



*Objective:*  
**TO ORGANIZE THE  
MOBILITY SERVICES OF  
THE CITY.**

**TEAM MEMBERS**

1. ALLEN BINU
2. DIYA BIJU
3. NEGHA AJAYAGOSH
4. RAMKRISHNA K

## **MAJOR DRAWBACKS OF KOCHI METRO**

- Accessibility of the metro stations.
- The price of the metro.
- Lack of public awareness and knowledge.
- Absence of seat reservation system in the metro.
- Absence of a proper time schedule open to the public.
- Lack of proper parking slots.

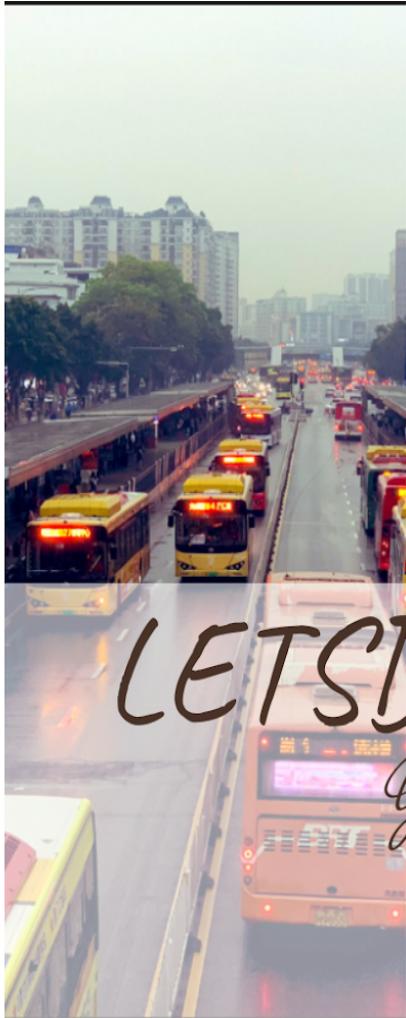


## **PROBLEMS FACED BY THE GENERAL TRANSPORTATION SECTOR**

- Pollution.
- Traffic blocks.
- Risky roads.
- Time loss.
- Absence of time schedule for public transportation.
- The inability to track and allot more buses as per the demands.
- Absence of a single wholesome platform to collaborate all the sub-disciplines under the transportation sector.
- Increasing private vehicle density.

Shall we address all these issues...???

The solution is here : .....



LETSDRYV  
*Your travel partner...*



'LETS DRYV' is an online platform in which the user can plan his journey from the starting point to the destination from the safety of his/her home. This platform essentially connects the unorganized transportational sub-disciplines under a single umbrella.

Let's know how the system works,

The data regarding all the available routes and alternatives are stored in the databases and the most economical and fastest route suggestions are proposed by AI/ML.

## **Case 1:**

Let Anna be a resident of Muvattupuzha

**Starting point: Muvattupuzha**

**Destination point: LuLu Mall**

### **Anna from Muvattupuzha to LuLu Mall**

Economic (Class I)

Home to Muvattupuzha Stand: **Cab** (15mins - Rs 120)

Muvattupuzha to Vytilla Metro Station: **KSRTC (LS-Ordinary)** (80mins - Rs 43)

Vytilla Metro Station to Edapally LuLu Metro Station: **Kochi Metro** (25 mins Rs 40)

**Total Time = 120 mins**

**Total Fare = Rs 203**

Economic (Class II)

Home to Muvattupuzha Bus Stand: **Auto** (25mins - Rs 70)

Muvattupuzha to Vytilla Jn: **KSRTC (LS-Ordinary)** (80mins - Rs 43)

Vytilla to Edappally Jn: **KSRTC Bus** (via Palarivattom Byepass) (35 mins - Rs 13)

Edappally to LuLu Mall: **Walk** (5 mins)

**Total Time = 145 mins**

**Total Fare = Rs 126**

**Economic (Fastest)**

Home to Muvattupuzha Stand: **Cab** (15mins - Rs 120)

Muvattupuzha to Vytilla Metro Station: **KSRTC (LS- Fast Passenger)** (50 mins - Rs 50)

Vytilla Metro Station to Edapally LuLu Metro Station: **Kochi Metro** (25 mins Rs 40)

**Total Time = 90 mins**

**Total Fare = Rs 210**

### Premium

Home to Muvattupuzha Stand: **Cab** (15mins - Rs 120)

Muvattupuzha to Vytilla Metro Station: **KURTC (LS-Fast Passenger A/C)** (45mins - Rs 100)

Vytilla Metro Station to Edapally LuLu Metro Station: **Kochi Metro** (25 mins Rs 40)

**Total Time = 85 mins**

**Total Fare = Rs 260**

### Other Options:

Home to Muvattupuzha Stand: **Cab** (15mins - Rs 120)

Muvattupuzha to Thykoodam Metro Station: **KSRTC (LS- Fast Passenger)** (45 mins - Rs 50)

Thykoodam Metro Station to Edapally LuLu Metro Station: **Kochi Metro** (30 mins Rs 50)

**Total Time = 90 mins**

**Total Fare = Rs 220**

Home to Muvattupuzha Stand: **Cab** (15mins - Rs 120)

Muvattupuzha to Pettah Metro Station: **KSRTC (LS-Ordinary)** (75mins - Rs 43)

Pettah Metro Station to Edapally LuLu Metro Station: **Kochi Metro** (35 mins Rs 50)

**Total Time = 125 mins**

**Total Fare = Rs 213**

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## **Case 2:**

Let Ram be a resident of Aroor

**Starting point: Aroor**

**Destination point: Thrissur**

### **Ram from Aroor to Thrissur**

Economic (Class I)

#### **(via Train)**

Home to Bus Stand: **Cab** (15mins - Rs 120)

Aroor to Elamkulam Metro Station: **KSRTC (LS-Ordinary)** (35 mins - Rs 20)

Elamkulam to Ernakulam South: **Kochi Metro** (10mins - Rs 20)

Ekm South Metro Station to Ekm South Railway Station: **Walk** (5 mins)

Ekm South to Thrissur Jn: **Train Sleeper Class** (70 mins - Rs 70)

Thrissur Railway Station to Destination: **Cab** (15mins - Rs 120)

**Total Time = 150 mins**

**Total Fare = Rs 350**

#### **(via Bus)**

Home to Bus Stand: **Cab** (15mins - Rs 120)

Aroor to Thrissur Bus Stand: **KSRTC (LS-Fast Passenger)** (140 mins - Rs 100)

Thrissur Railway Station to Destination: **Cab** (15mins - Rs 120)

**Total Time = 170 mins**

**Total Fare = Rs 340**

Economic (Class II)

#### **(via Train)**

Home to Bus Stand **Auto** (25mins - Rs 70)

Aroor to Vytilla Jn: **KSRTC (LS-Ordinary)** (35 mins - Rs 20)

Vytilla Jn to Ernakulam South: **KSRTC (LS-Ordinary)** (25mins - Rs 15)

Ekm South to Ekm South Railway Station: **Walk** (10 mins)

Ekm South to Thrissur Jn: **Train Sleeper Class** (90 mins - Rs 55)

Thrissur Railway Station to Destination: **Auto** (25mins - Rs 70)

**Total Time = 210 mins**

**Total Fare = Rs 240**

**(via Bus)**

Home to Bus Stand: **Auto** (25mins - Rs 70)

Aroor to Vytilla Jn: **KSRTC (LS-Ordinary)** (30 mins - Rs 18)

Vytilla Jn to Vytilla Mobility Hub: **Walk** (5 mins)

Vytilla to Thrissur Jn: **KSRTC (LS-Fast Passenger)** (140 mins - Rs 65)

Thrissur Bus Stand to Destination: **Auto** (25mins - Rs 70)

**Total Time = 225 mins**

**Total Fare = Rs 228**

**Premium**

**(via Train)**

Home to Bus Stand: **Cab** (15mins - Rs 120)

Aroor to Elamkulam Metro Station: **KURTC (LS-Ordinary)** (30 mins - Rs 65)

Elamkulam to Ernakulam South: **Kochi Metro** (10mins - Rs 20)

Ekm South Metro Station to Ekm South Railway Station: **Walk** (5 mins)

Ekm South to Thrissur Jn: **Train A/C IIInd Tier** (50 mins - Rs 710)

Thrissur Railway Station to Destination: **Cab** (15mins - Rs 120)

**Total Time = 125 mins**

**Total Fare = Rs 1035**

**(via Bus)**

Home to Bus Stand: **Cab** (15mins - Rs 120)

Aroor to Thrissur Bus Stand: **KURTC (LS-Fast Passenger)** (120 mins - Rs 520)

Thrissur Railway Station to Destination: **Cab** (15mins - Rs 120)

**Total Time = 150 mins**

**Total Fare = Rs 760**

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### **Economical-**

- **Class 1:** Utilizing the scope of Kochi metro.
- **Class 2:** Utilizing other cheap forms of transportation. (bus, train)

### **Fastest-**

- Shows the fastest alternative.

### **Premium-**

- Premium mode of transport using KURTC.
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## **Features embedded**

1. MOST ECONOMICAL ROUTE (▲)
2. FASTEST ROUTE (▲)
3. CUSTOM ROUTE (▲)

- On selecting the green triangle the user will be directed to the most economical route and its features.
  - On selecting the red triangle the user will be directed to the fastest route.
  - By selecting the blue triangle the user can design their path of travel.
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# **How do we organize them....?**

## **CAR**

We shall form collaborations with Uber and city taxi worker associations and bring their services online.

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## **BUS**

Shall form collaborations with KSRTC and other private local bus services to hoist their tickets online and shall request an instant ticket cancellation with full or reasonable refund.

In turn to this service the bus services shall be benefited with the data regarding the public demands for bus services in the city routes on the basis of the number of booking.

KSRTC can hence reschedule their routes based on the public demand and hence make profit.

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## **AUTO**

The unorganized auto rickshaw workers will be suggested to register under the platform. The drivers will be assigned with the tasks based on the registrations received and they will be prepaid for their services. The payment received from the user shall be distributed judiciously.

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## **CYCLE**

The cycle dealers, shopkeepers and metro cycles in all the mobile cities shall be connected and will be instructed to deliver cycles to the user within 3 km sq area from

the shop. The platform will in turn assess the user demands and shall report the hot points to the metro. The location of the metro cycles will be updated in the platform making it accessible for the public.

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## **RENTED CARS**

Shall form collaborations with rent a car dealers and avail these cars when and where the user demands.

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## **METRO**

We shall collaborate with the metro and make the metro timings accessible to the public. We shall suggest the most economical, and fastest route and shall help with the seat reservations in the metro. We shall prefer metro and suggest its maximum utilization since:

- Metro can reduce the pollution since it works on electricity and hence can significantly upgrade the air quality of the city.
- It can help us reduce the heavy traffics in the city and it saves time.
- Metro is a premium mode of transport which has huge tourism possibilities.

We shall work with the metro cell to allot smart parking spaces for the users and shall arrange all their journey requirements.

## **Why should a service provider register under 'LETSDRYV....?**

- 'LETDRYV' will make them an organized formal sector.
  - Provisions to apply for EPF (Employee provident fund).
  - Provision for ESI.
  - Provision for pension benefits.
  - Fixed working hours.
  - Less pressure.
  - Updated to the latest technology(no digital divide).
  - Increased income.
  - Credit cards.
  - Provisions for loan sanction (since the platform can stand as the bystander).
  - The service provider will be given paramount training on basic etiquette.
  - Awareness programs and cultural events will be conducted for their family members.
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## **Why should you use this platform..?**

- Once you have done the payment the only favour we request you is to be present at the starting point on time, all the other arrangements shall be done by the team.
  - Saves a lot of time.
  - Reduces tension/stress.
  - Safe journey.
  - Can choose between the fastest, most economical or design their routes themselves.
  - Can have a clear picture of the time schedule of mobility services in the city.
  - From now on no need to save the number of auto drivers or cab drivers just 'LETSDRYV'.
  - The user can choose between the payment options and they need not carry liquid money in hand.
  - The user shall not worry about the availability of the parking slot, just 'LETSDRYV' we shall handle it.
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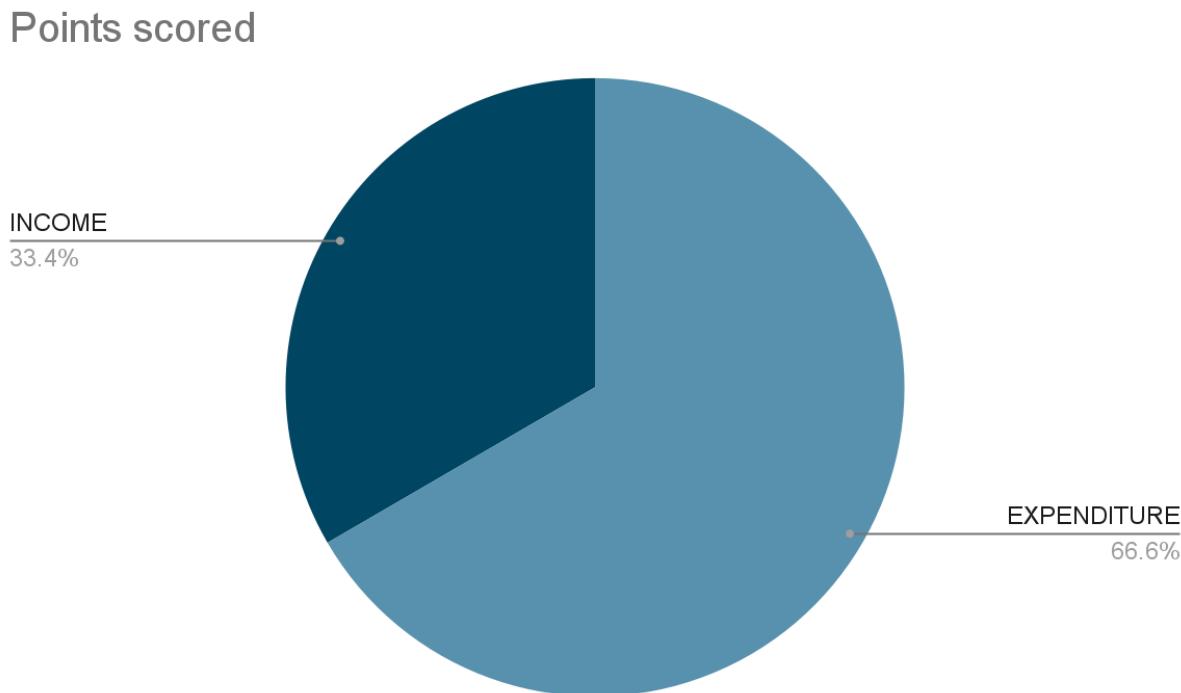
## THESE PROBLEMS ARE REAL ....

People will start depending on public services rather than private vehicles hence decreasing pollution, reducing traffic blocks and saving time. As for the service providers, they will get more service calls and will be updated with the data regarding the hot points, routes and peak time hence resulting in more revenue and shall rejuvenate the public sector essential services like KSRTC and METRO and help them tide over the debt burden.

*"KSRTC's income per day is Rs 4.39 crore but the expenditure amounts to Rs 8.76 crore. These costs include pensions and salaries. The daily loss of KSRTC is Rs 4.37 crore. It was made clear that the loss is for the months of October, November and December 2021"*

-Mathrubhumi 27/03/2022

## DAILY FINANCIAL STATEMENT OF KSRTC



## ANNUAL DEBT ANALYSIS OF KOCHI METRO

- “The loss of Kochi Metro has increased by Rs. 23 crores compared to the previous year. In 2020-21, the metro marked a loss of Rs 334.41 crores, according to the annual report. It was Rs 310.82 crores in 2019-2020”

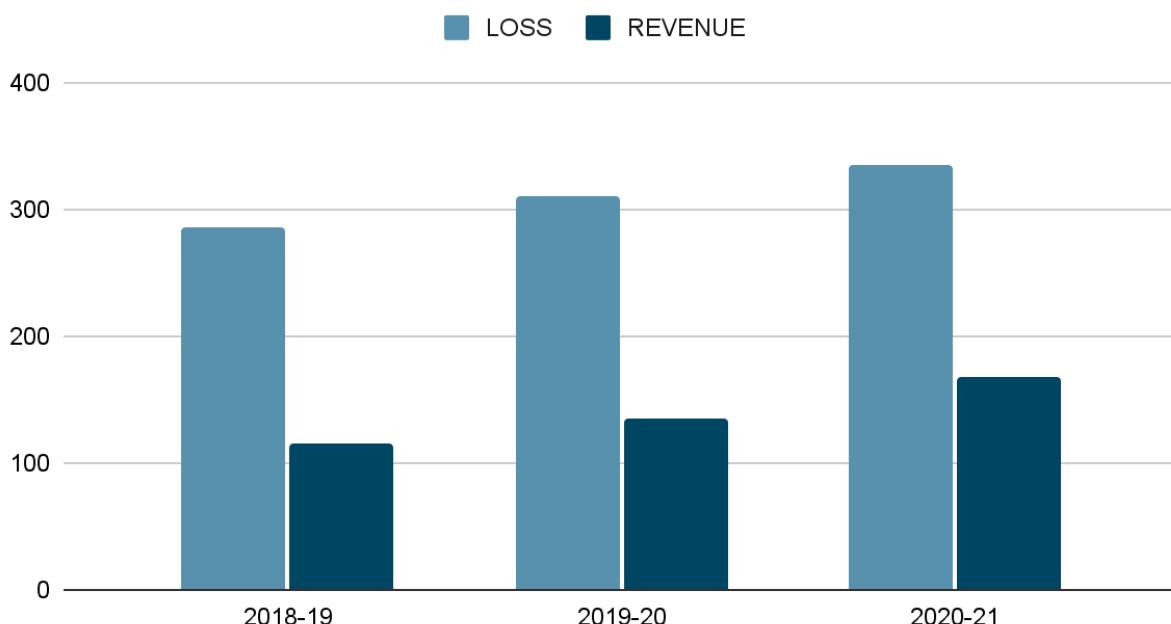
-Mathrubhumi 19/10/2021

- “During the fiscal 2019-20, KMRL reported a loss of Rs 310.01 crore. In the fiscal 2018-19, KMRL reported a loss of Rs 285.18 crore. While the total revenue generated by the Metro agency stood at Rs 134.95 crore, which includes box office revenue, the total expenditure for the year was Rs 115.77 crore”

-Times of india 12/12/2020

## LOSS AND REVENUE OF KOCHI METRO

Points scored



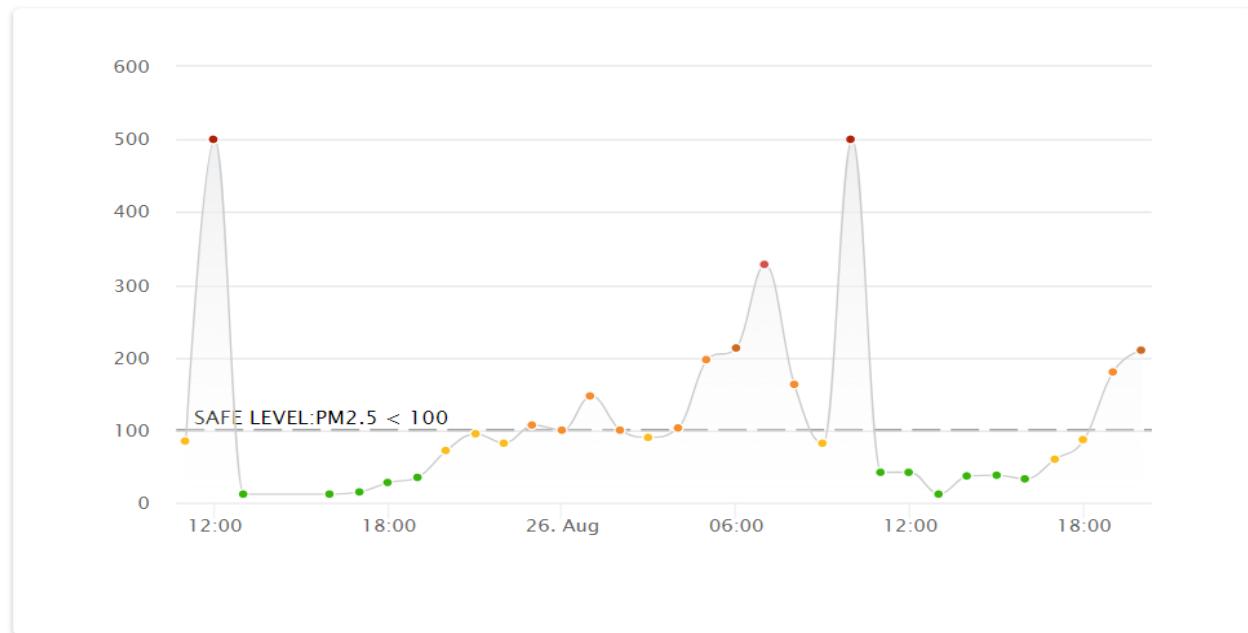
# AIR QUALITY INDEX KOCHI

The average air quality of Kochi city as on 25/08/22 and 26/08/22



PM2.5 AQI: 210 AT 8 PM

CHANGE CITY 



CITY	PM2.5 AQI ( $\mu\text{g}/\text{m}^3$ )	PM10 AQI ( $\mu\text{g}/\text{m}^3$ )
Khurja	97	127
Kishanganj	52	58
Kochi	134	87
Kohima	22	58
Kolkata	35	49
Kollam	44	60
Koppal	22	25
Kota	67	72

## **WORSENING TRAFFIC -KOCHI-NEWS REPORTS**

- “Year after opening of flyover, traffic snarls worsen at Kochi's Vytila Junction”  
-THE HINDU 9/01/2022
  - “Rain worsens Kochi's traffic woes”-Times of India 3/09/2019
  - “As lockdown gets lifted, traffic blocks haunt Kochi yet again”-Indian Express  
19/06/2021
  - “Kochi: Vaduthala traffic chaos continues”-Times of India 13/04/2022
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## **FUEL CRISIS-NEWS REPORT**

- “Already private bus operators have threatened to pull out from service from today (Tuesday) if the Government fails to provide them with diesel at the old price, i.e. if they are not to seek a fare hike in keeping with the latest price increase. What a one year fuel shortage is going to have on livelihoods across the board is a horrendous prospect indeed. Coupled with the latest fuel price hike all services linked to transport are bound to get crippled, not to mention the already soaring Cost of Living leading to an anarchic state that could bring the country to a virtual standstill. “-Daily News-28/06/22
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## PARKING SLOTS -A REAL TIME ISSUE

- “*Minus adequate parking slots, vehicles choke Kochi*”-Times of India 12/11/2019
  - “*Parking fury in Kochi*”-Indian Express 28/12/2021
  - “*Parking at will hinders traffic in Kochi*”-The new Indian express 20/04/2022
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## BUSINESS MODEL

Though the platform is proposed to be a non profit platform,The platform can make revenue if required .The ways of making revenue are:

- 2% service charge from the user.
- 4% commission from the car,auto,rented car dealers.(public transport sector shall be free from this provision).
- Shall provide loans to those car,auto,rented car dealers and shall give incentives based on the performance.The interest received from loans will be a major source of income.
- Shall collect commission for allotting parking slots.
- Tips from the users shall be accepted.

## **DISCOUNT PROVISIONS UNDER DISCUSSION**

Discounts shall be provided to regular commuters such as:

- Students (on working days).
  - Teachers(on working days).
  - Doctors ,Nurses and Public health workers (all days).
  - Senior Citizens.
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On providing discounts for regular commuters like students,teachers and public health workers the number of travelers shall increase exponentially hence increasing the revenue.

The senior citizens are usually accompanied by family.On providing them with discounts we may be able to increase the number of users.

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# An opportunity for India Inc

Corporate India's response to the country's job crisis has been more symbolic than substantial



C. SARAT CHANDRAN

We live in an age when businessmen command considerable influence in society. Ratan Tata, Mukesh Ambani, and Azim Premji are seen not as wealth creators but as nation builders. A good deal of business news today captures the imagination of the average citizen. A public issue, a trade agreement, the rise of a new corporate brand, a start-up, a collaboration is big news today. The guilt complex associated with making money has long since disappeared from the nation's conscience. India's stock markets are now in an explosive phase of growth and start-ups are reaping huge funds without any credible record of performance, largely on the trust of retail investors. Corporate India receives a reservoir of trust, goodwill and confidence from the nation and must return it in equal measure. Has India Inc lived up to those expectations? How much does an inclusive India figure in its vision?

#### **Response to job crisis**

Corporate India dreams big today. Brand power, digital technology, talent pools, scales of operations, and global connectivity are all part of its agenda. Yet, how much does the magnitude of India's jobless growth overwhelm the big business? Mahatma Gandhi's insight that "what we need is not mass production, but production by the masses" must be an enlightened vision of Indian business. Yet, the response of corporate India to the country's job crisis has been more symbolic than substantial. The reality is that much of India's blue-collar employment is generated in Small and Medium Enterprises (SMEs) and in its sprawling gig economy. Some 45% of India's manufacturing takes place in the sweat shops of garments units, hazardous chemical factories and in unsafe engineering workshops. The jobs thus created are sub-optimal with low wages and unstable working conditions. India's SME sector needs to modernise itself with the help of digital technology, professional management and better scale of operations. This is the 'new economy' and India's corporate sector can extend a helping hand across the aisle to help the SMEs achieve this transformation. That act must not be seen as large-heartedness but market-driven and backed by a strong value proposition.

The Indian SME sector has many hidden

case of Indian food, which is popular worldwide. Most Indian restaurants abroad are owned by individuals with limited resources for growth. The result is that India has not been able to create a McDonald's or KFC to bring Indian food to the world stage as a global business in scale and sophistication. How many corporates here have seen an opportunity in this space? Many big houses in India have rushed to invest in electric mobility. Why hasn't even one of them seen the prospects of globalising Indian food? That could have created a million jobs for Indians.

Across the world, the informal sector is steadily evolving into the formal sector in partnership with the organised industry which is creating innovative business models. The most visible example is that of Uber and Ola, which have brought hundreds of individual taxi owners on their platforms to create a win-win situation for both, and added value to the consumer as well. This model could now be replicated in other situations. The vegetable vendor who wheels his cart to neighbourhood homes could be part of an e-commerce company and provide last-mile connectivity. The shoe shine worker at the street corner could be brought under the fold of a multinational shoe company to upgrade his work and quality of his life. The results could be overwhelming. They both could then open a bank account, be eligible for loans and credit cards, and be part of the formal sector with increased income and fixed hours of work. For the companies, the partnership offers a recognition for a meaningful contribution to the welfare of the community.

#### **Learning from Taiwan**

One needs to only look at Taiwan to understand how a low-level economy can transform itself through technology and innovation and become part of a global value chain. A quarter of a century ago, Taiwanese SMEs were selling cotton shirts, plastic flowers and wooden toys. Today, they are producing memory chips and laptops and assembling smartphones. Foxconn is now the main assembler of iPhones in several Asian countries. Jeff Bezos, the founder of Amazon, said during his recent visit to India that Amazon plans to invest \$1 billion in digitising SMEs. The Government of India has launched an ambitious new e-commerce platform, ONDC (Open Network for Digital Commerce). This is a strategic vision which should unleash India's entrepreneurial dividend. A combination of these efforts must ensure that a job-enriched India is now within our sight.