Department of Commerce

Faculty of Commerce and Business

Delhi School of Economics

University of Delhi

Delhi-110007

Date: 4th July 2023

Notice

The Department of Commerce invites applications from the interested research scholars to work on the project **Bike Taxi.** The terms and conditions for working for the project are mentioned in the Annexure-I.

The interested research scholars are requested to fill the google form latest by 10th July 2023. The link to fill the form is mentioned below:

https://forms.gle/PS1qeBrLCak5j1uq6

Prof. Ajay Kumar Singh
Head and Dean

Proposed TOR

Module 1 – Secondary Research

(i)   Introduction to the Two-Wheeler (2W) Based Economy:

    a.   Historical and projected growth of 2W sales in India (from SIAM database).
    b.   Key growth drivers for preference/ adoption of 2Ws in India (for e.g., conducive for traffic, parking, affordability, etc.).
    c.   Correlation between the growth of 2W sales and the growth in gig economy (on a best effort basis).
    d.   Outlining the various commercial activities which bike owners undertake as part of the 2W commercial economy, such as (on a best effort basis):
        i.   Traditional Rent-a-bike system: Goa (why did it not find prominence in other states);
        ii.   Food delivery;
        iii.   Hyperlocal delivery/ last mile logistics; and
        iv.   Bike taxis.
    e.   Highlighting the advantages of commercial 2Ws to various stakeholders such as society, asset owners (for e.g., affordable access/low barrier to entry), commuters, government (for e.g., how the industry can bring the government's vision to reality - livelihood generation and digitization).
    f.   Highlight the advantages of bike taxis vis-a-vis public transportation such as first and last mile connectivity, complementing the public transportation systems (metro and buses).

(ii)   Assessment of regulatory framework laid by central government for bike taxis in India as follows:

    a.   Provide an outline of regulatory framework for the aggregator/ ride-hailing business;
    b.   Key regulations for bike taxi under the Motor Vehicles Act, 1988;
    c.   Discussions with stakeholders in the central government; and
    d.   Understand the viewpoint of industry associations (such as CII, FICCI) on bike taxi regulations.

(iii)   Assessment of regulatory framework laid by state governments for bike taxis in India (in 10 focus cities, i.e. *Delhi, Hyderabad, Chennai, Ahmedabad, Jaipur, Kolkata, Bangalore, Mumbai, Guwahati and Aizawl*) as follows:

    a.   Provide an outline of regulatory framework for the aggregator/ ride-hailing business;
    b.   Key regulations laid under transport department for bike taxis;
    c.   Ban/ restrictions on bike taxi and reasons for the same;
    d.   Challenges faced by bike taxi riders from local taxi/ cab associations;
    e.   Safety guidelines for bike taxi riders;

      f.   Regulatory guidelines for registration of bike taxis for commercial usage;

      g.   Implications of these regulations on drivers, customers, operators and registration process; and

      h.   Discussions with stakeholders in 3-4 key state governments.

(iv)   Understand the bike taxi registration process in the 10 focus cities (mentioned above) as follows:

      a.   Understanding on the process and activities to be performed by various stakeholders;

      b.   Timeline for registration process;

      c.   Fees and other charges;

      d.   Number of RTO visits required;

      e.   Documentation required; and

      f.   Key challenges faced during the registration process.

(v)   Successful global bike taxi case studies (for which the literature and case studies will be provided by Uber)

      a.   Regulatory frameworks for bike taxis (for e.g., tech first and tech friendly policies);

      b.   Process for registration of commercial number plate;

      c.   Form factor for the bike taxis present;

      d.   Positive impact of bike taxis in terms of benefits for key stakeholders such as society, asset owners, commuters, small businesses, *etc.*

Module 2 – Primary research (Surveys and FGD)

(i)   Identify and categorize bike drivers into segments based on the following:

      a.   Demographics (age, income with and without bike taxi);

      b.   Usage pattern (gigs taken up - food delivery/e-commerce, etc., number of hours in a day);

      c.   Profession (student, blue collar, skilled laborer, unskilled laborer, unemployed, *etc.*);

      d.   Ownership structure (owned v/s financed v/s rented); and

      e.   Future plans.

(ii)   Highlight key benefits with adoption of bike taxi and issues/ challenges faced at an operational level (both regulatory and business).

(iii)   Identify the motivation to join the platform and reasons for churn (including average duration for such gig work).

(iv)   Identify the willingness to convert to yellow number plate.

(v)   Highlight key issues/ challenges faced by auto-rickshaw drivers with adoption of bike taxis.

(vi)   Their understanding on the current regulations and commercial plate registration process

and on-ground experience.

<u>Module 3 – Policy recommendations</u>

(i) Highlighting the social and economic benefits to bike taxi drivers, customers, and aggregators with growth of bike taxis.

(ii) Assessment of the possible changes to bike taxi registration process. For example:

    a. Digitization of entire registration process;
    b. Online payment gateways to eliminate agent fees;
    c. Low duration registration options for reduced upfront cost given bike taxi is short term employment with high churn rate;
    d. QR code based P2P ecosystem;
    e. Streamlining of existing processes; and
    f. Single license for all modes of transport including cabs, autos and motorcycles.

Academic Partnership

1. Potential Usage of Logo on the Study
2. Foreword from Dean/Senior Faculty
3. Research Scholars for 45 day engagement
   - 3 research scholars
   - The role of the research scholars would be to validate the hypothesis as mentioned in the following document.
   - Remuneration INR 50,000 for each scholar. (On submission of the chapter, reviewed and completed to the satisfaction of the client)
   - The Scholars would be given due credit in the chapter, which they would be contributing towards.
4. The Academic Institution (or relevant department) would have to enter into a Knowledge Partnership Agreement with the Consultant for the study.

Hypothesis to be tested during the academic project

Hypothesis	Hypothesis Testing

Net Employment Generation

- Bike taxis will generate employment opportunity for at least 2 mn urban youth willing to work part time, full time or looking to add a second source of income. This could be a long-term solution to urban unemployment lifting millions of families out of poverty

- Estimate the total number of bike taxis required in a city to derive direct employment generation

- To be conducted for 10 cities: 1. Delhi, 2. Hyderabad, 3. Chennai, 4. Ahmedabad, 5. Jaipur, 6. Kolkata, 7. Bangalore, 8. Mumbai, 9. Guwahati, and 10. Aizawl

Reduced carbon emission per km

- 2Ws emit fewer pollutants as compared to 3Ws and cars resulting in lower carbon emission per km. Bike taxis offer point to point mobility solution and the overall emissions are much lower than individuals using auto and personal cars

- 2Ws are already marching towards EV with proven TCO benefits. Partial inclusion of EVs in bike taxi fleet could further reduce carbon footprint

- Compare the overall environmental footprint of ICE 2W v/s EV 2W v/s ICE 3W v/s EV 3W v/s ICE Car v/s EV Car on a per km basis (considering 1 passenger)

- The analysis must consider the environmental impact of EV adoption across the mentioned modes of transport

Reduced congestion

- Decongest busy parts of cities by making last mile connectivity available so that people live and work away from the center

- As per IIT Madras study, there is an economic cost associated with congestion (Currently USD 9 Bn per annum, to reach USD 15 Bn by 2030). Reduced congestion on road can indirectly benefit economy as well

- Comparison of average speed of 2W, 3W and Cars in urban and semi-urban areas during both peak and non-peak hours

- Analysis of potential reduction in traffic in congested parts of cities with increasing adoption of bike-taxis v/s cabs or private vehicles

- To be conducted for 5 cities: 1. Delhi, 2. Chennai, 3. Kolkata, 4. Bangalore, 5. Mumbai