## ESSAYS ON TWO-SIDED MARKETS:

## AN INVESTIGATION OF THE INDIAN RADIO TAXI INDUSTRY

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## <u>ABSTRACT</u>

With the expansion of computing and the internet revolution, two-sided markets are fast becoming ubiquitous across all spheres of the 21st-century economy. To highlight its relevance, three of the five most valued companies in the world have adopted the same as their business model; Apple, Google, and Microsoft. Also, seven of the ten most valued start-ups have adopted this business model, including the likes of Uber and Airbnb. At first, the phrase 'two-sided market' sounds like a tautology, i.e., by default, all markets have two sides, a buyer side and a seller side. Formally, it is defined as a market in which the volume of transactions between end-users depends on the structure and not only on the overall level of the fees charged by the platform.

These businesses need to address the 'chicken-egg problem' and successfully get both sides on board. While these new forms of business have, on the one hand, reduced transaction costs, there is empirical and experimental evidence of these markets being highly concentrated, with a tendency to lean toward 'winner takes all' owing to network effects. Regulators across the globe are attempting to strike a balance between not curbing innovation on the one hand and, at the same time, protecting consumer welfare.

In this context, in Essay 1, I analyze 25 antitrust cases about two-sided markets in the Indian context to understand the jurisprudence in the country in the backdrop of a decade of existence

of the Competition Commission of India (CCI). The cases traverse several industries, namely radio taxis, online marketplace, real estate, healthcare, entertainment, stock exchange, broadcasting, online search, and academic publications. I argue that CCI, with its non-interventionist policies, reflected by the number of acquittals at the prima facie stage, coupled with instances of high discretion and low predictability, falls in the 'Market Discretionalists' category.

The next two essays focus on one side of these markets, i.e., labour or the service-providers. I focus on understanding aspects of labour in the Indian Radio Taxi Industry due to its ease of access and its characteristic of being a prototypical example of the "sharing economy." The sharing economy can be described as being mostly market-based, ensuring optimal utilization of assets, where crowd-based "networks" operate rather than centralized institutions or hierarchies and where there are blurred lines between fully employed and casual labour, between independent and dependent employment, between work and leisure.

On the one hand, the sharing economy is said to provide 'flexibility', autonomy, and enhanced incomes to labour. On the other hand, it has been a hugely contested space for corporations circumventing prevalent regulations. The status and working conditions of labour in this sector has also come under question, with certain scholars referring to drivers in the radio taxi market as "sweated labour". As part of the second essay, I analyze prominent case laws from the US and EU jurisdictions, addressing the central question of whether drivers in the radio taxi market be legally considered independent contractors or employees and draw vital lessons for India. To understand the ground realities of labour in this sector, I undertook a primary survey of 251 Uber and Ola drivers in Kolkata between November 2019 to February 2020. Innovative contractual arrangements had emerged in the country to tap into the surplus labour that exists. Findings reveal that about 90% of the sample reported working for 9 hours or more in a day, thereby implying a lack of flexibility for labour in the sector. About 60% of the sample reported

aspiring for an "employee" legal status, while about 30% wished to remain "independent contractors". Drivers who multi-homed and "attached" themselves to more than one app reported higher weekly net-incomes than single-homers. Also, owners of assets (cars in this case) who drove in the radio taxi segment reported weekly net-incomes lower than drivers who were merely hired by asset owners.

Components of subjective well-being, viz., life satisfaction, worthwhileness, happiness, and anxiety are intricately intertwined with individuals' income, employment, and work-patterns. Despite this fact, there is a considerable dearth in understanding workers' subjective well-being in the emerging forms of employment of Industry 4.0. As the world keeps pace and adapts to newer business models, the notion of "work" and "labour" as we know it is undergoing a dynamic transformation.

Essay 3 attempts to understand the determinants of subjective well-being of workers in the sharing economy in India. While there is scanty literature about understanding the underpinnings of subjective well-being in developed countries, such work is non-existent in developing countries like India. We obtain data from a primary field survey in Kolkata, an Indian city, between September 2019 to February 2020. The survey was administered on 251 radio taxi (Uber and Ola) drivers.

This study is the first of its kind in providing evidence for "sharing economy specific factors" like car segment, nature of the contractual arrangement, and multihoming impacting subjective well-being. We have three key findings from this essay; firstly, a higher car segment enhances life satisfaction and aggravates anxiety; the latter could potentially be connected with loss-aversion. Secondly, renters report lesser levels of worthwhileness than their driver counterparts, potentially owing to the opportunity cost of losing out on investing in their own assets. Thirdly, multihomers report higher levels of anxiety attributable to higher search and information costs.