

**“First and Last Mile Connectivity to Public Transport in Bengaluru”
Insights from the survey conducted by B.PAC**

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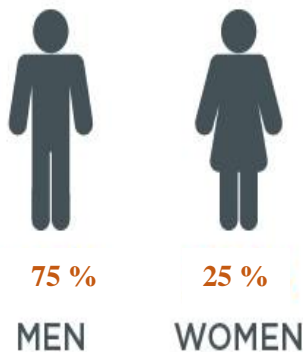
The growing number of private vehicles in the city has repeatedly highlighted the need for a better mass transport in the city. As of 2018, the share of private transport in Bengaluru exceeds the share of public transport by 3 % (Private share: 51 %, Public transport share: 48%). While it is pertinent to invest in public transport services, it is also equally important to focus on improving the connectivity to public transport – first and last mile. The lack of affordable and convenient first and last mile connectivity poses as a challenge to the commuters who take public transport. To understand the travel patterns of first and last mile connectivity of public transport users, Bangalore Political Action Committee conducted an online survey of 1129 respondents. The survey was conducted in the month of November-December, 2019. The survey was divided into segments –

1. Users of public transport and their first and last mile connectivity to public transport
2. Non users of public transport and their alternate mode of transport

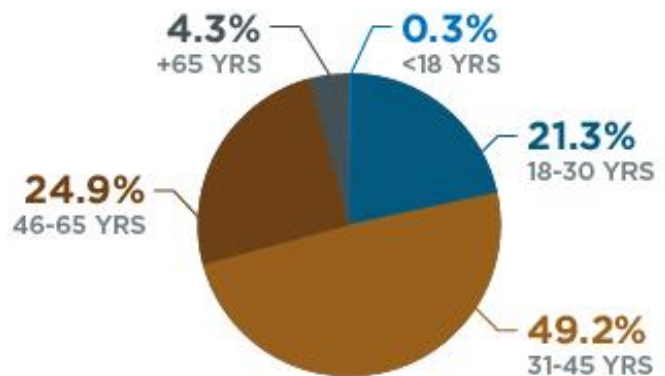
Respondents profile:

The demographic details of a total of 1129 respondents are summarized below

GENDER



AGE



PROFESSION



Users of Public Transport

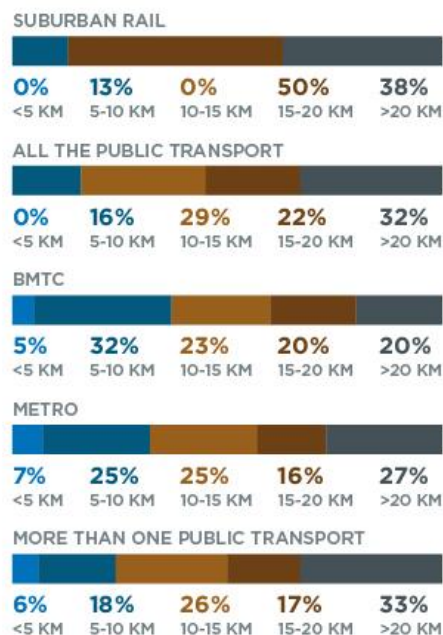
The connectivity to public transport in Bengaluru varies across the areas in the city. The 42 km metro line currently operational connects only a few areas in the city. Further, with the falling ridership of BMTC buses, there is an immediate need to improve the public transport connectivity in Bengaluru.

In the survey conducted, 69 % of the respondents were users of public transport. Of the 69 % users of public transport, 36 % use more than one public transport services in Bengaluru – BMTC/Metro/ Suburban railway



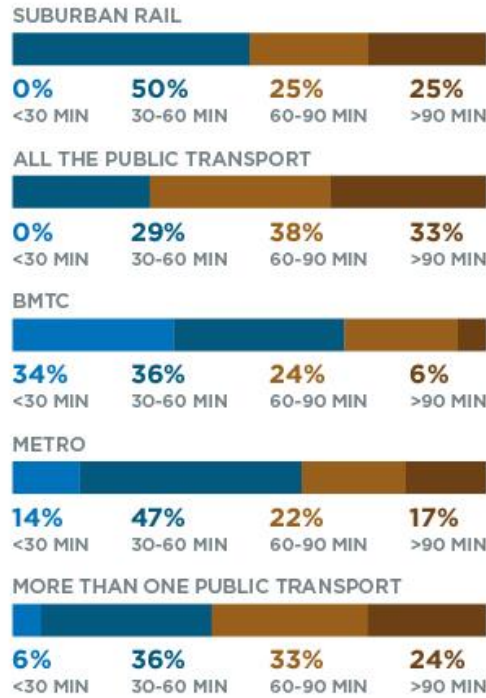
Distance travelled in public transport

28 % of the survey respondents said that they travel greater than 20 km on public transport. Of the total people who travel by Metro, highest number of people (27 %) travel greater than 20 km one way. Whereas, of the total number of travellers on BMTC, 32 % said that they travel between 5 km – 10 km one way. ~32 % of the people who said that they travel in more than one form/ all modes of public transport travel greater than 20 km one way.



Duration of travel on public transport

23 % of the travellers on public transport said that they travel greater than 90 minutes to reach their destination one way. The travellers on metro take an average of 30 – 60 minutes to reach their destination (47 %). Whereas 70 % of the travellers on BMTC said that they travel greater than 60 minutes to reach their destination.



First and Last Mile Connectivity to Public Transport

Walking:

- 53 % of the respondents who use public transport walk first mile and last mile to and from public transport.
- 29 % of the respondents walk either the first mile or last mile.



First mile connectivity other modes

In the survey conducted, 51 % of the first mile travel to public transport happens on shared mobility. There were differences observed in the travel pattern for men and women in choosing the modes for first mile connectivity. 65 % of the women said that they prefer shared mobility – auto, cabs, shared cab as their first mile connectivity to access public transport. Whereas, 50 % of the men prefer personal owned vehicles to cover first mile to access public transport.



50 % OF MEN USE PERSONAL MOBILITY AS THEIR FIRST MILE TRAVEL.

65 % OF WOMEN USE SHARED MOBILITY AS THEIR FIRST MILE TRAVEL.

Last mile connectivity other modes

68 % of the last mile connectivity from public transport happens on shared mobility. Similar to first mile connectivity, there were differences observed in the last mile connectivity between the two genders. 79 % of the women prefer shared mobility to reach their destination from public transport as against 62 % of the men. Rental vehicles usage are more amongst men as last mile connectivity option.

LAST MILE CONNECTIVITY



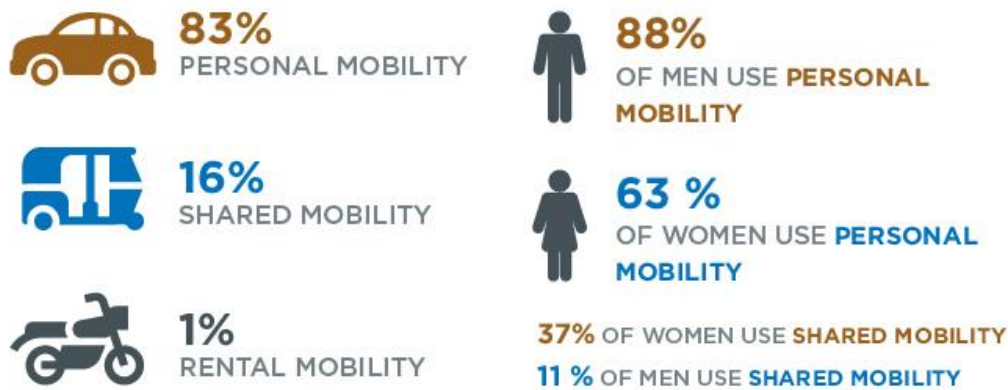
78.5 % OF WOMEN USE SHARED MOBILITY TO TRAVEL THEIR LAST MILE

Non users of Public Transport

In addition to understanding the travel patterns of first and last mile connectivity to public transport from the users of public transport, the survey also collected responses from the non-users regarding their alternate mode of travel to work/college and other destination. In the survey conducted, 31% of the respondents said that they do not use any modes of public transport in the city.

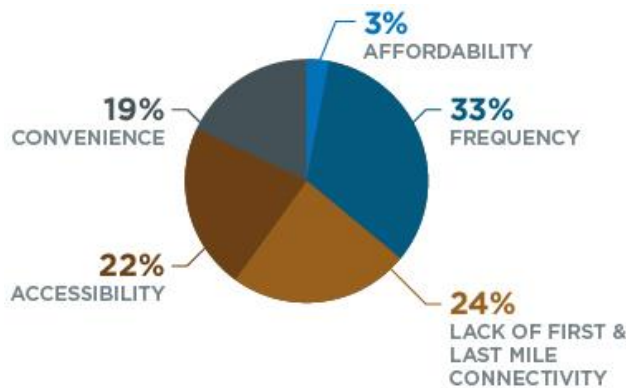
Alternate mode of travel:

83% of the non-users of public transport use personal mobility – own bikes/cars as an alternate mode of travel. In the survey conducted, 88 % of the men said that they prefer their own vehicles as alternate to public transport as compared to 62 % of women. Whereas, 27 % of the women respondents prefer shared mobility as compared to 11% men.



Reasons for not using public transport:

33 % of the survey respondents said that they do not use public transport in Bengaluru because of lack of frequency. Further, 23 % of the respondents cited lack of first and last mile connectivity as a reason to travel in private mode of transport. A certain number of respondents cite Accessibility (22%), Convenience (19%) and Affordability (3%) as reasons for not using public transport in Bengaluru.



33% OF RESPONDENTS SAID THAT **LACK OF FREQUENT PUBLIC TRANSPORT SERVICES** IS REASON FOR USING PRIVATE MODE OF TRANSPORT

24% OF RESPONDENTS SAID THAT **LACK OF FIRST AND LAST MILE CONNECTIVITY** IS THE REASON FOR USING PRIVATE TRANSPORT

Inferences and Policy Implications

First and last mile connectivity to public transport forms an important part of the travel experience on public transport. In Bengaluru, the connectivity to public transport varies across the localities, with certain areas in the city having either metro, bus or suburban connectivity. At present, there is no formal physical integration or information integration across the modes of transport in the city. This level of integration is imperative to encourage people to use public transport. In the survey, 24 % of the respondents stated lack of first and last mile connectivity as their reason to not to use public transport. A report from WRI in 2017 highlighted that a lack of affordable transport to the metro and bus stations in Bengaluru which further highlighted that people who live beyond 5 km from the metro stations are unlikely to prefer public transport. A survey conducted by Ola Mobility Institute in 2018 showed that 70% of citizens in Bengaluru felt the need for improving first and last mile connectivity.

The new age mobility service providers in the city have been working on solutions to address the first and last mile gap. At present, the app based bike taxi, bike rental, cycle rental, shared cabs and carpooling among others are the options to cover the first and last mile journey. However, not all public transit stations at present have parking facilities for app based rental vehicles. As highlighted in the sections above, the use of walking as mode of first and last mile connectivity is very minimal. The use of non motorized transport such as walking and cycling can be encouraged by providing walking and cycling infrastructure as well as providing cycle parking at metro stations.

Shared mobility – shared cabs, shared autos offer effective means of covering the first and the last mile to public transport. However, the existing regulations in the state of Karnataka restricts the mobility service providers in offering these services. The shared auto services work efficiently in certain areas of Bengaluru connecting the interior parts of the city with public transit stations. Further, a shuttle service or a feeder bus system with a specific route covering the distance between residential areas to public transit stations is the most desirable option to close the first and last mile gap.

The innovation in the mobility space to close the first and last mile gap such as bike taxis, e-rickshaw, e-scooters should be encouraged as they offer better first and last mile connectivity. Further, a multi modal integration of all public transit modes in the city would enable service providers to build solutions to close the first and last mile gap.

The city's poor public transport utilization needs urgent attention. We need to conduct pilots in a few high traffic corridors aimed at providing the requisite physical infrastructure, connectivity services for above use cases and complete information integration across different public and shared mobility modes. Such a pilot would provide huge learnings for deployment at scale across the city.

About B.MOBILE: *B.MOBILE is B.PAC's mobility initiative that works on research, policy advocacy, stakeholder awareness in the areas of sustainable mobility, shared/pooled mobility, nonmotorised transit, para transit including related planning and infrastructure needs for providing seamless and integrated first, middle and last mile connectivity to citizens of Bengaluru. Our goal is to push for sustainable mobility for all by encouraging the use of public transport and disincentivizing the private vehicles usage.*