



The Role of Taxis in Urban Mobility of Metropolitan Environment – *A Case of Ahmedabad, India*

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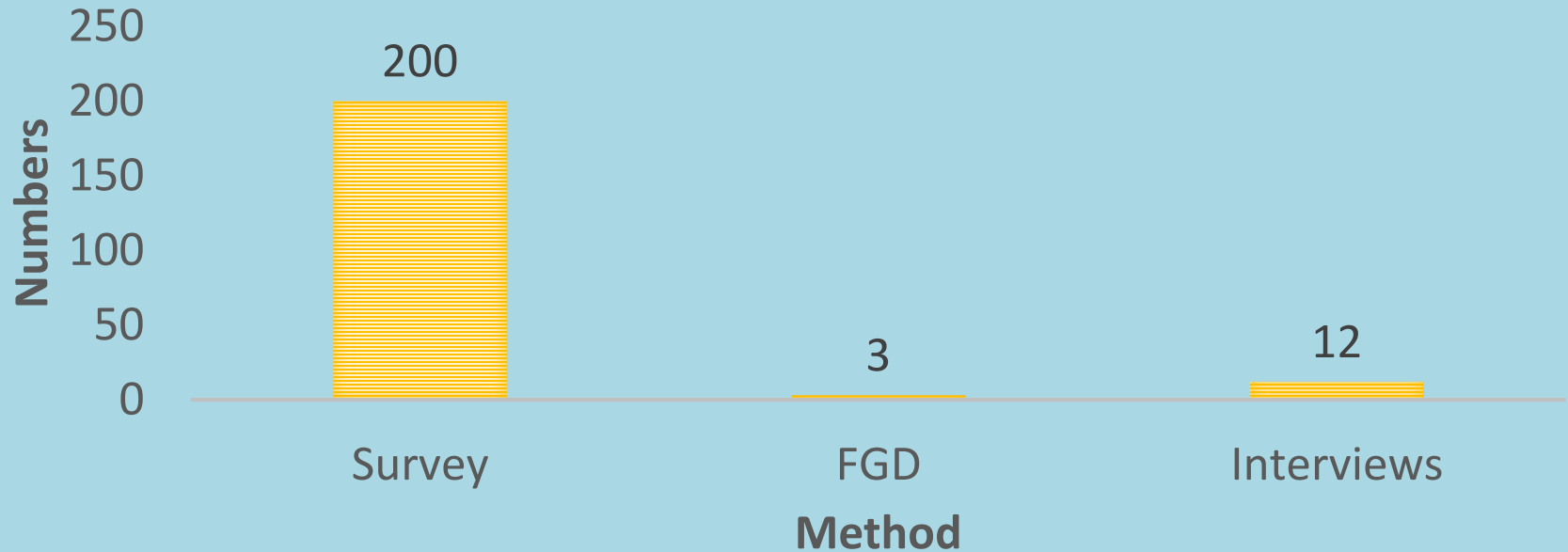


Introduction and Research Questions

- How and when did the app-based services enter into cities of India and how have they grown over time?
- What is the nature of the services provided? How are the range of services expanded?
- Who are they competing with? Are they complimentary to public transport services?
- Do they promote traffic safety? Are they safe for customers?
- Are the services affordable? Reliable?
- Are there any other public service concerns to be addressed?

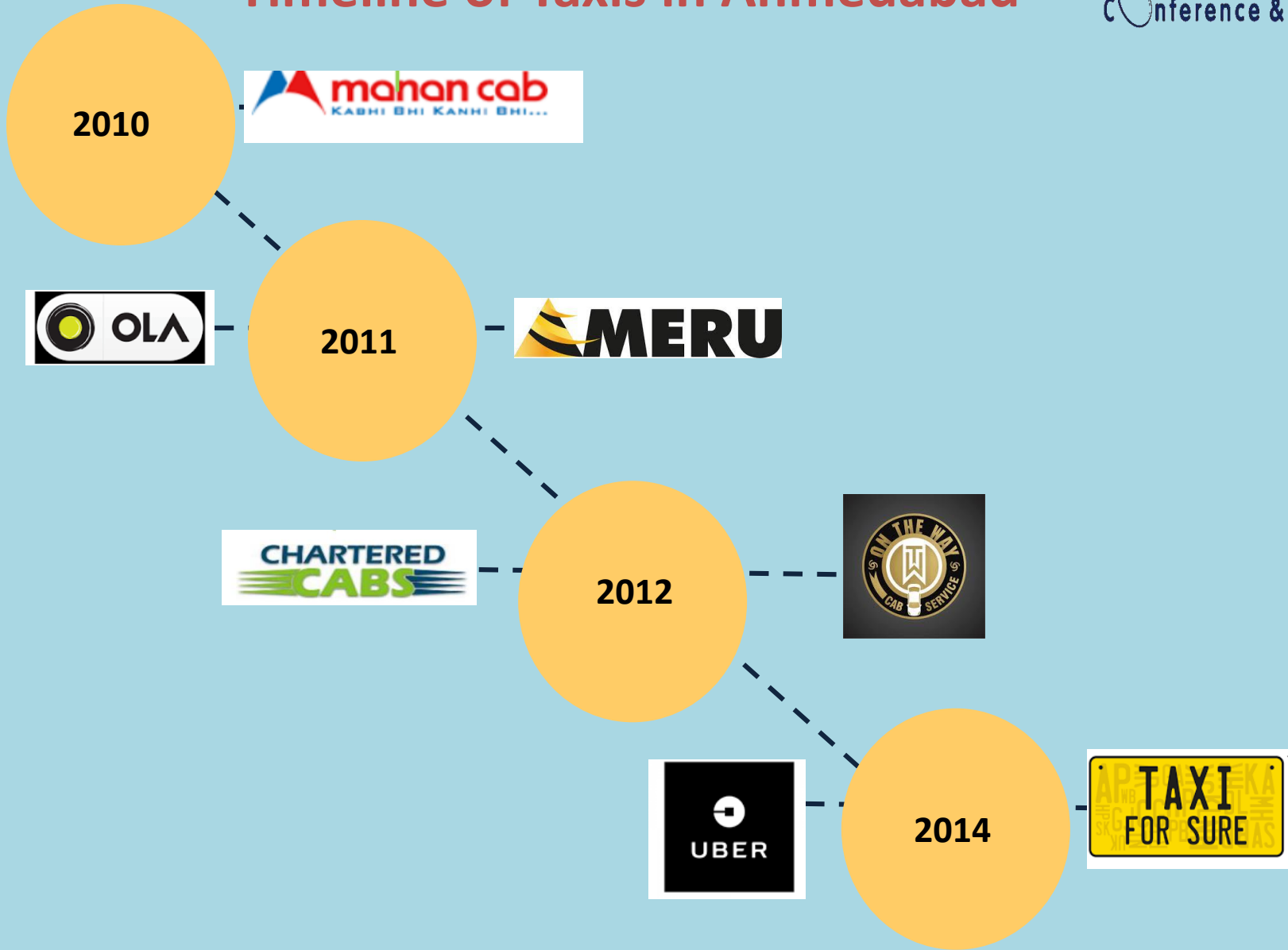
Methodology

PRIMARY DATA COLLECTION



Method	Samples
Survey	<ul style="list-style-type: none">• 100 Working (Jobs, Business, Corporate, etc.)• 100 Non-Working (Students, Home makers, Elderly, etc.)
Focussed Group Discussions	Drivers involved with Vendor Attached Models.
Interviews	Taxi Offices (Uber, Ola, Meru, Taxi for sure, Manan Cabs, On the Way Cabs, Chartered Cabs, G Autos, Jugnoo, etc.) RTO

Timeline of Taxis in Ahmedabad

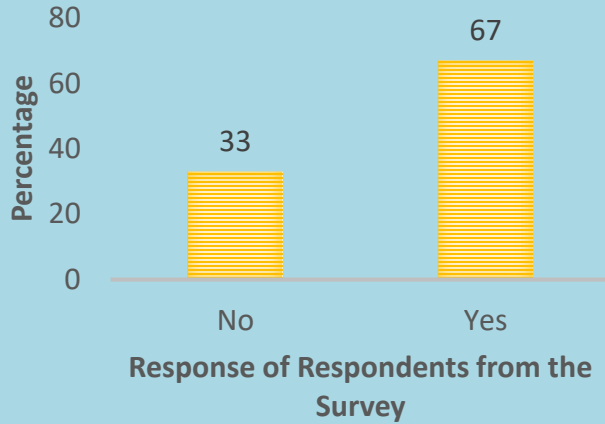


Findings – Cab Operators

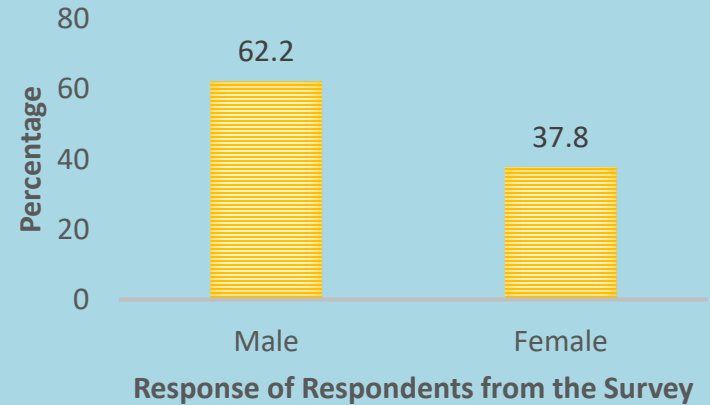
Company	Fleet Size	Ownership Model	Driver Selection Criteria	Model Selection Criteria	Services Provided	Challenges Faced	Expectations from the Govt
Uber	NA	D.C.O- Driver-cum-Operator Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. Just the quality of the car 2. No stickers on the car 3. Customer preferences	tie ups with restaurants, Uber Approved	<ul style="list-style-type: none"> •Awareness among drivers and customers •Breaking the habit, competition with TW and Autos 	<ul style="list-style-type: none"> •Spread digital awareness •Standardization
Ola	2500-3000	D.C.O- Driver-cum-Operator Model, O.M- Operator Model/ Multiple Micro Entrepreneur Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. GPS/CNG Check 2. Not more than 5 yrs 3. Customer preferences	Mini, sedans, autos, Ola Corporate	<ul style="list-style-type: none"> •Awareness among drivers and customers •Breaking the habit, competition with TW and Autos 	<ul style="list-style-type: none"> •Create financial accessibility •Spread digital awareness
Taxi for Sure	2000	D.C.O- Driver-cum-Operator Model, O.M- Operator Model/ Multiple Micro Entrepreneur Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. GPS/CNG Check 2. Not more than 5 yrs 3. Customer preferences	Mini, Sedans, hatch backs	<ul style="list-style-type: none"> •Awareness among drivers and customers •Breaking the habit, competition with TW and Autos 	<ul style="list-style-type: none"> •Create financial accessibility •Spread digital awareness
On the Way	259	D.C.O- Driver-cum-Operator Model, Vendor Attached Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. GPS/CNG Check 2. Not more than 3 yrs 3. Customer preferences	1. Corporate Packages 2. One Way Drop Facilities 3. Call/App Based Bookings 4. Events And Conference 5. Female Employ Conveyance	<ul style="list-style-type: none"> •Awareness among drivers and customers •Breaking the habit, competition with TW and Autos 	NA
Meru	NA	D.C.O- Driver-cum-Operator Model, Vendor Attached Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. GPS/CNG Check 2. Not more than 5 yrs 3. Customer preferences	Mini, sedans, hatch backs	<ul style="list-style-type: none"> •Awareness among drivers and customers •Breaking the habit, competition with TW and Autos 	NA
Manan	60	D.C.O- Driver-cum-Operator Model, Vendor Attached Model	4. Eye check up 5. Driver should not be working anywhere else	1. GPS/CNG Check 2. Not more than 3 yrs 3. Customer preferences	Mini, sedans, insurance, Whats App, Call booking	Same	<ul style="list-style-type: none"> •Standardization, border tax, police verification optional
Chartered	50	D.C.O- Driver-cum-Operator Model, Vendor Attached Model	1. Licence 2. Police verification 3. LMV Cab license and Taxi Badge	1. GPS/CNG Check 2. Not more than 3 yrs 3. Customer preferences	Mini, sedans, hatch backs	Same	NA

Findings – User Characteristics

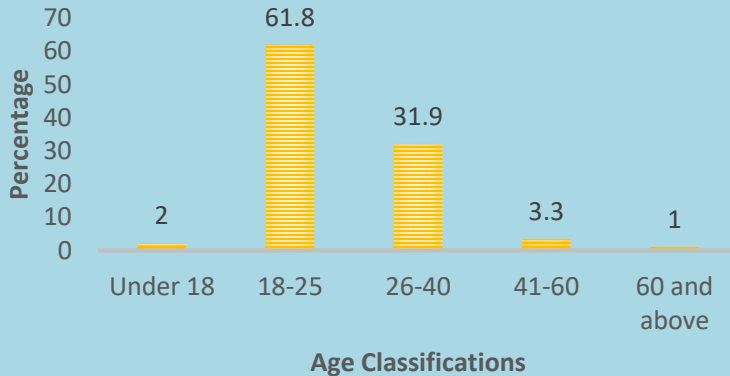
TAXI USERS



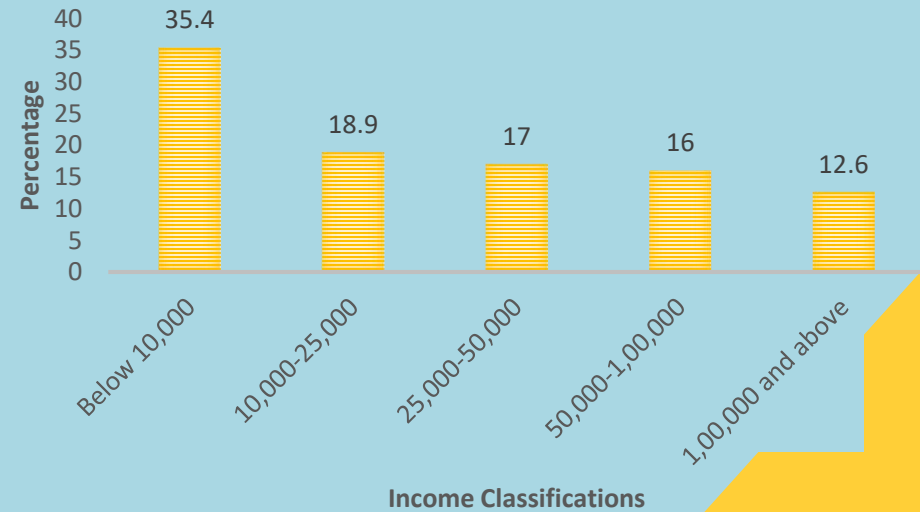
GENDER OF THE USERS



AGE GROUPS OF USERS

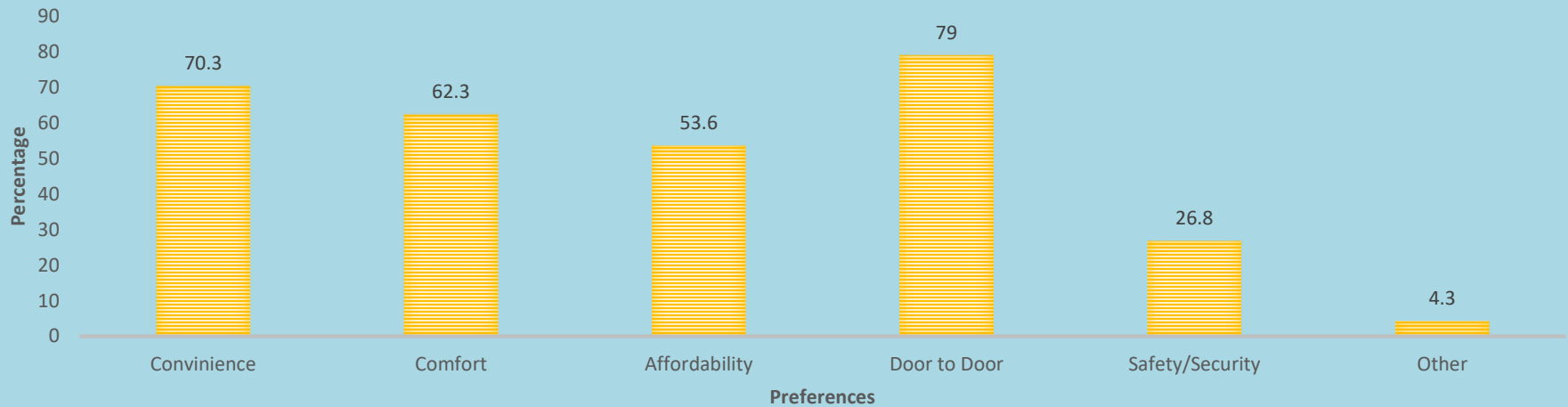


MONTHLY INCOME OF USERS



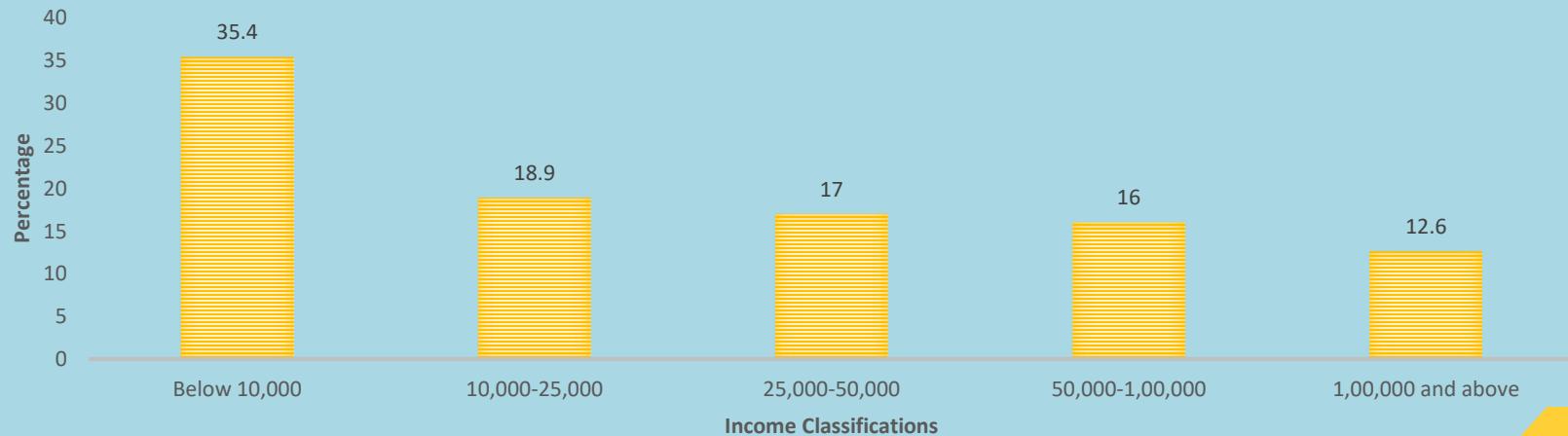
Have Taxis Improved Connectivity in the City?

REASONS TO USE TAXIS



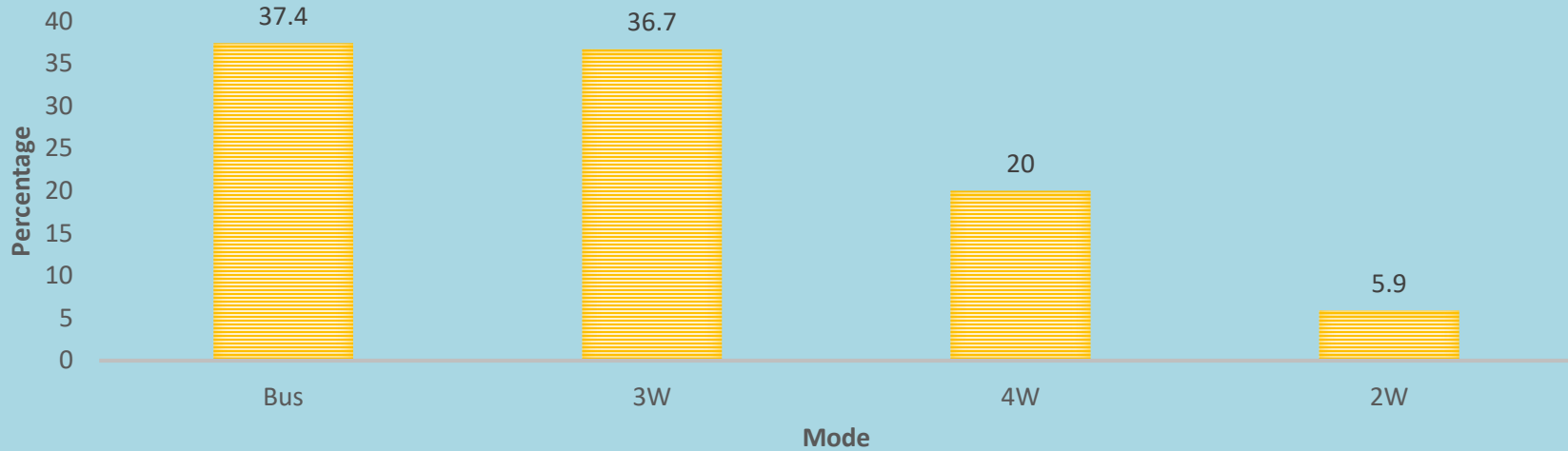
Are taxis serving only the rich?

MONTHLY INCOME OF USERS



Are Taxis Competitors to IPT and PT?

SHIFT TO TAXIS MODE WISE



Have Taxis improved the safety and security of the users?

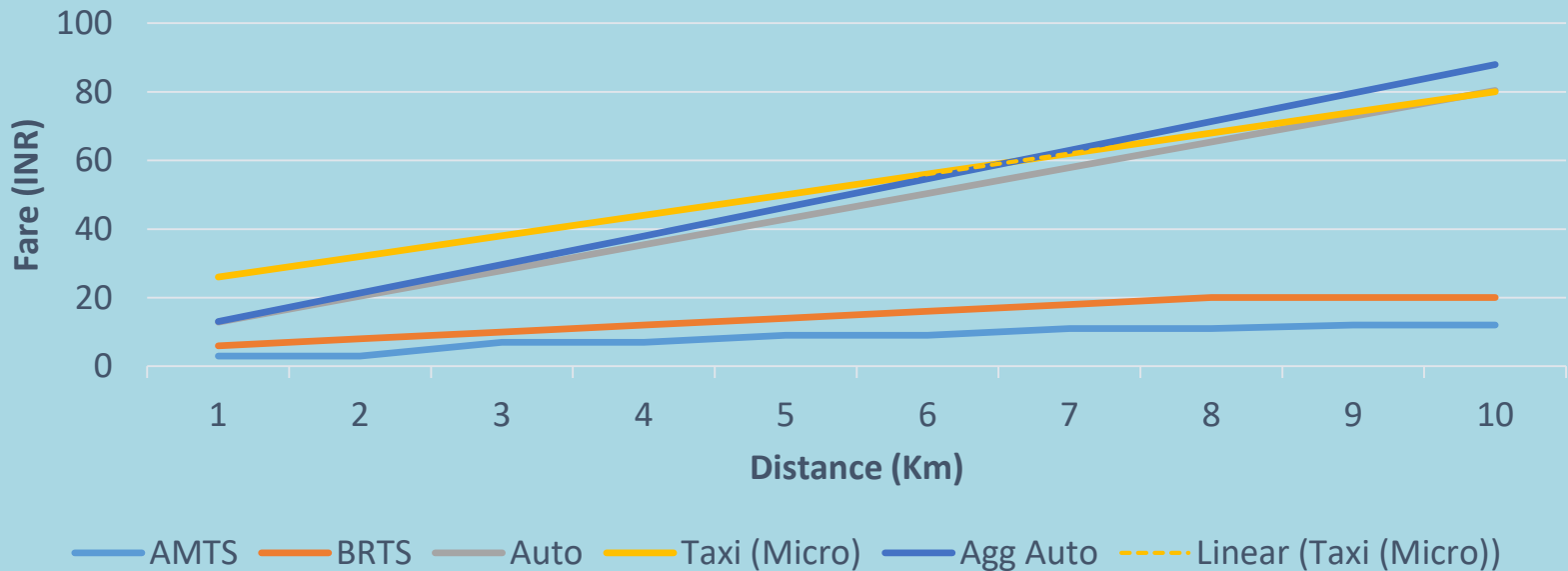
GENDER OF THE USERS



How affordable are these taxis?

Kilometers	AMTS	BRTS	Auto	Taxi (Micro)	Agg Auto
1	3	6	12.85	26	13
2	3	8	20.4	32	21.33
3	7	10	27.9	38	29.66
4	7	12	35.4	44	37.99
5	9	14	42.9	50	46.32
6	9	16	50.4	56	54.65
7	11	18	57.9	62	62.98
8	11	20	65.35	68	71.31
9	12	20	72.85	74	79.64
10	12	20	80.35	80	87.97

Per KM Fare Comparison



Concerns from the Users

- **App only**
 - **Higher pricing, Surge Pricing**
 - **Service Rejections / Driver denials and high waiting times**
 - **Rainy Day crisis**
 - **Pick up guidance**
 - **Hygiene**
-
- There is an increased share of dead mileage in total operations is witnessed which impacts the net earnings of taxi operators.
 - The predominant role of conventional taxis from stands still is limited to and from travel to terminals and stations and not for urban travel commuting.
 - There are very limited taxi stands in cities and that too not for app-based taxis which result in illegal parking behaviour witnessed on roads affecting smooth traffic flow.
 - There is illegal usage of private cars as conventional taxis, sometimes as high as 25%.
 - There is a diminishing profit in app-based cabs operations over the years owing to increasing competition as a consequent of excess supply, declining incentives and commission obligation to companies.
 - The present operations reflect long working hours for app-based taxi drivers in order to generate requisite income levels to maintain sustainable standards of minimum living.

Summing Up

PERCEPTION	HYPOTHESIS for Ahmedabad	JUSTIFICATION for Ahmedabad
Taxis are improving connectivity in the city	CONFIRMED	Caters to areas where other modes of transport are remotely available
Taxis are competitors to Public Transport	CONFIRMED	37% of the taxi users were using PT earlier
Taxis improved safety and security of the users	INSIGNIFICANT	Only 37.8% female users, and safety security preference is 26.8%
Taxis are competitors to IPT	INCONCLUSIVE	Aggregated autos are very new in the market and are very small in number to compare
Taxis reduce congestion	CONFIRMED	20% of car users are moving to taxis. Optimum space utilisation and maximum asset utility does not require parking space
Taxis have an overall positive impact	CONFIRMED	Increase in employment Increase supply More choice to the customers Increased mobility
Taxis can be complementary to PT	CONFIRMED	Positive answers from govt, offices and users (60%)
Taxis serve only the rich	INCONCLUSIVE	Caters to all groups, dominantly HIG and MIG, poor people are marginalised.

Looking forward

- There is a lack of comprehensive understanding of usage of share modes and how it fits with the local socio-demographic context
- There is an absence of knowledge on the attitudinal and behaviour constructs that contribute to shared mode accessibility transforming into sustainable lifestyle
- Traditional mobility choice models do not address how shared mobility has changed the travel choices of people
- Need to enhance the understanding of the shared mobility ecosystem - modes available, users, usage, impacts on travel behaviour, synergy between shared modes and PT
- Taxi Regulations revision and inclusion of new characteristics.
- Improvement on the quality of services from the operations side.
- There is a need to not only enhance the taxi supply in cities taking into account their economical sustainability but also develop a taxi typology allocation policy in which the app-based cabs, radio taxi and tourist taxi will have a predominant share in taxi fleet as they enjoy the benefits of reduced dead millage, assured service, safety and comfort in travel.

Thank You