



Impact of Covid-19 on Road Transport Sector

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Date of Submission: 16-07-2021

Date of Acceptance: 01-08-2021

ABSTRACT

The impact of Corona virus pandemic on India has been largely disruptive in terms of economic activity as well as a loss of human lives. Almost all the sectors have been adversely affected of this pandemic. The Road Transport sector is not free of it. Both the passengers and goods have been severely impacted by COVID-19 due to transport restrictions put in place to mitigate the pandemic; overall economic downturn has been witnessed. Transportation industry, an essential activity should have been continued to operate through the lockdowns with following true social distancing. Although some Researchers, Departments of Transportation (DOT's), Federal Highway Administration (FHWA), and private organizations have provided vital information and guidelines to mitigate the unintended consequences of the pandemic, the impacts of COVID-19 on various types of transportation modes have been rarely analyzed and compared. This paper gives rich information into the system and cognizance of the effect of COVID-19 and the developments that the Transportation area has needed to embrace so as to cling to the lockdown rules while being operational and productive. This research analyzes how road transportation sector has addressed the short-term and long-term effects of the pandemic and results of the study concluded that the survival of road transportation industry is not solely reliant on the duration of the COVID-19 pandemic but on the resilience adapted by the different sectors to cope up with the situation.

KEY WORDS: COVID-19, Road Transport, Federal Highway Administration (FHWA)

I. INTRODUCTION

The global health crisis that we are now experiencing has not struck the international community for over a century. In this unprecedented crisis, all countries and all areas of our daily lives are

immensely affected. By the time a remedy is discovered to stop the Corona virus from transmitting and putting an end to this pandemic, the sole weapon we currently have against the virus is to limit human contact as much as possible. The virus is incapable of traveling; we humans carry it from place to place causing havoc, unless our movement is constrained the transmission cannot be stopped.

As a result, of the wide spread virus the world has come to a stand still, from local transport to global supply chain. The busy and active movements in the urban traffic and global trade routes have become calm, activity in the aviation sector had fell by 90%, and the level of citizens' mobility in different parts of the globe has fallen to a single digit percentage compared to the pre-pandemic era. The transport industry struck itself in an unrepresented situation, one of its essential roles is to bring the world together, enable citizens meet face to face, and it is considered as the main facilitator of social interaction. Now that function has paused due to the movement restrictions put in place around the world.

Transportation must continue with its functions where moving people and goods is an imperative, not a choice. The role of transportation is fundamental and cannot be depreciated as it still contributes to nourishing and supplying other sectors that were immensely impacted by COVID-19 such as the health sector. Doctors and Nurses must be able to get to work, hospitals need to receive the necessary medical supplies, citizens restricted from movement rely on provisions being delivered to shops, and not least international supply chains must continue to move despite all the challenges to keep the inevitable economic impact as limited as possible.

The focus of the governments of various countries is to stop and control the community transmission of COVID-19 in order to restrain the severe damage, but a dynamic transmission of corona virus infection makes it a strenuous task. Unavailability of clinical cure and delay in



developing the vaccine further makes the situation worse than it has ever been in recent times. Meanwhile, the treatment is symptomatic, and oxygen therapy represents the primary treatment intervention for patients having a severe infection, mechanical ventilation may be necessary in cases of respiratory failure to provide oxygen therapy. The availability of such facilities is also limited, and it becomes enormously challenging to fulfil the requirement, especially when a lockdown is enforced around half of the globe. In the months of March and April 2020, lockdown was imposed in several countries to control the fatalities and loss of physical health.

II. REVIEW OF LITRATURE

An article by Sam Mehmet (2020) '*Survey: How Has COVID-19 Impacted Bus Operations in India?*' said that the survey was designed in a bid to capture the key challenges which operators are likely to face during the resumption of services. Their challenges were segregated into operational and service delivery, financial management, crew management and fleet management .

UITP and The World Bank (2020) made a study on '*Bus Operations in India: What has been the Impact of COVID-19?*', in this study, bus operators across India as part of the new statistics in brief was studied, Impact of COVID-19 on Indian bus operators, which aims to provide an overview on the specific challenges faced by the sector and suggest the practical solutions needed to address them, as metros faced closure in India during the lockdown. The bus lever aged to provide travel options for key workers.

An article by Arvind Kumar and Sankar (2020) on '*Impact of COVID-19 on India's Transport Sector*' explained that COVID-19 is a demand-cum-supply shock. There is a predictable reduction in travel and commercial activity. Consequently, it has impacted transport activity more severely.

III. RESEARCH GAP

There could be many other studies related to the issue of COVID-19 and its impact on Transport sector. Keeping the time and resource of the researchers in view, such studies or papers have not been reviewed in the presented study. There is no particular study related to the issue of Impact of COVID-19 on Road Transport sector. Under the circumstances, this paper attempts to explain as how COVID-19 pandemic affected on Road Transport.

IV. OBJECTIVES OF THE STUDY

The present paper as set the following Objectievs:

1. To know the conceptual framework of Road Transport.
2. To identify the impact of COVID-19 on Road Transport.

V. PAPER SCHEME

This paper is analytical and descriptive in nature. In the paper, the concept of COVID-19 is briefly discussed. A brief review of literature has also been carried. Base on the review the research gap has been identified. The issue of road transport and how impacted by COVID-19 pandemic has analyzed based on the secondary data. At the end a formal conclusion has been arrived at.

VI. ROAD TRANSPORTATION

Road transport is a type of transport by using roads. Transport on roads can be roughly grouped into the transportation of goods and transportation of people. In many countries licensing requirements and safety regulations ensure a separation of the two industries. Movement along roads may be by bike or automobile, truck, or by animal such as horse or oxen. Standard networks of roads were adopted by Romans, Persians, Aztec, and other early empires, and may be regarded as a feature of empires. Cargo may be transported by trucking .companies, while passengers may be transported via mass transit. Commonly defined features of modern roads include defined lanes and signage. Various classes of roads exist, from two-lane local roads with upgrade intersections to controlled-access highways with all cross traffic grade-separated.

The nature of road transportation of goods depends on, apart from the degree of development of the local infrastructure, the distance the goods are transported by road, the weight and volume of an individual shipment, and the type of goods transported. For short distances and light small shipments, a van or pickup truck may be used. For large shipments even if less than a full truckload a truck is more appropriate (Trucking and Hauling). In some countries cargo is transported by road in horse-drawn carriages, donkey carts or other non-motorized mode. Delivery services are sometimes considered a separate category from cargo transport. In many places, fast food is transported on roads by various types of vehicles. For inner city delivery of small packages and documents bike couriers are quite common.

People are transported on roads. Special modes of individual transport by road such as cycle rickshaws may also be locally available. There



are also specialist modes of road transport for particular situations, such as ambulances.

VII. IMPACT ON COVID-19 ON ROAD TRANSPORT

For the first time in many years, the world has witnessed free-flowing traffic in many parts of the world with a huge population density. For essential workers who have to commute to work, driving has become much easier due to less traffic congestion. The same concept applies to the trucks which delivering e-commerce orders. The reduction in the number of cars and busses has resulted in cleaner air and clearer views in many cities.

Impact of COVID-19 in short-term are as below as following: Impact on Environment

An International study declared that everyday emissions have decreased by 17% between January and April 2020 when compared to 2019 January and April. The research denotes that it is the largest annual decrease in carbon emissions since Second World War.

China and the United States are the top two carbon emitters in the entire world. In China, emissions dropped by 533,500 pounds and 456,350 pounds in the U.S.

Impact on Revenue

Due to the restrictions of social distancing and rise in the number of employees working remotely, a significant reduction of drivers on the road was noticed. Toll bridges, fuel consumption, and fuel taxes which are one of the most important sources of revenue generation have been severely affected. Many transportation departments experienced revenue drop.

Impact on Road Safety

Usually, less percentage of traffic would result in fewer collisions and injuries. Different key factors such as stress and anxiety due to pandemic, rise in drugs and alcohol consumption while driving, less traffic which leads to speeding and stunt driving may have a negative effect on the road safety. One of the researchers used an interactions model and identified that a potential person and situational factors involved could affect road safety during and after the pandemic.

Long-term Impacts on Road Transport Digitization

1. The present pandemic might persuade state DOT's to put an end to cash tolling and human tolling collectors to minimize the human-to-human

interaction. Maryland Gov. Larry Hogan on March 17th directed the officials to put an end to toll-takers (temporarily eliminating cash option) as a part to reduce the spread.

2. The use of mobile data is proven to be beneficial in tracking the spread of the pandemic worldwide. This practice has raised questions about privacy rights and invasion of civil liberties once the pandemic is over. Hence, the use of traffic signals in predicting the spread has widely researched.

Autonomous Vehicle

During the progress of the outbreak, many sectors in the Chinese society have implemented AI (Artificial Intelligence), big data and robotic services to control and prevent the spread of the pandemic. Autonomous technology which incubates AI have lessened the burden of the Corona virus by transporting the medical supplies and food to medical professionals. General Manager of Baidu Intelligent Driving said that "Having been through the pandemic and supported the front line, we realize 'automation' and 'intelligence' are the best solutions for humans to respond to large-scale emergencies". Report from Tech Crunch states that Starship Technologies have initiated robot food delivery service using autonomous vehicles in Tempe, Arizona. The company has accelerated its growth in the plans as the demand for the contactless delivery has increased rapidly over the past few months.

VIII. CONCLUSION

Individuals and their behavior will be forever changed because of COVID-19. Road Transportation, accordingly, will likewise never go back to be the same. The extent to which it will change won't be known for some time. This should instigate the transportation agencies, governments and stakeholders to watch patterns, anticipating the future effects and to plan for a stronger future. Several policies and measures have been introduced and practiced, tackling the impacts of COVID-19 on the Road Transportation sector throughout the world. Nevertheless, planning policies and measures in a comparatively broad and seamless fashion have been moderately under-researched. There are many countries such as China, Australia and New Zealand which have adopted strong measures and have come out of the pandemic. In China, the pandemic was under control in over a month, however, countries like America, India, Iran, and many countries in Europe the situation is getting worse every passing day. As of 3rd November 2020, more than 100,000 daily cases were reported in the USA. What one



sector can learn from another sector and how different nations are introducing policies are very important in these difficult circumstances.

REFERENCES

- [1]. Albers, S. and Rundshagen, V. (2020). "European Airlines' Strategic Responses to the COVID-19 Pandemic", *Journal of Air Transport Management*, Vol. 87.
- [2]. Arab Trade Union (2020). "International Transport Workers' Federation and Danish Trade Union", Impact of The COVID-19 on the Transport Industry.
- [3]. Arvind Kumar and Sankar, T.P. (2020). "International Transport Forum", France.
- [4]. Karthik Subramanya and Sharareh Kermanshachi (2021). "Impact of COVID-19 on Transportation Industry: Comparative Analysis of Road, Air, and Rail Transportation Modes". <http://www.researchgate.net>.
- [5]. Sam Mehet (2020). "Survey: How has COVID-19 Impacted Bus Operations in INDIA?", Intelligent Transport, Russell Publishing Ltd. United Kingdom.
- [6]. UITP (The International Association on Public Transport) (2020). Advancing Public Transport, and world Bank, Statistics Brief Publication, Belgium.