Twitter Thread by Dawar Butt

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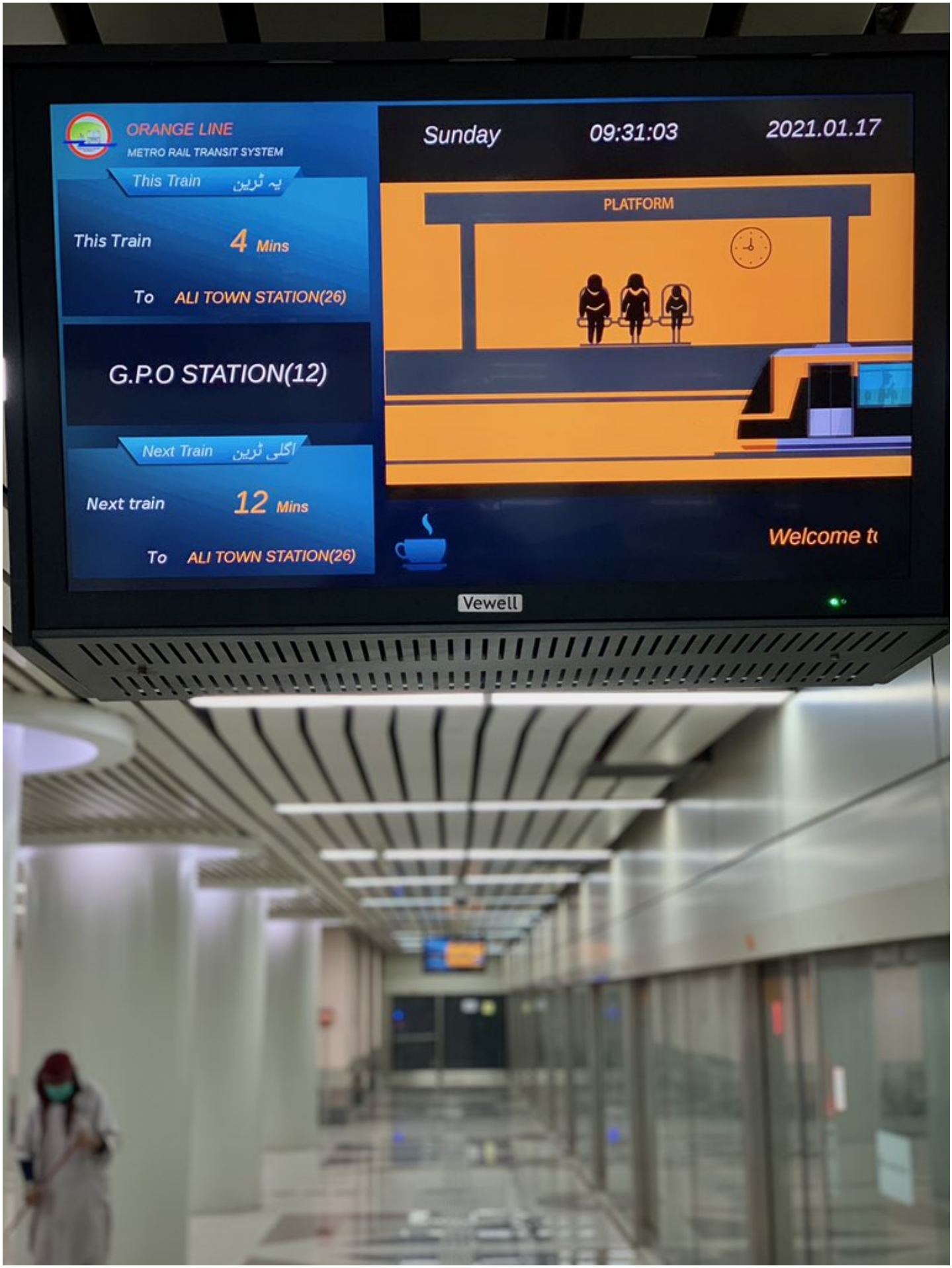
@theLahorewala

Long-thread: A Sunday morning well-spent exploring Lahore's Orange-line Light-rail metro train with @gulraizkhan.

One thing I can tell about the experience is that it was in nowhere any less than the best Metros in the developed West.



This project will remain divisive, and in no way I intend on converting anyone. Skip.

Neither will its utility increase nor decrease by this Twitter cost-benefits blabbering.

What I am truly happy about is that Orangeline is owned and being used by those who need it the most.

The cars we use have a Heater & AC. The new ones also have a cabin filter against pollution. They harm everyone outside but user is safe inside. Then cars also cause congestion and accidents.

We don't realise it while driving, but navigating spaces is important for everyone. https://t.co/cslnCL00zv

> What's the implication?
>
> Poverty has a KEY spatial dimension. If you are poor, you may not be able to reach the school and hospital you need. This is also why people live in katchi abadis or informal housing, if you can't afford to travel to jobs, you are out of luck.
>
> — Ayesha Shahid (@ayesharshahid) January 17, 2021

We know that cars, which serve less than 20% of all trips, are bad for our cities. Yet they have been getting disproportionately higher share in budgets in the form of allocations for Road in Transport spending.

A mass transit project flips this equation.

There is also very real loss that construction works of the project caused, which, we, as bystanders, cannot fully understand.

We need to move to inclusive infrastructural planning, rather cold-hearted bureaucratic logic which dictates that who loses.

https://t.co/XjHSUsKpjR

But, now, there's also this upper class outrage, which seemingly bangs head on a wall and comes up with new financial figures every time OLMT is mentioned, or how many Mehrans could be bought.

There's reason for it. They won't be using it. So, it's unnecessary; too costly. https://t.co/qrlWjSZXNr

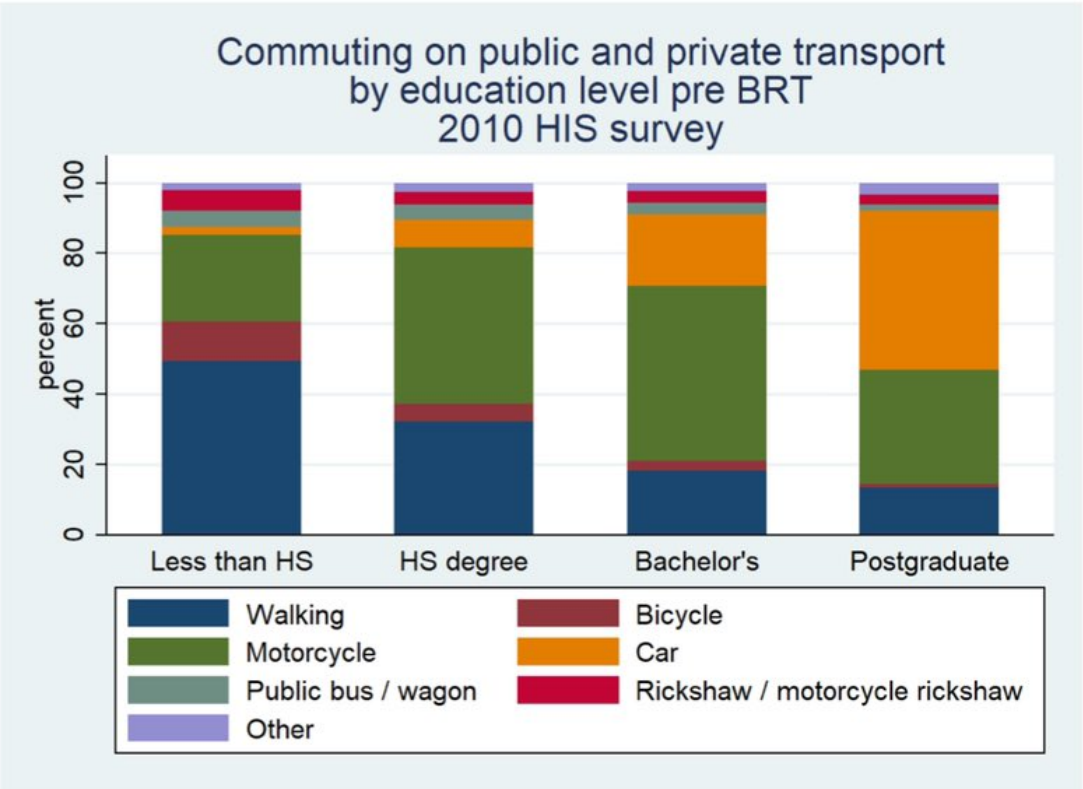
> Subsidy given = Rs. 5.6 bn (not 12 or 24 bn)
> Public saving = Rs. 60.4 bn
>
> Not much for me to say, when this has already been said by Punjab govt (link: https://t.co/3OOFOAGVuX) https://t.co/GBSJZRErZV pic.twitter.com/Di04xCtfo4
>
> — Dawar Butt (@theLahorewala) January 17, 2021

I am going to quote the IGC study on Lahore's Greenline BRT (Metrobus), which is one study that compared baseline v. impact.

Find here: https://t.co/2sxFaJe6mc

So, back to my previous point: the Educated upper-class did not use Public transport, because they had alternatives.

Figure 5

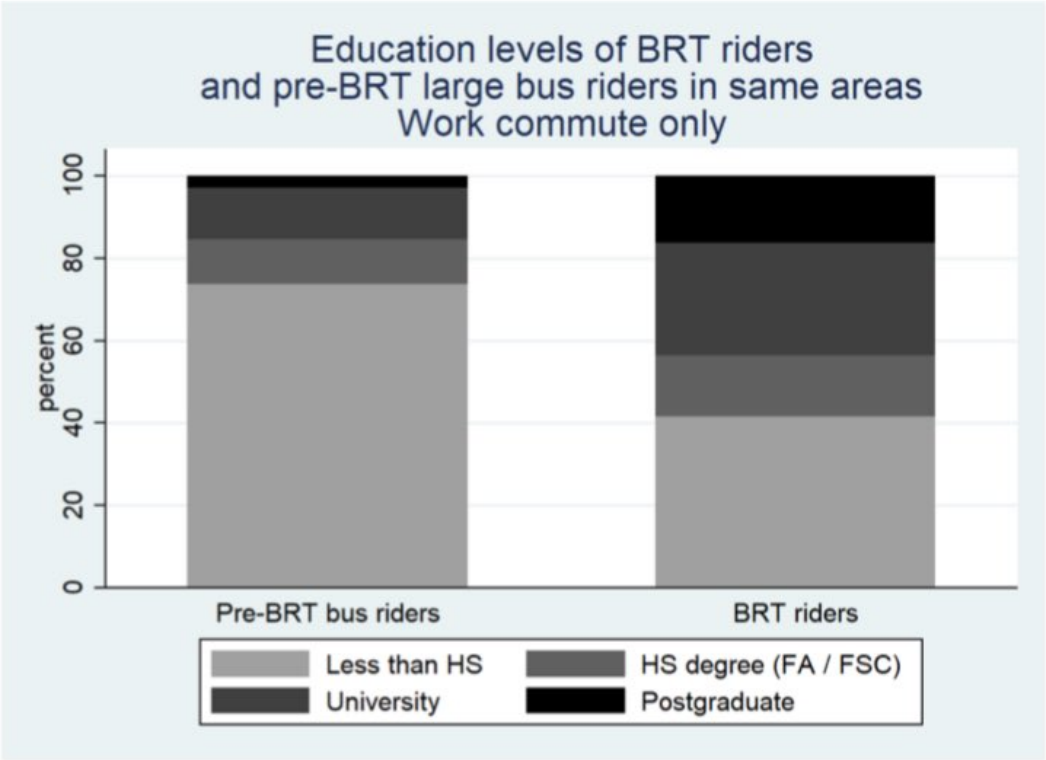


The BRT (Metrobus), however, managed to make a dent on this attitude.

The fact that a clean, safe, respectable mode of transport was available meant that even White-collar labour started using it.

Just imagine the improvement relative to blue-collar and working classes.

Figure 24

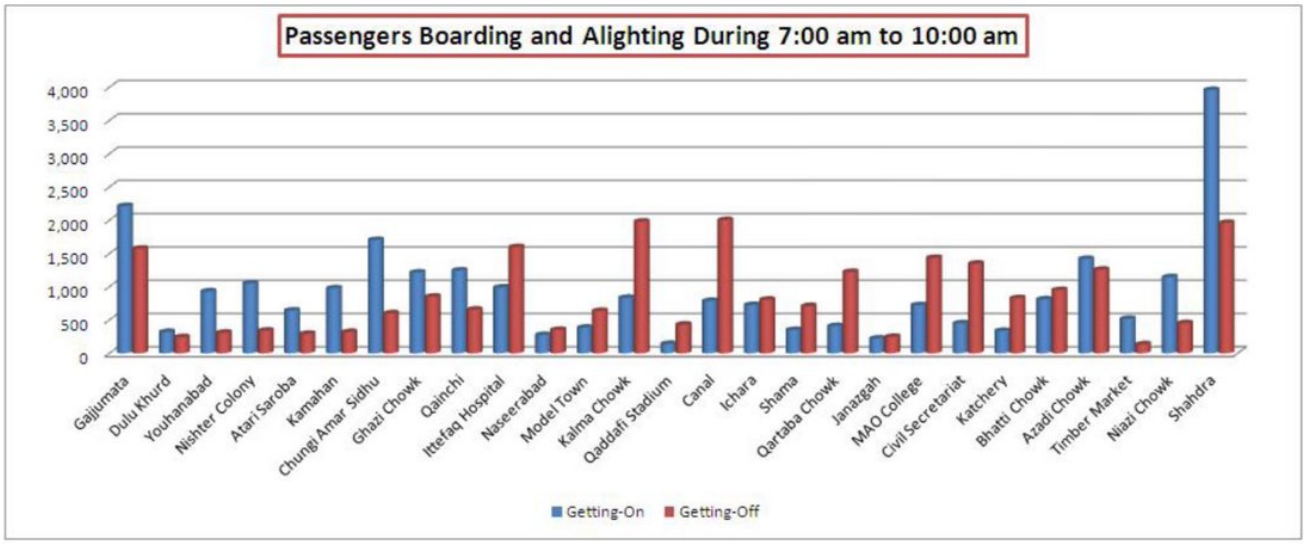


On the side, an unnoticed labour market transformation happened.

Lahore Metrobus actually serves 2 more districts, bringing in Labour through Shahdarah & Gajjumata, among them those who travel > 30 mins by vehicle to reach.

Arrive, work, go back home. No need to rent in city.

Figure 12: Administrative data: riders boarding and leaving BRT



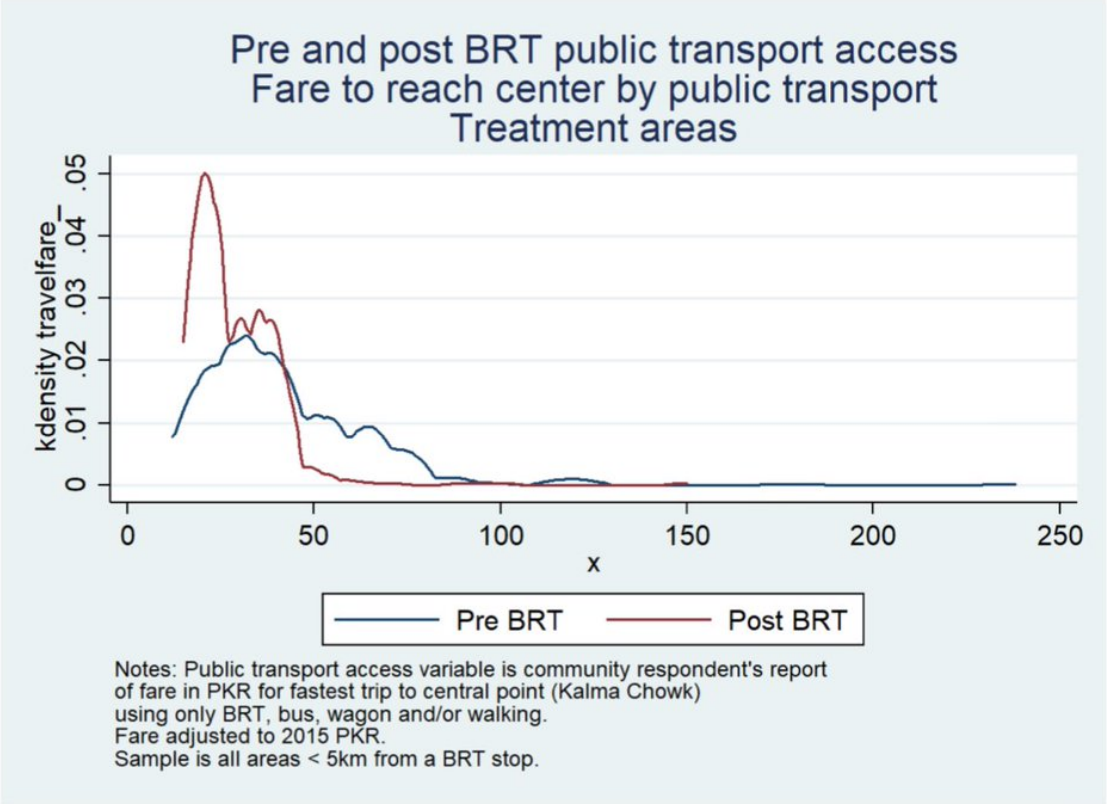
Source: Punjab Mass Transit Authority

Here's a byproduct.

For similar journeys to the Center of the city (i.e. Kalma Chowk), both
• travel fares declined to less than Rs. 50 (more so around Rs. 25)
• travel times reduced by 25-30 mins

This realignment due to the corridor benefits those who don't even use BRT.

Figure 19



Besides labour market, human capital, accessibility benefits, here's the most obvious.

A (assumed) change of 35,000 people to Metrobus from private transport is estimated to offset 6,000 tonnes of CO2/y.

This is equivalent to a mature 30 year old plantation of 40,000 trees/y.

Table 23: Approximate calculations of averted emissions from switching to public transport

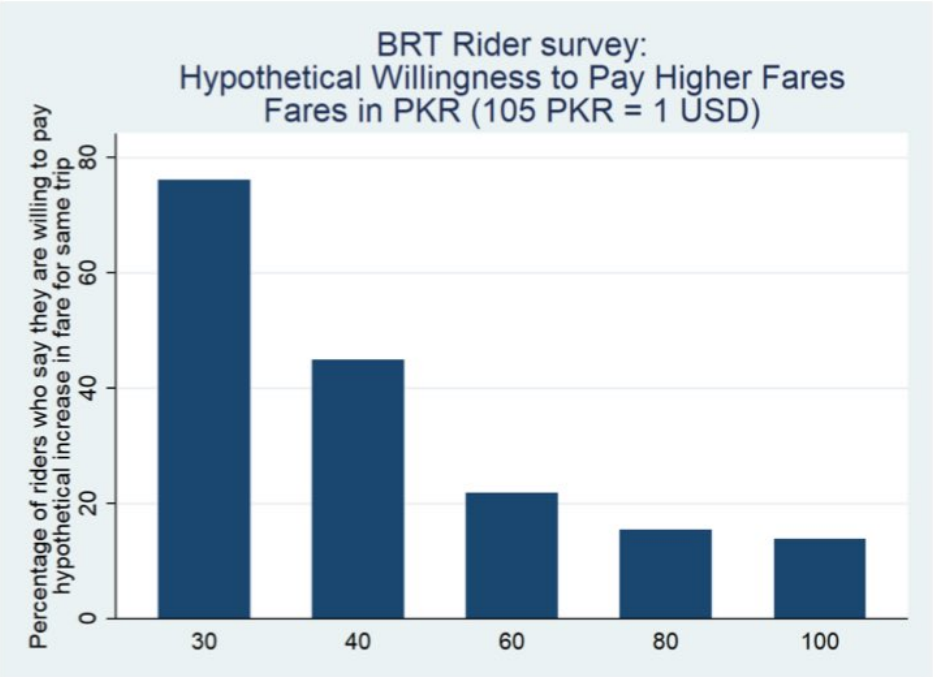
	Parameter	Estimate	Source
a	Bus - miles per gallon	3.4	US DOE
b	Bus - passengers per vehicle	50	Assumption
c	Bus - passenger miles per gallon	170	a * b
d	Motorcycle - miles per gallon	42	US DOE
e	Motorcycle - passengers per vehicle	1.5	Assumption
f	Motorcycle - passenger miles per gallon	63	d * e
g	Number of switchers	35000	HH survey regression estimates*
h	Mean travel distance (daily round trip)	9	Baseline HH survey (2010 HIS)
i	Proportion switching completely to public transport	0.55	Descriptive data from rider survey
j	Proportion of trip on private modes for mixed mode trips	0.5	Assumption
k	Gallons gasoline equivalent averted per mile traveled on bus instead of motorcycle	0.01	(1/f) - (1 / c)
l	Passenger-miles traveled on bus instead of motorcycle	228375	(1 - i*j) * g * h
m	Gallons gasoline equivalent averted - total	2,282	k*l
n	Grams CO2 per gallon gasoline equivalent	8,837	US EPA
o	Tons CO2 averted per working day	22	m*n / 900,000 grams / ton
p	Tons CO2 averted per year	5,914	o * 264 working days

Notes: Fuel economy data are based on data in US Department of Energy (2017).

These outcomes came from a Single BRT. The OLMT and Metrobus are a part of a 6 line synergetic network, which will create a feedback loop of linear increase in ridership and revenue.

Riders willingly pay more for good service.

Figure 25: Rider self-reported willingness to pay higher fares for mass transit



There’s much to be said about what can be done, in terms of design, service, ticketing, revenue.

That’s what Govt is for. It can either do what the rest of the world does, or claim that we are failing.

Now this has to follow to other cities. Don’t ruin cities with more cars. https://t.co/OtPbCfff5A

> Hire a design firm to create a visual identity and culture and make it bold and in your face. Here\u2019s a system to be proud of, Lahore. Don\u2019t let your politics make you lose sight of what is truly admirable. I\u2019m gonna stop before I choke \U0001f97a\U0001f687\u2764\ufe0f pic.twitter.com/jknHxZrSIB
>
> — Gulraiz Khan (@gulraizkhan) January 17, 2021

The KCR revival will cost $2.2bn. In any case, Karachi needs it.

Questioning the utility of such public transport projects is like prolonging your illness by delaying an important surgery.

Questioning how we do these projects deserves focus, more than what for.

Side note: When we got here, the place seemed like we’d seen the architecture somewhere. @gulraizkhan remembered it seemed like Berlin’s Hauptbahnhof (2nd pic) train platforms, but I think it’s closer to Alexanderplatz, Berin (3rd pic).

Last, but not the least, the jewel of OLMT, the Anarkali station.

Hardly says anything on the outside; can easily be understood to be Anarkali's resting place. But as long as the "Thanks LDA" posters torn at the bottom is infront of it, I think people can find it.

Replug: For all the routes envisioned to be under "#LahoreMetro" (all in all 200-300 km), refer to this map designed by @mahmooyo.

This only includes the 4 main routes. Secondary extensions and feeder routes (many of which are already active) are not included. https://t.co/DcO9hYTscZ

> Here it is: #Lahore's urban transit, fully illustrated, as proposed under multiple study reports over the years. Credits for the design go to @mahmooyo, who has also detailed the design-thinking aspects in a thread (link below); inspired by @gulraizkhan's Karachi transit ideas. pic.twitter.com/zxcmhasHql
>
> — Dawar Butt (@theLahorewala) December 13, 2020