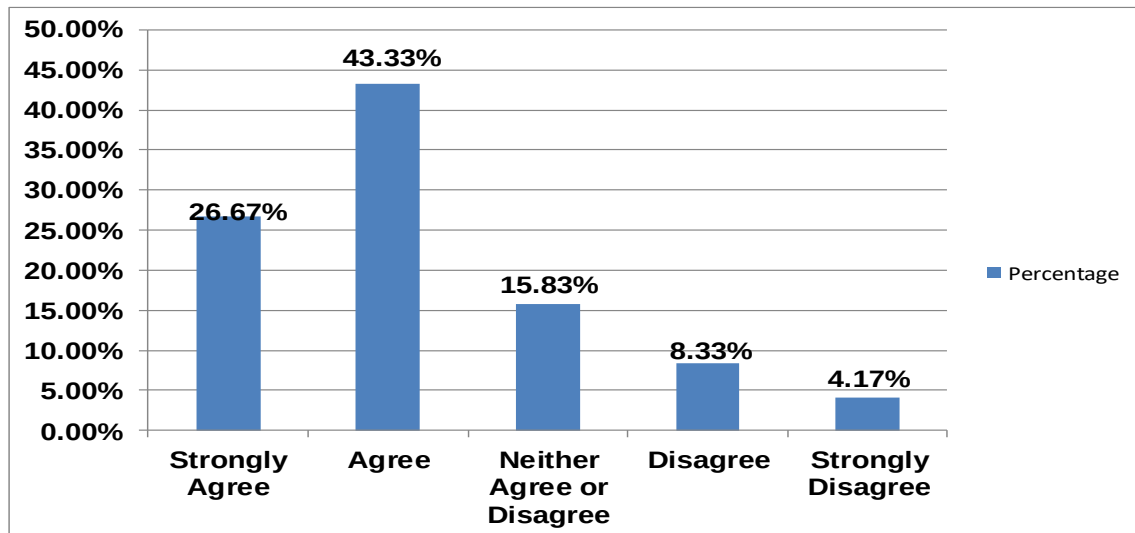
Majority of 40.83% respondents Agree that does safety measures are undertaken by the cab drivers in COVID-19.

Table4.1.16

**TABLE SHOWING ONLINE SHOPPINGS ALSO DOWN DUE TO LESS
TRANSPORTATION**

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	32	26.67
Agree	52	43.33
Neutral	19	15.83
Disagree	10	8.33
Strongly disagree	5	4.13
Total	120	100.0

Source: Primary data



**CHART NO 4.1.16: ONLINE SHOPPINGS ALSO DOWN DUE TO LESS
TRANSPORTATION**

INTERPRETATION:

From the above table it is interpreted that 26.67% of the respondents strongly agree, 43.33% of the respondents agree, 15.83% of the respondents Neither agree or disagree, 8.33% of the respondents disagree and 4.17% of the respondents strongly disagree.

INFERENCE:

Majority of 43.33% respondents Agree that online shoppings also down due to less transportation.

Table4.1.17

TABLE SHOWING DID YOU TAKE TOO MUCH OF TIME TO MOVE ONE PLACE TO ANOTHER

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	34	28.33
Agree	45	37.50
Neutral	23	19.17
Disagree	11	9.17
Strongly disagree	6	5.00
Total	120	100.0

Source: Primary data

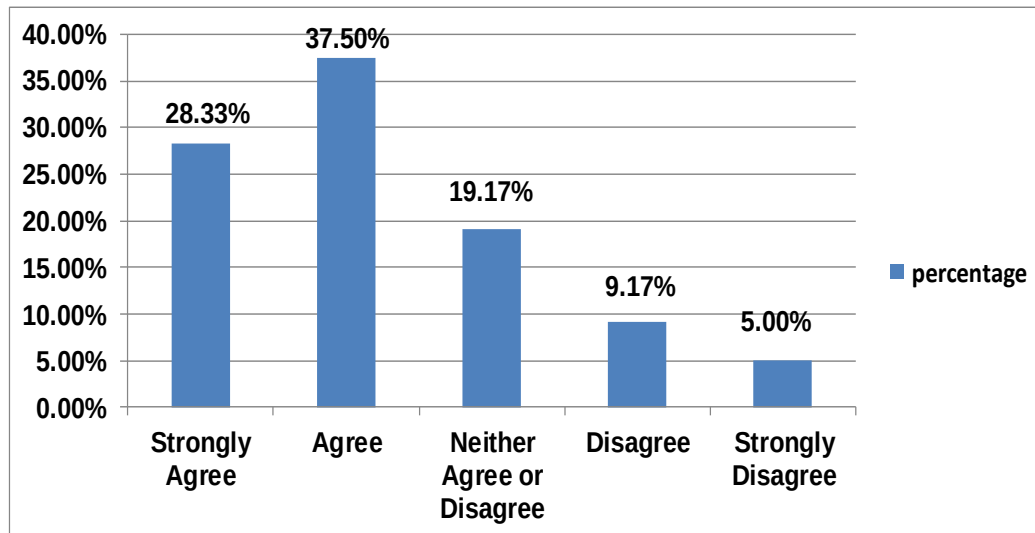


CHART NO 4.1.17: TAKE TOO MUCH OF TIME TO MOVE ONE PLACE TO ANOTHER

INTERPRETATION:

From the above table it is interpreted that 28.33% of the respondents strongly agree, 37.50% of the respondents agree, 19.17% of the respondents Neither agree or disagree, 9.17% of the respondents disagree and 5.00% of the respondents strongly disagree.

INFERENCE:

Majority of 37.50% respondents Agree that it takes too much time to move one place to another place.

Table4.1.18

TABLE SHOWING DURING COVID THE BUS SECTOR ARE CLOSED IT IS MORE TROUBLE

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	34	28.33
Agree	52	43.33
Neutral	18	15.00
Disagree	10	8.33
Strongly disagree	5	4.17
Total	120	100.0

Source: Primary data

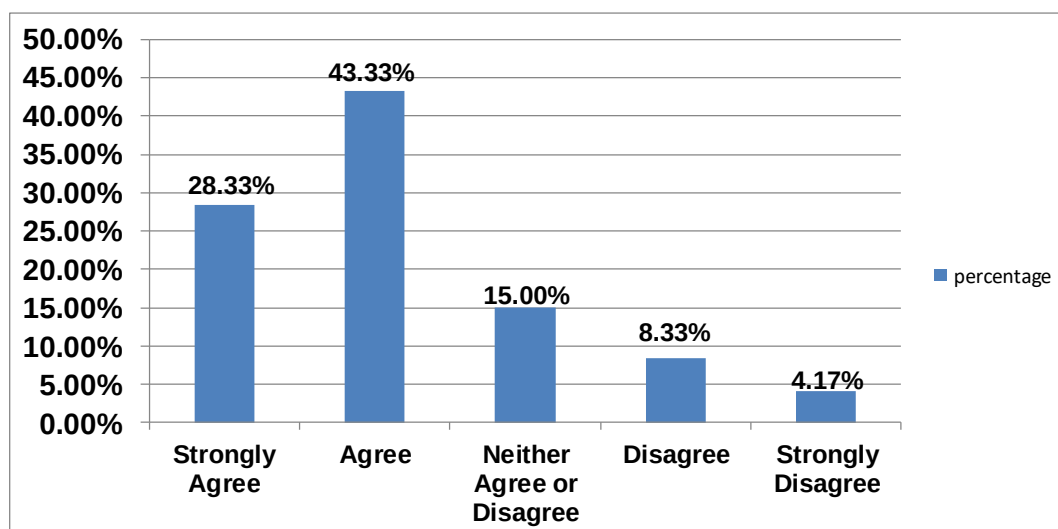


CHART NO 4.1.18: DURING COVID THE BUS SECTOR ARE CLOSED IT IS MORE TROUBLE

INTERPRETATION:

From the above table it is interpreted that 28.33% of the respondents strongly agree, 43.33% of the respondents agree, 15.00% of the respondents Neither agree or disagree, 8.33% of the respondents disagree and 4.17% of the respondents strongly disagree.

INFERENCE:

Majority of 43.33% respondents Agree that During Covid the bus sector are closed it is more trouble.

Table4.1.19

TABLE SHOWING TRANSPORT SECTOR EMPLOYERS GET LESS SALARY DURING COVID

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	34	28.33
Agree	51	42.50
Neutral	21	17.50
Disagree	9	7.50
Strongly disagree	4	3.33
Total	120	100.0

Source: Primary data

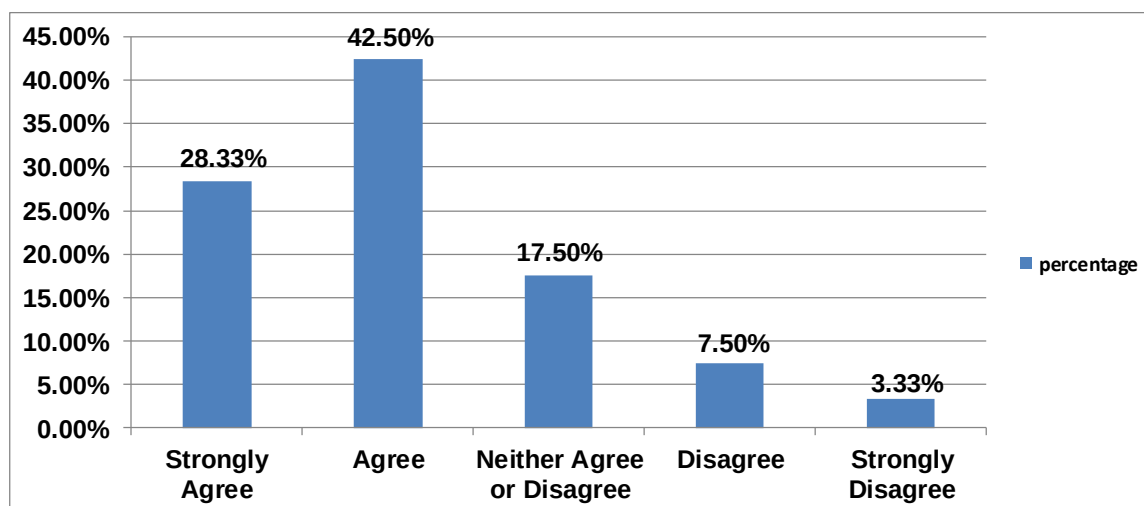


CHART NO 4.1.18: TRANSPORT SECTOR EMPLOYERS GET LESS SALARY DURING COVID

INTERPRETATION:

From the above table it is interpreted that 28.33% of the respondents strongly agree, 42.50% of the respondents agree, 17.50% of the respondents Neither agree or disagree, 7.50% of the respondents disagree and 3.33% of the respondents strongly disagree.

INFERENCE:

Majority of 42.50% respondents Agree that Transport sector Employers get less Salary During covid

Table 4.1.20

TABLE SHOWING SATISFIED WITH YOUR TRAVEL DAILY DURING COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Highly Satisfied	11	9.17
Satisfied	35	29.17
Neutral	30	25.00
Dissatisfied	37	30.83
Highly Dissatisfied	7	5.83
Total	120	100.0

Source: Primary data

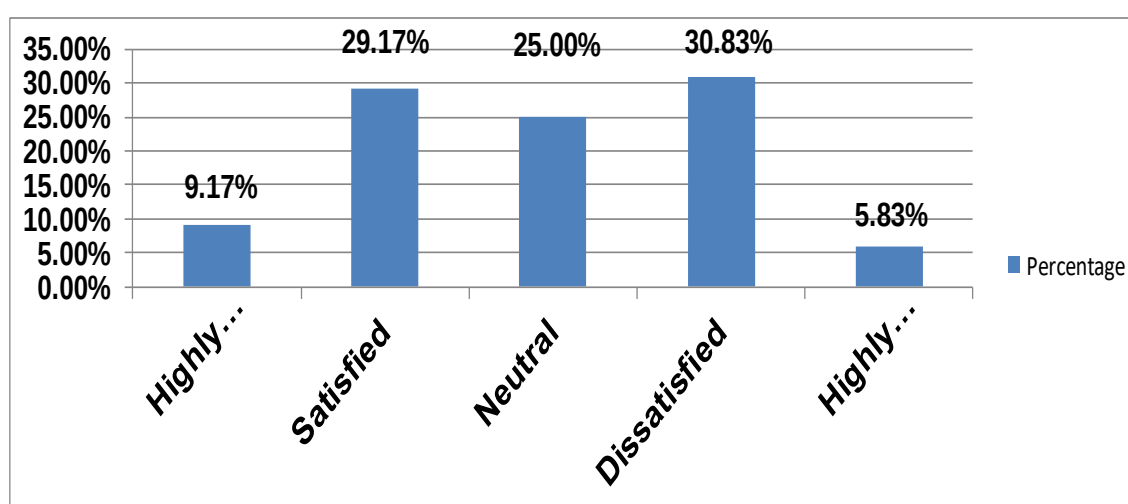


CHART NO 4.1.17: ARE YOU SATISFIED WITH YOUR TRAVEL DAILY DURING COVID 19

INTERPRETATION:

From the above table it is interpreted that 9.17% of the respondents Highly Satisfied, 29.17% of the respondents Satisfied, 25.00% of the respondents neutral, 30.83% of the respondents dissatisfied and 5.83% of the respondents strongly Highly dissatisfied.

INFERENCE:

Majority of 30.83% respondents Dissatisfied in satisfied with your travel daily during covid 19.

Table 4.1.21

TABLE SHOWING SATISFIED WITH WEARING SAFETY EQUIPMENTS DURING TRAVEL

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Highly Satisfied	5	4.17
Satisfied	36	30.00
Neutral	59	49.17
Dissatisfied	16	13.33
Highly Dissatisfied	4	3.33
Total	5	4.17

Source: Primary data

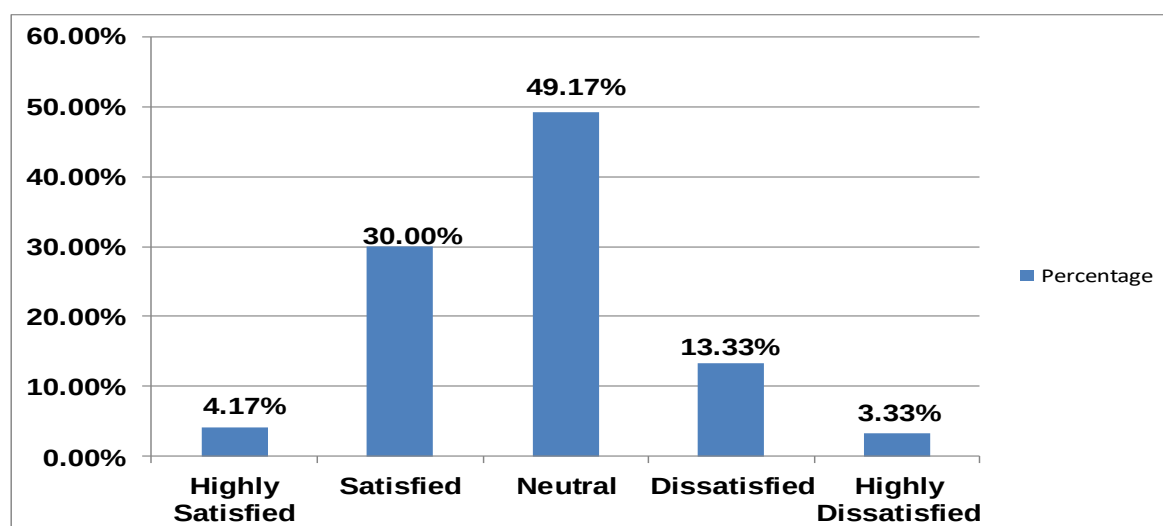


CHART NO 4.1.18: SHOWING SATISFIED WITH WEARING SAFETY EQUIPMENTS DURING TRAVEL

INTERPRETATION:

From the above table it is interpreted that 4.17% of the respondents Highly Satisfied, 30.00% of the respondents Satisfied, 49.17% of the respondents neutral, 13.33% of the respondents dissatisfied and 3.33% of the respondents strongly Highly dissatisfied.

INFERENCE:

Majority of 49.17% respondents Neutral in wearing safety equipments during travel.

Table 4.1.22

TABLE SHOWING TRAVEL TIME STAYS LONGER AND IT SATISFIED

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Strongly agree	5	4.17
Agree	37	30.83
Neutral	54	45.00
Disagree	20	16.67
Strongly disagree	4	3.33
Total	120	100.0

Source: Primary data

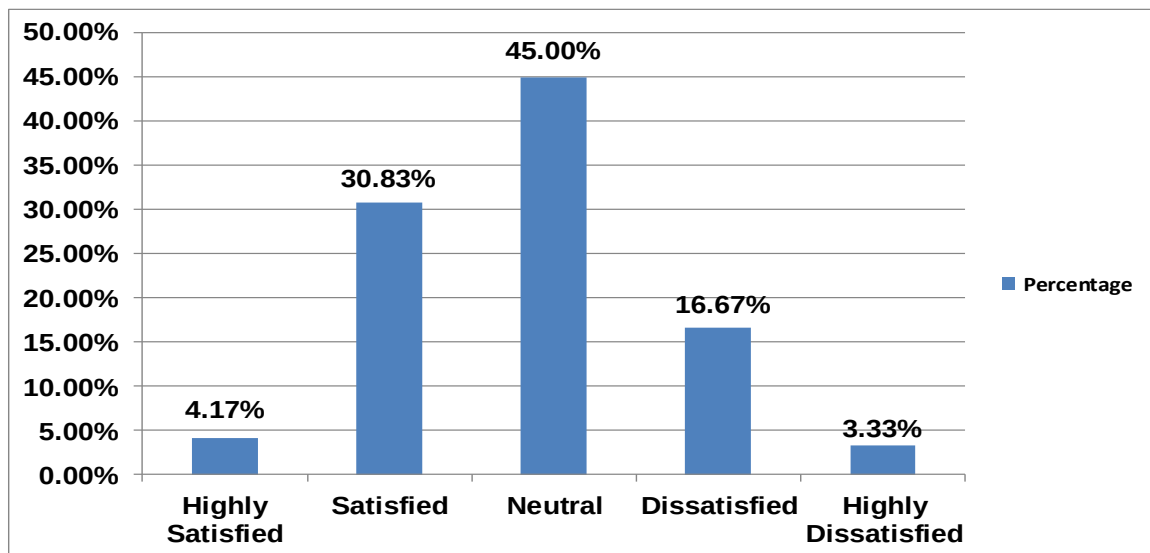


CHART NO 4.1.19: TRAVEL TIME STAYS LONGER AND IT SATISFIED

INTERPRETATION:

From the above table it is interpreted that 4.17% of the respondents Highly Satisfied, 30.83% of the respondents Satisfied, 45.00% of the respondents neutral, 16.67% of the respondents dissatisfied and 3.33% of the respondents strongly Highly dissatisfied.

INFERENCE:

Majority of 45.00% respondents neutral in travel time stays longer and it satisfied.

Table 4.1.23

TABLE SHOWING SATISFIED WITH FOOD AND RAVEL SERVICE DURING COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Highly Satisfied	10	8.33
Satisfied	39	32.50
Neutral	54	45.00
Dissatisfied	17	14.17
Highly Dissatisfied	0	0.00
Total	120	100.0

Source: Primary data

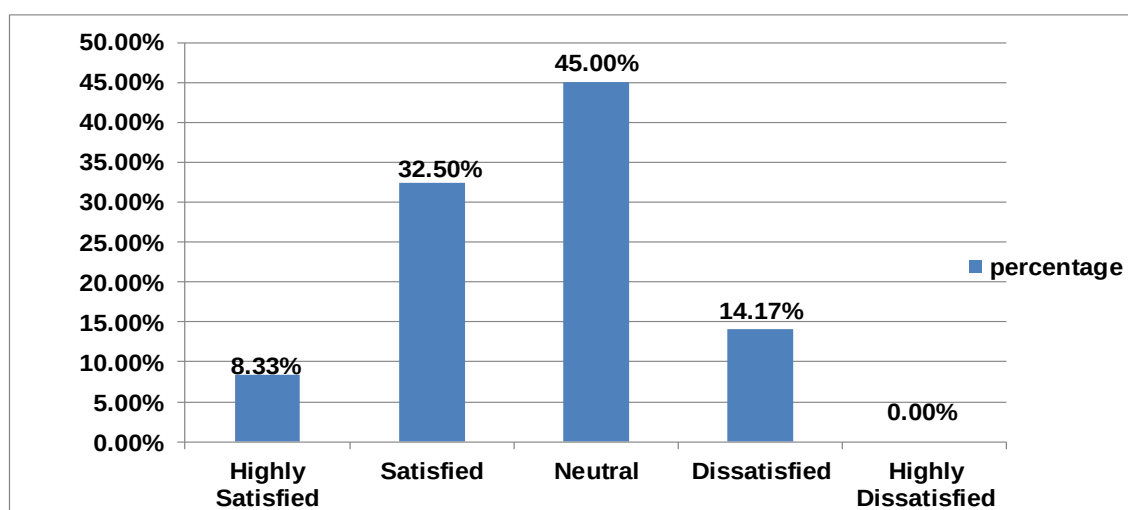


CHART NO 4.1.18: SHOWING SATISFIED WITH FOOD AND TRAVEL SERVICE DURING COVID 19

INTERPRETATION:

From the above table it is interpreted that 8.33% of the respondents Highly Satisfied, 32.50% of the respondents Satisfied, 45.00% of the respondents neutral, 14.17% of the respondents dissatisfied and 0.00% of the respondents strongly Highly dissatisfied.

INFERENCE:

Majority of 45.00% respondents neutral with food and travel service.

Table 4.1.24

TABLE SHOWING DID YOU SATISFIED BUS SERVICE ARE CLOSED DURING COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Highly Satisfied	10	8.33
Satisfied	28	23.33
Neutral	49	40.83
Dissatisfied	29	24.17
Highly Dissatisfied	4	3.33
Total	120	100.0

Source: Primary data

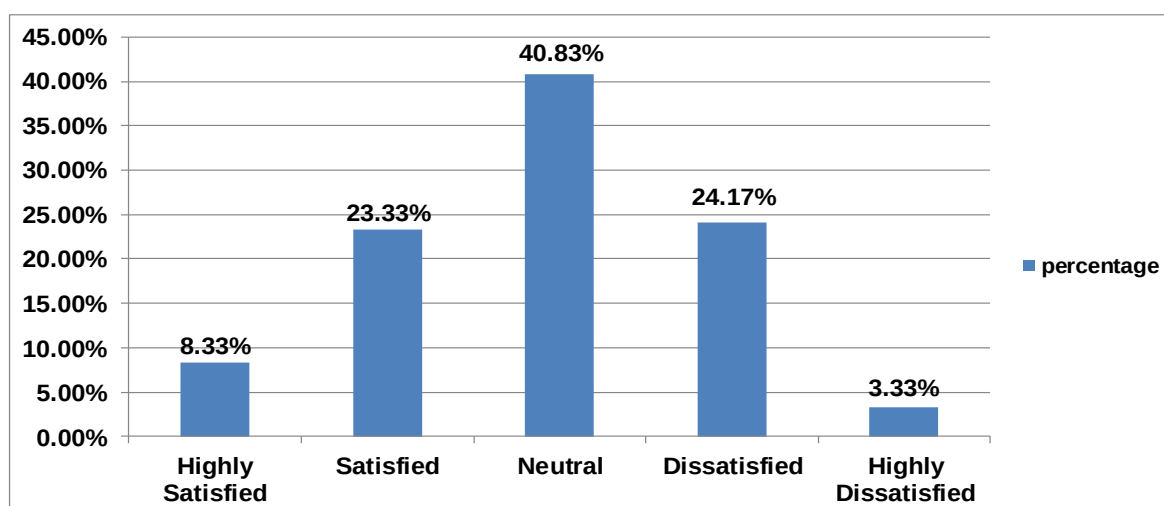


CHART NO 4.1.18: SHOWING BUS SERVICE ARE CLOSED DURING COVID 19

INTERPRETATION:

From the above table it is interpreted that 8.33% of the respondents Highly Satisfied, 23.33% of the respondents Satisfied, 40.83% of the respondents neutral, 24.17% of the respondents dissatisfied and 3.33% of the respondents strongly Highly dissatisfied.

INFERENCE:

Majority of 40.83% respondents Neutral with bus service closed.

Table 4.1.25

TABLE SHOWING WHICH TYPE OF VEHICLE IS SAFE TO TRAVEL DURING COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Car	30	25.00
Bike	51	42.50
Cab	32	26.67
Auto	3	2.50
Bycycle	4	3.33
Total	120	100.0

Source: Primary data

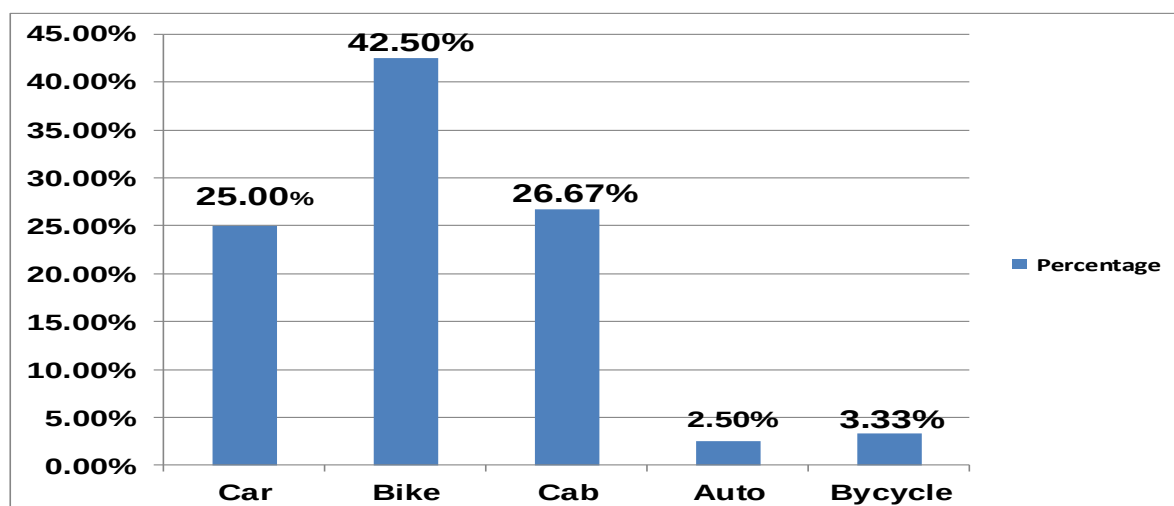


CHART NO 4.1.20: WHICH TYPE OF VEHICLE IS SAFE TO TRAVEL DURING COVID 19

INTERPRETATION:

From the above table it is interpreted that 25.00% of the respondents Car, 42.50% of the respondents Bike, 26.67% of the respondents Cab, 2.50% of the respondents Auto and 3.33% of the respondents Bycycle.

INFERENCE:

Majority of 42.50% respondents Bike in safe to travel during covid 19.

Table 4.1.26

TABLE SHOWING WHICH VEHICLE YOU MOSTLY USE DURING COVID 19

PARTICULAR	NO.OF RESPONDENTS	PERCENTAGE
Car	28	23.33
Bike	65	54.17
Cab	21	17.50
Auto	1	0.83
Bycycle	5	4.17
Total	120	100.0

Source: Primary data

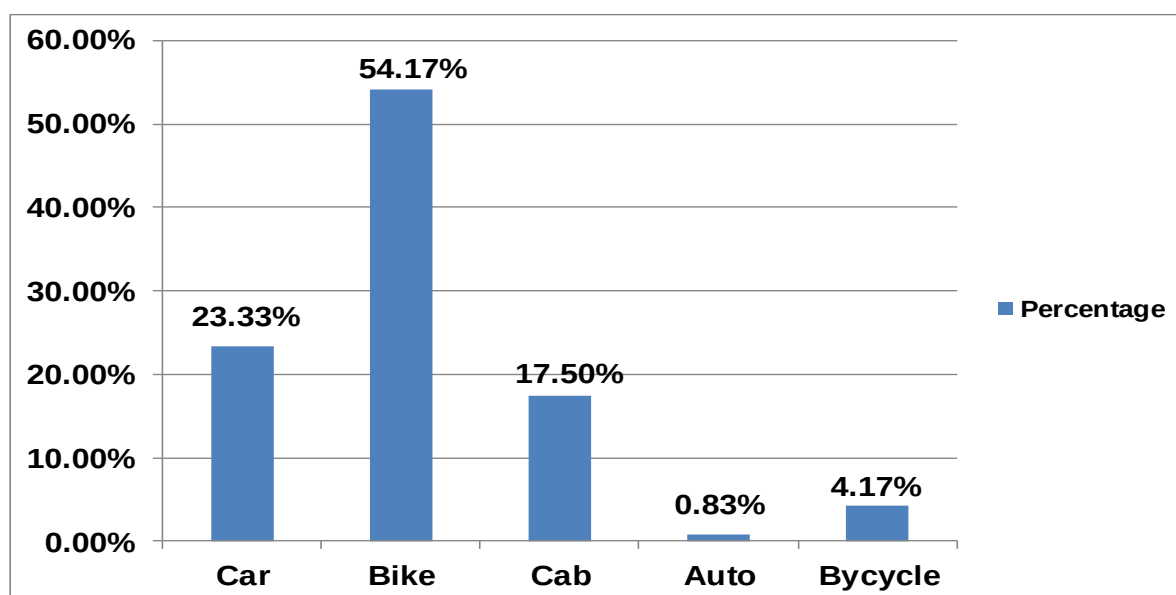


CHART NO 4.1.21: WHICH VEHICLE YOU MOSTLY USE DURING COVID 19

INTERPRETATION:

From the above table it is interpreted that 27.27% of the respondents Car, 57.85% of the respondents Bike, 11.57% of the respondents Cab, 0.83% of the respondents Auto and 2.48% of the respondents Bycycle.

INFERENCE:

Majority of 54.17% respondents Bike mostly use during covid 19.

4.2 CORRELATION

4.2.1 HYPOTHESIS:

H0 (Null Hypothesis): There is significant difference between Gender and Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference between Gender and Public transportation is more risk than a car ride.

Table 4.2.1: Showing Gender and Public transportations more risk than a car ride

Correlations			
		Gender	Public transportation
Gender	Pearson Correlation	1	.260**
	Sig. (2-tailed)		.004
	N	120	120
Public transportation is more risk than a car ride	Pearson Correlation	.260**	1
	Sig. (2-tailed)	.004	
	N	120	120

*.Correlation is significant at the 0.05 level (2-tailed).

Inference:

The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Gender and satisfied with travel daily during covid 19.

4.2.2 HYPOTHESIS:

H0 (Null Hypothesis): There is significant difference between Age and Road way transportation are safe to travel.

H1 (Alternate Hypothesis): There is a significant difference between Age and Road way transportation are safe to travel.

Table 4.2.2: Showing Age and Road way transportation are safe to travel.

Correlations			
		Gender	Safe to travel
Age	Pearson Correlation	1	.182*
	Sig. (2-tailed)		.047
	N	120	120
Roadway transportation are Safe to travel	Pearson Correlation	.182*	1
	Sig. (2-tailed)	.047	
	N	120	120

*.Correlation is significant at the 0.05 level (2-tailed)

Inference:

The p-value is 0.047 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Gender and satisfied with travel daily during covid 19.

4.2.3 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Gender and satisfied with travel daily during covid 19.

H1 (Alternate Hypothesis): There is a significant difference between Gender and satisfied with travel daily during covid 19.

Table 4.2.1: Showing Gender and satisfied with travel daily during covid 19 and Gender

Correlations			
		Occupation	Travel daily during covid 19
Gender	Pearson Correlation	1	-.199*
	Sig. (2-tailed)		.030
	N	120	120
Timetravel stays longer	Pearson Correlation	-.199*	1
	Sig. (2-tailed)	.030	
	N	120	120

*.Correlation is significant at the 0.05 level (2-tailed).

Inference:

The p-value is 0.030 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Gender and satisfied with travel daily during covid 19

4.3 ANOVA

4.3.1 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Did you satisfied the bus serves are closed during covid 19.

H1 (Alternate Hypothesis): There is a significant difference between Did you satisfied the bus serves are closed during covid 19.

Table 4.3.1: Showing Did you satisfied the bus serves are closed during covid 19 and Occupation

ANOVA					
satisfied the bus serves are closed during covid 19.					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.861	5	5.972	2.888	0.017
Within Groups	325.731	114	2.068		
Total	265.592	119			

Inference:

The p-value is 0.017 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between satisfied the bus serves are closed during covid 19.

4.2.2 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference between Public transportation is more risk than a car ride.

Table 4.3.2: Showing Public transportation is more risk than a car ride and Occupation

ANOVA					
Public transportation is more risk than a car ride.					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.956	1	14.956	8.524	0.004
Within Groups	207.036	118	1.755		
Total	221.992	119			

Inference:

The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Public transportation is more risk than a car ride.

4.2.3 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Travel time stays longer and it satisfied.

H1 (Alternate Hypothesis): There is a significant difference between Travel time stays longer and it satisfied.

Table 4.3.3: Showing Travel time stays longer and it satisfied and Qualification

ANOVA					
It is required to redesign of sustainable transport system					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33.542	8	4.193	2.403	0.020
Within Groups	193.658	111	1.745		
Total	227.200	119			

Inference:

The p-value is 0.001 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between It is required to redesign of sustainable transport system.

4.4 T-TEST

4.4.1 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference Public transportation is more risk than a car ride.

Table 4.4.1: Showing Public transportation is more risk than a car ride and Gender

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Std. Error Difference
Public transportation is more risk than a car ride.	Equal variances assumed	.004	.754	-2.920	118	.004	0.255
	Equal variances not assumed			-2.921	84.194	.005	0.255

Inference:

The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between I don't have enough rest breaks to relax in between work and Gender.

4.4.2 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between satisfied with your travel daily during covid 19 and Gender.

H1 (Alternate Hypothesis): There is a significant difference satisfied with your travel daily during covid 19 and Gender.

Table 4.4.2: Showing satisfied with your travel daily during covid 19 and Gender.

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Std. Error Difference
satisfied with your travel daily during covid 19	Equal variances assumed	1.938	.167	2.200	118	.030	0.312
	Equal variances not assumed			2.237	84.901	.028	0.306

Inference:

The p-value is 0.030 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between I don't have enough rest breaks to relax in between work and Gender.

4.4.3 HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference Important to wear safety equipments when you travel.

H1 (Alternate Hypothesis): There is a significant difference Important to wear safety equipments when you travel.

Table 4.4.3: Showing Important to wear safety equipments when you travel and Gender

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Std. Error Difference
Important to wear safety equipments when you travel	Equal variances assumed	1.027	.313	-1983	118	.050	0.288
	Equal variances not assumed			-2.049	84.960	.043	0.279

Inference:

The p-value is 0.050 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between I don't have enough rest breaks to relax in between work and Gender.

CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS

- It is found that 65.83% of the majority respondents are males.
- It is found that 38.33% of the majority respondents are between below 25 years of age.
- It is found that 52.50% of the majority respondents have completed their under graduate degree.
- It is found that 55.83% of the majority respondents are married.
- It is found that 45.00% of the majority respondents are Employee.
- Majority of respondents, 33.33% response is strongly agree to the question Transportation is safe to travel in covid 19.
- Majority of respondents, 50.83% response is Agree to the question Transportation is impotant in covid 19.
- Majority of respondents, 46.67% response is Agree to the question Do you manage your health and safety.
- Majority of respondents, 45.00% response is Agree to the question important to wear safety equipments when you travel.
- Majority of respondents, 42.50% response is agree to the question Road way transporation is most effected sector in covid.
- Majority of respondents, 39.17% response is Neither agree or disagree to the question Road way transports are safe to travel.
- Majority of respondents, 37.50% response is strongly agree to the question public transport is more risk than a car ride.
- Majority of respondents, 42.50% response is agree to the question Travel cost is more in covid situation
- Majority of respondents, 40.00% response is agree to the question It is required to redesign of sustainable transport Systems.
- Majority of respondents, 40.83% response is Agree to the question safety measures are undertaken by the cab drivers.

- Majority of respondents, 43.33% response is Agree to the question online shoppings also down due to less transportation.
- Majority of respondents, 42.50 % response is Agree to the question Transport sector Employers get less Salary during COVID.
- Majority of respondents, 30.83% response is Dissatisfied to the question satisfied with your travel daily during COVID 19.
- Majority of respondents, 49.17% response is Neutral to the question satisfied with wearing safety equipments during travel.
- Majority of respondents, 45.00% response is Neutral to the question Travel time stays longer and it satisfied.
- Majority of respondents, 45.00% response is Neutral to the question Satisfied with Food and Travel service during COVID 19.
- Majority of respondents, 45.83% response is Neutral to the question Did you satisfied bus services are closed during COVID 19.
- Majority of respondents, 42.50% response is Bike to the question which type of vehicle is safe to travel during COVID 19.
- Majority of respondents, 54.17% response is Bike to the question which type of vehicle is safe to travel during COVID 19.

5.2 SUGGESTIONS

As a result of this certain suggestions are put forth in order to how to travel safely in covid.

- Many employers have suggested for how to travel safely during covid situation.
- Also many of them suggested what are precautionary they done before travel.
- COVID19 offer a unique opportunity. required to redesign of sustainable transport systems from a different perspective to develop effective and resilient transport systems.
- Safety measures under taken all the public.
- Many people have suggest to reduce cost of transportations during covid time.
- Many employers are feel their routine life effects more.
- Also peoples are feel more trouble because of less transports.
- The roadway public transportations are more effected during covid so people use there own vehicles to travel.

5.3 CONCLUSION

The study concluded that how to manage and travel safely in covid 19 in roadways during covid 19. The study states that during covid 19, majority of public says COVID19 offer a unique opportunity. required to redesign of sustainable transport systems from a different perspective to develop effective and resilient transport systems. This study also indicates that during COVID 19 the people struggled major things like food health cares. Also the study states the income of drivers is down during COVID 19. This study also states people can not go a place with in a time on COVID 19. This study says how people safety measures takes when they travel. Finally, I found public Transportation sector has been one of the primary victims of COVID-19. From rickshaw pullers to Bus drivers.

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APPENDIX - I (QUESTIONNAIRE)

A STUDY ON ROADWAY TRANSPORTATION MANGEMENT TOWARDS GENERAL PUBLIC IN COVID 19

QUESTIONNAIRE

1. Name: _____

2. Gender:

(a) Male (b) Female

3. Age:

(a) Below 25 Years (b) 25 - 35 Years (c) 35 - 45- Years

(d) Above 45 Years

4. Marital Status:

(a) Married (b) Unmarried

5. Qualification:

(a) SSLC (b) U.G (c) P.G (d) Others

6. Occupation

(a) Student (b) Employee (c) Self employee (d) others

7. The transportation is safe to travel in covid 19

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

8. Transportation is very important in covid situation

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

9. Do you manage your health and safety

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

10. Is it important to wear safety equipments when you travel

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

11. Road way transportation is most effected sector in covid

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

12. Road way transports are safe to travel in this pandemic

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

13. public transport is more risk than a car ride

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

14. Travel cost is more in covid situation

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

15. COVID19 offer a unique opportunity. It is required to redesign of sustainable transport systems from a different perspective to develop effective and resilient transport systems

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

16. Does safety measures are undertaken by the cab drivers in COVID-19. (1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

17. During COVID-19, online shoppings also down due to less transportation

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

18. Did you take too much time to move from one place to another

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

19. During Covid the bus sector are closed it is more trouble

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

20. Transport sector Employers get less Salary During covid

(1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree)

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

21. Are you satisfied with your travel daily during covid 19

(1-Highly Satisfied, 2-Satisfied, 3-Neutral, 4-Dissatisfied, 5-Highly Dissatisfied)

	1	2	3	4	5	
Highly Satisfied	☐	☐	☐	☐	☐	Highly Dissatisfied

22. Are you satisfied with wearing safety equipments during travel

(1-Highly Satisfied, 2-Satisfied, 3-Neutral, 4-Dissatisfied, 5-Highly Dissatisfied)

	1	2	3	4	5	
Highly Satisfied	☐	☐	☐	☐	☐	Highly Dissatisfied

23. During covid Your travel time stays longer and it satisfied to you

(1-Highly Satisfied, 2-Satisfied, 3-Neutral, 4-Dissatisfied, 5-Highly Dissatisfied)

	1	2	3	4	5	
Highly Satisfied	☐	☐	☐	☐	☐	Highly Dissatisfied

24. Satisfied with Food and Travel service during covid 19

(1-Highly Satisfied, 2-Satisfied, 3-Neutral, 4-Dissatisfied, 5-Highly Dissatisfied)

	1	2	3	4	5	
Highly Satisfied	☐	☐	☐	☐	☐	Highly Dissatisfied

25. Did you satisfied bus services are closed during covid 19

(1-Highly Satisfied, 2-Satisfied, 3-Neutral, 4-Dissatisfied, 5-Highly Dissatisfied)

	1	2	3	4	5	
Highly Satisfied	☐	☐	☐	☐	☐	Highly Dissatisfied

26. which type of vehicle is safe to travel during covid 19

(a)CAR (b)BIKE (c)CAB (d)AUTO (e)BYCYCLE

27. which vehicle you mostly use during covid 19

(a)CAR (b)BIKE (c)CAB (d)AUTO (e)BYCYCLE

28. Give any suggestion for how to travel safely?

Ans:_____

APPENDIX - II (ARTICLE)

A STUDY ON ROADWAY TRANSPORTATION MANAGEMENT TOWARDS GENERAL PUBLIC ON COVID-19

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ABSTRACT

The COVID-19 made impact in Roadway transportation sector towards public. In india the transportation is most effected sector due to the pandemic situation and most of the public avoid public transportation because of COVID. Transportation sector has been one of the primary victims of COVID-19. From rickshaw pullers to bus drivers, all have been affected economically by the pandemic. India's overall energy demand fell down. In this situation people routine work effected and also people can manage there health and safety. Based on collected data from 120 online respondents during on COVID-19, This study is about examine the roadway transportation management towards general public. How people travel safely on covid situation how they are struggled due to less transportations. The study used SPSS analytical tools such as Correlation, ANOVA and Independent T.test. This tools is used and found how impacts roadway public transportation. Finally, the result showed that in this pandemic situation most of the people were effected their daily work due to less transportation and they can manage it.

Key words: Transportation, Road ways, public transportation, COVID-19

INTRODUCTION

During COVID 19 the transportation sector is most effected sector and it leads the demand of transportation more. Many of the public get struggle due to less transportation during the lockdown and the public who going the work daily on

roadways they are also effected by COVID 19 .And the goods and services are also effected on COVID 19. Due to lockdown in India, the demand for passenger transport has been adversely hit.The over all transportation sector as on COVID 19.After impliment of the lockdown people gets more struggled to travel one place to another place also they faces the major problems of less food and health care due to less transportation. Many of the migrant workers are reach there natives by walking it self.

REVIEW OF LITERATURE

2.1 REVIEW OF LITERATURE.

Ashish Verma, R.Jayakrishnan, S.Velmurugan(2020), This research paper study about Fearing crowd infections, commuters prefer travelling in private modes like two-wheelers. Cities like Delhi, that resumed services nearly four weeks ago, observed less ridership than the allowed 20 passengers per bus, despite the limited frequencies on many routes. Although bus crowding is seen in some cities such as Mumbai, it is temporary and due to a lack of alternatives. A significant drop in public transport ridership can be expected for months after resumption, based on opinion surveys. That means measures are needed to gain the public's confidence in mass transport modes, to avoid a significant modal shift to road traffic.

Hongming Dong,(2021)The influence of the COVID-19 pandemic will linger for an extended period, although it is under control and public transport is gradually resuming its operations. However, there is limited understanding of passengers' construal regarding this public health crisis and their perceptions of safety and feelings of satisfaction toward public transport after suffering through the spread of such an infectious disease. Therefore, the aim of this research is to understand passengers' psychological responses to the pandemic over time in terms of their emotional arousal and mental construal, as public transport begins to resume its operations with the pandemic almost entirely contained.

J.Krishna Naik(2020) During the Covid-19 outbreak, the entire world is dealing with a myriad of new challenges. Businesses and all other activities across the globe have been adversely affected which in return is affecting the economy. The demand-supply gaps are clearly visible in every sector. The effect of Covid-19 can

be seen in the usage of public transport also. Trade all across the globe is plunged as Covid-19 upends the global economy.

Karl Kim,(2021) COVID-19 impacts on transportation and society continues to evolve and progress. As of my writing today, across the world, more than 67.2 million people have been infected with SARS-CoV-2 and more than 1.5 million people have died from the disease – see covid19.who.int. The United States leads the world with over 14.5 million cases, followed by India (9.7 million) and Brazil (6.6 million). With more than 3,000 daily cases in the U.S., the impacts of the pandemic persist. In addition to loss of life and illness, there have been significant economic losses, business closures, job losses, and widespread disruption of educational, religious, cultural, and social activities, with resulting negative impacts to our quality of life. The pandemic has resulted in decreased travel by ground, air and water transportation modes.

Muhammad Abdulla, Charitha Dias, Deepti Muley, Md. Shahin Various measures were recommended or imposed by the governments to control the spread of COVID-19. Travel behaviors are significantly influenced due to such measures. However, people have various travel needs ranging from grocery shopping to work. This study examines the changes that occurred in travel behavior due to the COVID-19 pandemic. Data were collected through an online questionnaire survey that included questions on trip purpose, mode choice, distance traveled, and frequency of trips before and during COVID-19. 1203 responses were collected from various countries around the world.

OBJECTIVES OF THE STUDY

- 1.To collect data from public and workers on how the pandemic affects their routine work.
- 2.To collect data from public who are travelling in road way transportation during this pandemic.

RESEARCH METHODOLOGY

RESEARCH DESIGN : In this study, Descriptive Research Design is used in research topic.

SAMPLING TECHNIQUE: The method of sampling adopted to conduct survey is Convenience Sampling Method. The area of research is concentrated on General public in Chennai.

SOURCES OF DATA:*Primary Data:* The primary data for this study is collected through questionnaire consisting of multiple choice questions.*Secondary Data:* The secondary data is collected by referring by websites, journals, articles and research paper.

STRUCTURE OF QUESTIONNAIRE: Multiple choice questions and Likert's scale questions.

SAMPLE SIZE: Sample size 120 people.

PERIOD OF STUDY: The period of study is carried out from January 2021 to March 2021 which is three months of study.

ANALYTICAL TOOLS

- Correlation.
- ANOVA.
- Independent T-test.

CORRELATON

HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Gender and Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference between Gender and Public transportation is more risk than a car ride.

Table Showing Gender and Public transportations more risk than a car ride

Correlations			
		Gender	Public transportation
Gender	Pearson Correlation	1	.260**
	Sig. (2-tailed)		.004
	N	120	120
Public transportation is more risk than a car ride	Pearson Correlation	.260**	1
	Sig. (2-tailed)	.004	
	N	120	120

*.Correlation is significant at the 0.05 level (2-tailed).

Inference: The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Gender and satisfied with travel daily during covid 19.

ANOVA

HYPOTHESIS:

H0 (Null Hypothesis): There is no significant difference between Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference between Public transportation is more risk than a car ride.

Table Showing Public transportation is more risk than a car ride and Occupation

ANOVA					
Public transportation is more risk than a car ride.					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.956	1	14.956	8.524	0.004
Within Groups	207.036	118	1.755		
Total	221.992	119			

Inference:

The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between Public transportation is more risk than a car ride.

T-TEST**HYPOTHESIS:**

H0 (Null Hypothesis): There is no significant difference Public transportation is more risk than a car ride.

H1 (Alternate Hypothesis): There is a significant difference Public transportation is more risk than a car ride.

Table 4.4.3: Showing Public transportation is more risk than a car ride.

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Std. Error Difference
Public transportation is more risk than a car ride.	Equal variances assumed	.004	.754	-2.920	118	.004	0.255
	Equal variances not assumed			-2.921	84.194	.005	0.255

Inference:The p-value is 0.004 which is lesser than the alpha value (0.05), hence alternate hypothesis (H1) is accepted. Therefore, there is a significant difference between I don't have enough rest breaks to relax in between work and Gender.

SUGGESTIONS

- Many employers have suggested for how to travel safely during covid situation.
- Also many of them suggested what are precautionary they done before travel.
- COVID-19 offer a unique opportunity. required to redesign of sustainable transport systems from a different perspective to develop effective and resilient transport systems.

CONCLUSION

The study concluded that how to manage and travel safely in covid 19 in roadways during covid 19. The study states that during covid 19, majority of public says COVID19 offer a unique opportunity. required to redesign of sustainable transport systems from a different perspective to develop effective and resilient transport systems. This study also indicates that during COVID 19 the people struggled major things like food health cares. Also the study states the income of drivers is down during COVID 19. This study also states people can not go a place with in a time on COVID 19. This study says how people safety measures takes when they travel. Finally, I found public Transportation sector has been one of the primary victims of COVID-19. From rickshaw pullers to Bus drivers.

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