



Study on the impact of COVID-19 on public transport ridership

Shruti Badoni Rawat

shruti11badoni@gmail.com

Himgiri Zee University, Dehradun, Uttarakhand

Vikram Kaintura

shruti10badoni@gmail.com

Himgiri Zee University, Dehradun, Uttarakhand

ABSTRACT

India's public transport systems are among most heavily used in the world. Public transport is the primary mode of road transport for most of the citizens of India. This Covid-19 crisis has crippled all sectors of the economy across the world. One of the worst affected sector by this pandemic is public transport. During the lockdown, the bus services, metro, trains as well as flights were completely stopped by the Government of India. Nobody was allowed to travel even in private vehicles as it would have increased the risk of infection until and unless it was very important. Now, since the public transport operators are allowed to resume their services, they are focussing on how to overcome the losses they have met during this lockdown period. This lockdown has hit them seriously as people are concerned about their safety and moving out and travelling. This paper represents how much loss the public transport sector has faced during lockdown due to corona virus disease-2019 and what measures should public transport operators has to take to recover their loss.

Keywords: Public Transport, Covid-19, Lockdown, Breakdown In Economy, Declined Ridership

1. INTRODUCTION

One of the important factor for the development of nation's economy is public transport. India's transport sector contributes 6.4% to the GDP of the country. The present pandemic situation has badly affected the economy of the world. Due to COVID-19, public transport has suffered a lot. Government stopped the usage of public transport during the lockdown as it can be one of the major source of transmitting the virus from one person to another. In public transport following social distancing norm is really challenging as major part of the total ridership is formed by the standing passengers. This ban during lockdown has caused significant breakdown on the financial conditions of the public transport sector followed by nation's economy.

The bus sector is one among the other public transports which plays an important role in contributing to nation's economy as it is the most preferred mode of transport followed by train since it provides end- to-end services. Train is another mode of transport especially preferred by lower class and middle class people for long journeys as it's fare is reasonably cheaper compared to air transport. But in all these modes of

transportation people travel really close to each other hence, Government stopped public transport at the time of first lockdown was imposed i.e., on 25 March, 2020 to avoid any loss of life due to COVID-19.

This lockdown has a major affect on the life of citizens of India as people who stuck at different places away from their hometown have to suffer due to unavailability of proper transport facilities. Citizens of India are largely dependent on public modes of transport. Buses are the most convenient mode of transportation in urban cities. More than 90 million people travel by buses every day, metro is one of the popular modes of transport as it makes the journey congestion free and is also time saving compared to buses. Delhi Metro carries more than 6million passengers per day. Delhi Metro Rail Corporation (DMRC) suffered a loss of around Rs 1,609 crore due to the closure of Metro services because of the COVID-19 pandemic. Delhi Metro services were shut on March 22 and resumed on September 7. Full-fledged normal operations resumed on September 12. On the first working day of Metro after lockdown the total ridership stood at around 250,000 which was nowhere close to 6million average daily ridership of Delhi Metro. Indian Railways, transport 23 million passengers and 3 million tonnes of freight daily (GOL 2015).

Now, people are afraid of travelling in public transport as they fear that travelling in them may increase their chances of getting affected by the corona virus which is another reason of the breakdown in the financial condition of public transport agencies. Citizens are preferring either personal vehicles or work from home. Many companies have asked their employees to use private vehicles as it will reduce the risk of getting infected by the virus. This has resulted in a sudden decrease in the usage of public transport.

So, to overcome the loss faced by public transports due to pandemic different modes of transport has doubled their fares. This increase in fare has directly affected the ridership's mode of choice of communication. Now, public transport system has to build the trust among the citizens of the country. This can be done by introducing the COVID-19 safety labelling for public transport which will indicate that safety measures are being followed. Another is keeping all modes of public transport clean and should be sanitized after completion of each round. Standing passengers should not be allowed to maintain social distancing.

2. LITERATURE REVIEW

This section discusses the previous studies carried on the impact of pandemic on public transport ridership. Such studies focussed on the detailed research to find out how COVID-19 has affected the usage of public transport before and during the pandemic. What’s the future of mobility, after COVID? Public transport is not going to shutdown. It’s a vital link in our lives. In India, the situation will be immensely challenging. Up to a point there is only so much precautions that can be taken our lives depend on it. (Brian De-Souza, 04April, 2020). India’s economy head for double-digit decline as virus spikes. India’s economy has been affected by corona virus pandemic. In August, RBI said private spending on discretionary items had taken a known, especially on transport services, hospitality, recreational and cultural activities. (Anirban Nag, September 18, 2020). Govt. plans further stake sale in IRCTC, invites bids from merchant bankers by Sep 10. The government currently holds 87.40% stake in IRCTC. To meet Sebi’s public holding norm, the government has to lower it’s stake in the company to 75%. (PTI, August 20, 2020). Rethinking India’s public transport after the COVID-19 lockdown is over. Enhancing the safety of bus transport will be the biggest challenge to redefining urban mobility in the aftermath of the pandemic. Meeting staff expenses has emerged as the biggest financial challenge. Typically, salaries account for almost half the expenses of public bus operators. Servicing debt repayments came up as the second most important issue. (Gerald Olliver and Nupur Gupta, May 26, 2020). Effects of COVID-19 on Transportation demand. Transportation sector has been one of the primary victims of COVID-19. Due to lockdown in many countries, the demand for passenger transport has been adversely hit. Citing higher risk of community spread of the virus in buses, many city/state/national governments issued guidelines for public transport operators. (Mr. Arvind Harikumar, 08 April, 2020). COVID-19 has completely torpedoed the transportation sector. Due to restrictions during lockdown almost 98% of bus services were completely shutdown which led to no revenue generation. This pandemic has demonstrated the important role that public transit plays in providing basic mobility, incurring commuting by essential workers, and errands by non-drivers living in isolated neighbourhood. The pandemic temporarily reduced all types of travel, so traffic congestion, parking problems and vehicle pollution do not seem to be major problems right now.(Todd Litman, June 12, 2020).

3. COMPARATIVE ANALYSIS OF LOSSES DUE TO LOCKDOWN FOR THE YEAR (2017-2020)

India’s economic recovery prospects have worsen after the pandemic hit the country. According to the latest report by economists and global institutions India’s growth production is undergoing through an immensely declined situation as compared to the previous year’s growth.

- Goldman Sachs Group Inc. sees the economy shrinking by 14.8% for the year March 2020-21.
- The Organization for Economic Co-operation and Development estimates a contraction of 10.2%.
- 9% contraction in Gross Domestic Product is estimated by Asian Development Bank.

The impact of COVID-19 had brought the global economy to a standstill.

- 70 million people used to travel in public transport in India everyday before corona virus disease.
- The World Bank estimated that financial losses due to pandemic could amount up to Rs 1.5 lakh crore for the public bus sector.

- Indian Railway transports 23million passengers and 3million tonnes of freight everyday.
- Indian Railways has suffered a loss of Rs 6,500 crore during the first two phases of lockdown.
- Indian Aviation Industry has suffered a loss of USD 3-3.6 billion for the June quarter.
- Air India’s net loss stands at around Rs 2,570 crore.
- International Airlines Organization announced that corona virus is expected to affect more than 29 lakh jobs in the Indian aviation and dependent departments.

Metropolitan cities Mumbai, Delhi, Kolkata, and Chennai saw a devastating effect in the usage of public transport.

- In Mumbai, 28 lakh people take bus service everyday.
- Approximately 7.5 million people travel by the sub-urban train everyday.
- Mumbai Metro carries 0.5 million passengers daily.
- Delhi Metro carries more than 1.8 million passengers everyday but during the pandemic it suffer a loss of Rs10 crore per day.
- In Delhi, 41.90 lakh people prefer using bus on a daily basis.
- In Kolkata, city bus service had an average ridership of 1.15 lakh passengers per day during March it was close to zero.
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- Kolkata Metro helps 7 lakh passengers to reach their destination daily but it reduced to 20,000 on the first day after the service resumed.
- Chennai Metro's daily ridership is 125,000 but after the lockdown is over it touches an average of 1lakh riders per day.
- On an average 6 million passengers travel by bus in Chennai which is almost half of it’s population. Chennai Transport Corporation lost Rs 1,200 crore during lockdown.

Transport sector has been suffering a lot as people are avoiding moving out from their houses except in case of emergency. Millions of people lost their jobs as so many companies shut down because they were not able to overcome the losses due to lockdown. These employees were mostly public transport users so as they lost jobs, indirectly public transport sector suffered. Many state buses operators are demanding hike in fare as they are in financial distress on account of the lockdown. Due to lockdown the Indian economy shrank 23.9% (biggest contraction on record in three decades). Transportation and hotels sank 47%.

4. GRAPH SHOWING GDP OF INDIA (2018-20)

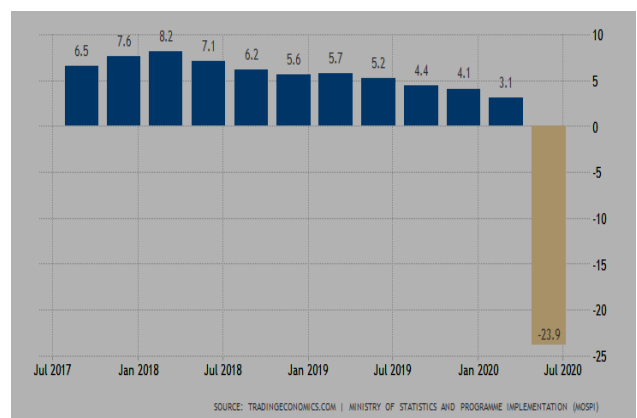


Fig. 1: GDP of India



Fig. 2: Empty bus during lockdown in Delhi



Fig. 3: "Do not sit here" stickers in alternate seats to maintain social distancing



Fig. 4: A worker cleaning metro - following safety measures



Fig. 5: Life in a local train after lockdown- Mumbai

5. CONCLUSION

The paper discuss about the impact of COVID-19 on the public transport ridership. The study shows that how pandemic is

responsible for the severe loss in country's economy as India's transport sector contributes 6.4% to the GDP of the country. The conclusion derived from the study are highlighted below

- Public transport systems have to build the trust among it's passengers so that they restart communicating in them.
- To overcome all the losses faced by public transport due to the lockdown their department should introduce COVID-19 safety labelling which will indicate that safety measure are being followed.
- No passenger should be allowed to remove mask inside or at the stations of the public transport.
- Deep cleaning of the touch points like seats, railings, escalator, fare collection gates, restrooms, ticket counters, luggage check points, grab handles should be performer regularly in metro rail. Trains and underground stations should have proper ventilation to maintain the optimum temperature. Different doors should be assigned for boarding and alighting as this will help in maintaining social distancing inside and outside the train.
- Buses with two doors passengers should be allowed to enter and exit from different gates. Bus stops should be cleaned properly and safe standing distances should be marked to avoid contact with each other. Buses should be sanitized after each trip. Ticket collector must allow digital payments to buy tickets. Seats should be marked where the passenger has to sit so as to maintain social distancing.
- Proper transparent driver-cabin separator should be propped to maintain driver and passengers' safety.
- Contactless payment method should be introduced to minimize interaction.

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