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AN EMPIRICAL STUDY OF THE INDIAN TAXI MARKET - WITH A BRIEF ANALYSIS OF THE EMERGING TAXI AGGREGATOR SECTOR

Article Particulars

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Abstract

The Indian taxi market, which was predominantly dominated by the unorganized sector has sensed its disruption since the introduction of private players in the form of taxi affiliators and more importantly, taxi aggregators. This change has been one of the most astonishing of its kind. This paper aims to study this phenomenal change and thereby analyze the factors reinforcing the growth of taxi aggregators. This paper has employed extensive research of secondary data to achieve its objectives. This paper talks about how the evolution of the Indian taxi market from horse wagons to app based taxi aggregators. Additionally, the reasons for the growth of the Taxi Aggregators in the Indian taxi market and the role of data analytics has been explored. This paper concludes with anticipating future trends in this booming sector and inclination of more entities to join this contest.

Keywords: *Taxi Market, Taxi Aggregators, India, Web-based software application, Taxi model*

Introduction

India, the seventh largest economy in the world and home to 1.3 Billion people has had a spectacular growth story since independence. One particular sector that has always been in the light of growth is transportation, be it railways, roadways, airways or waterways. This sector employs over 10% of India's population. However, in-spite of constant government efforts, there has been poor public commuting system and the

government hasn't been succeeded in providing reliable conveyance. Hence, large parts of population have had to rely on private transport. But not, all segments of the country can afford or prefer to use personal vehicle, which has led to the evolution of the so called '*Taxi Market*'.

In this $2.264 trillion economy, the taxi market itself comprises about $12 Billion in the GDP. Almost each of India's 29 states and 7 union territories has different types of taxis and the laws governing them. But this, intervention by government is more focused on the unorganized sector than the organized sector.

What was once considered as a demeaning segment for car makers to unbridle their models, is now the best bet for them to grow business. Manufacturers, who were once skittish about being unified with cabs, are now competing to grab a share of the rapidly growing pie. Clearly this change has been a remarkable story of revolution, with a lead role played by the organized sector.

Research Problem

This paper studies how the taxi market has evolved over time and how it has now become an expeditiously growing business in the country. This paper will also highlight the shortcomings of the unorganized transport sector along with other factors that have aided the growth of taxi aggregators. The research paper aims to study how Taxi Aggregators have impacted the Indian society and what has resulted in its growth which leads it to be called as a disruptor.

Research Objectives

The research objectives of this paper are as follows:

a. To get an overview of the taxi market of India.
b. To analyze the role of Taxi Aggregators in the Taxi Market along with the factors contributing to their growth.
c. To unravel the role of data analytics in the Taxi Market.
d. To understand the future of taxi market in India.

Research Methodology

The research commenced with an extensive review of existing literature. The secondary study was essential to understand the background of the Taxi Market and the secondary information was sourced from books, journal articles, newspaper articles and websites.

Overview of the Taxi Market in India

Unorganized Sector

Until the first decade of 20th century, Horse wagons were the preferred mode of transport, but due to its inefficiency, they were replaced by Taxi Cabs (commonly known as Taxis) in 1911. Also known as Kaali-Peelis in Mumbai, Delhi and various other

cities because of their color, these cabs have been an integral mode of transport in India. In states like Goa, the concept of Motorcycle taxis also prevailed as it was much cheaper but could carry only one passenger and a backpack as luggage. However taxi cabs, which were owned by individual drivers had a capacity of 4 passengers and could carry 3-4 backpacks. As per Government of India's regulation, these cabs have a yellow number plate and a fare meter installed to calculate the fare for point-to-point transport. These cabs work in a traditional way, where passenger would wait on the streets to stop the cab and let the driver know where he wants to go, or the passenger would go to locations called taxi stands where passengers would wait in a queue and taxis looking for a trip would come. 20th century also saw the start of other modes of transport like buses, trains and metros. In many cities auto rickshaws started which functioned in the same manner as taxi cabs but could carry only 3 passengers and lesser luggage.

Gradually the concept of Shared Taxis emerged which were normal taxis which carry more than one passenger travelling to the same destination or en-route. The passengers would have to wait for a few minutes for the cab to fill. Passengers were charged as per the number of people and distance. This model prevailed in all parts of the country as passengers would now have to pay less for the same trip as they were sharing the cab. On the other hand, drivers would usually get more fare than what they would as per the fare meter. A similar system later started for Auto-rickshaws, which is known as shared autos.

The taxi market, which was largely unorganized had many cons. Keeping this in mind, was introduced the concept of Prepaid Taxis, which operated predominantly for transportation from airports to the interiors of city and thus were also referred to as Airport taxis. This type of taxi business was managed by the government where taxi booths were set up outside airports and local taxis would register to get a trip. Passengers arriving at the airport would have to stand in queue and pay in advance the fare for their journey, depending upon the distance. The taxi drivers would get their earnings later or at the same time, depending on the model of that taxi booth. Prepaid taxis did very well in their initial years of establishment. They were more reliable and passengers could avoid from the hassles of arguing with drivers for fare. Also, to some extent, prepaid taxis were organized and safe and driver and cab details were taken before the trip, but this model could not make its way for transportation within the cities as it was not feasible to have taxi booths all around the city. Thus this model is restricted to Airports.

For many years, Taxi Cabs and Auto-rickshaws enjoyed the monopoly in road transport and were the only direct competition to each other. They provided cheap and personal transit within the city and were flexible as they picked and dropped passengers at their desired location. According to Road Transport Year book, there are 2.3 million registered taxis plying across different states in India.

Apart from a few business models like prepaid taxis, the overall model of Taxi Cabs faced many criticisms:

- They were unorganized and there wasn't appropriate enforcement over them.
- Many drivers wouldn't operate as per the fare meter.
- Many times the driver and the passenger would not know the route to reach the destination which would cost time and money.
- The level of safety was also low and there had been many cases of rape, molestation, etc.
- Often these cabs would go on strike and demand a fare hike.
- Many drivers would manipulate the fare meter which would lead to increased fare.
- The taxi market till the end of 20th century saw no interference by private players. But there definitely was huge scope and private entities started seeing opportunities and aimed at capitalizing this market. Initially private players started car rental agencies where an individual/an institution would provide cars on rent. They wouldn't ideally own these cars but they tied up with local drivers who would register with such organization, and the agency simply acted as an intermediary between the drivers and customers for a certain amount of commission. These agencies had local reach and limited resources and thus did not flourish to a great extent.

Organized Sector

In 2000, the first major organized player, Mega Cabs, came into existence. Following which, Easy Cabs and Meru were established in the year 2006 and 2007 respectively. These companies followed the model of Cab Ownership. They owned the complete fleet of cabs (which were normal cars with commercial driving permit), hired drivers as employees for a salary and provided point-to-point transportation within the city. Their model involves customers to book mainly via calls and cash was the dominant mode of payment. The cab would come at the location of pick-up and take the customer to his destination. These companies provided some level of convenience and safety to the users and they also facilitated rapid expansion, but they were characterized by high costs- car loan EMIs, maintenance costs etc. Also they were not widely accepted by a large part of Indian market in their initial years. They faced a lot of issues including unavailability of cabs, unwillingness of people to switch to such model and strikes by drivers.

Later companies like Savaari and Taxi Guide established their business model. They came to known as Taxi Affiliators, which means they were associated with many car rental agencies and thus could provide various offers and deals. Their model initially focused on inter-city transport and thus did not act as a replacement to local Taxicabs and Auto-rickshaws. The situation in India after the first decade of 21st century was such that transportation was still a significant sector and one with many loopholes.

Despite many private players in the organized taxi market people still had to depend on the unorganized segment.

Then India saw the birth of one of the largest disruptive business model known as Taxi Aggregators with the launch of Ola in 2010, Taxi For Sure in 2011 and Uber in 2013. Taxi Aggregators are those companies who design, own and manage Web-based software application, and by means of such application and a communication device, enable a customer in need of a cab to connect with persons providing cab service under the brand name of that aggregator. As of 2017, the Indian taxi market is a $13 – 15 Billion industry, with $1.4 Billion belonging to the organized taxi market.

Understanding the Term Taxi Aggregators and the Players in This Segment

The term "Aggregator" is defined as a web site or computer software that aggregates a specific type of information from multiple online sources. Thus, Taxi Aggregators are those companies who design, own and manage Web-based software application, and by means of such application and a communication device, enable a customer in need of a cab to connect with persons providing cab service under the brand name of that aggregator.

Taxi Aggregators work as a demand and supply matching mechanism and generate revenue by doing so. Which simply means that they connect commuters (demand side), who are in need of a cab service at any moment in time, with the cab drivers (supply side) who are willing to provide this service. (Source: FatBit). The Taxi Aggregator company earns a certain commission in this entire transaction which it gets from the bill amount paid, thus not all what the customer pays goes to the driver, as some percentage of it, usually 10-20% is charged by company for being an intermediary and providing the technology and tax is also deducted. This is how these companies are different from unorganized alternatives.

India, a country of around 300 million internet users, emerged as the third largest market for cab aggregators in 2016 after China and North America, a spectacular growth in a span of less than three years before which it was hardly visible in the world market for cab aggregators. Most of the industry estimates place the market share for Ola at around 65% with Uber holding the rest in the taxi aggregation business. This is because Ola entered the market earlier, hence enjoys the first mover advantage and has achieved better market penetration (present in over 104 cities) as compared to Uber (present only in 29 Indian cities), which gave them the much needed lead. As per the research done by KalaGato market share (on the basis of application downloads) of Uber was 50% and Ola stands at 44% during the period January 2017 to June 2017.

Growth of Taxi Aggregators in India

The share of Taxi Aggregators in the taxi market has grown phenomenally from 3% in 2013-14 to 9% in 2016 and is expected to reach 15-17% by 2020. Loopholes in other

modes of transport, changing lifestyle of consumers and exponential increase in the per capita income have been some of the causes of this remarkable growth of Taxi Aggregators in India. According to Trading Economics, India's Per Capita GDP increased by 38% from $1.345.8 in 2010 to $1,861.5 in 2016. As per the World Bank estimates, India's Per Capita GDP PPP grew by 51% for the same period. Additionally, the traffic situation in India is just helping the growth of cab aggregators. A report by India Brand Equity Foundation (IBEF) states that Indian roads carry close to 90% of the passenger traffic and 65% of the freight

A survey by Mumbai GrahakPanchayat (MGP) shows that a prodigious 94% of commuters feel harassed by refusal of traditional taxi and auto drivers, while a whopping 80% are of the opinion that app based taxi aggregators offer better and more convenient options for travel. Given increasing traffic woes, there is a large customer segment which has shifted or will shift towards taxi usage due to additional comfort of chauffeur driven car without paying out for driver's salary. Out of the 76,169 commuters who participated in this survey, 47% believe the fares charged by Ola and Uber are cheaper than other modes of transport. This actually holds true given the other leisure benefits that come along with the services of these cab aggregators.

A report by Valoriser consultants has identifies certain reasons to understand the growth of taxi aggregators. The report states that low car ownership and non-availability of good cab service are the top two reasons that have facilitated this growth. Most Indians do not own any vehicle or own a two-wheeler. Given the inadequate public transport system, this calls for dependence on taxis for travel requirements like outings, holidays and various special occasions. Taxi aggregators are encashing this opportunity by providing better and prompt services.

Successful use of Data Analytics, support from drivers and diligent use of technology are other factors which have given the Taxi Aggregators in India the much needed boost.

Role of Data Analytics

Data Analytics plays a vital role in the functioning of the Taxi Aggregator business model. Perhaps, Data Analytics is the major key to their growth as it helps to expose variability and optimize operations. One of the contributions of Big Data analysis is to help predict future demand. CEO of Meru Cabs says that by using data companies try to enhance the number of trips each cab makes per day. This along with data on traffic and road conditions has helped companies, especially Meru to increase the average number of trips made by a cab by more than 40%. Apart of determining the right price for a destination, Taxi Aggregators use data also to map demand and supply scenario in the market and thereby gain insights into when and where the demand will peak. This is possible by continuously analyzing data sets such as weather conditions, major events like a cricket match, a concert, and even traffic trends of

office goers. Analyzing these data sets shows when demand is going to rise and thus gives taxi aggregators an edge to capitalize on this opportunity and they do it very well by placing more cabs in that area. In fact, this is the main reason why Taxi Aggregator cabs have higher capacity utilization rate as by predicting demand they allow the driver who is closer to the customer's location to take the trip, thus reducing driver's idle time and giving him better returns. Co-founder and CEO of Ola says that their drivers have increased their capacity utilization rate to 85% by knowing the best time to be online and make maximum business. The Capacity utilization rate of traditional alternatives is much less.

Uber, on the other hand collects tones of Personally Identifiable Information (PII) data points via its app. By tracking customers even when they are offline, Uber can potentially identify a specific individual. Moreover, many times customers willingly trade PII for additional offers and perks. PII data essentially include information gathered from customers' accounts, locations, mobile details, credit card details, and much more, thereby allowing Uber to track popular trends like preferences for eateries, traffic patterns around the city, shopping habits, etc. (Source: Business Standard Article)

Future of the Indian Taxi Market

In the global markets, aggregators have shifted to driverless cars and even flying cars and helicopters in case of Uber. The idea really is to solve the problem in different ways. Uber might look forward to offer helicopter services in India as well, given the growing traffic congestion. Innovation and technology is what led to the growth of Taxi Aggregators and it is also what will help them sustain in future.

India is truly going to become the battleground for global cab wars. Indonesia based Gojek and Grab Taxi have already mounted up their India R&D centers. Arul Kumaravel, VP, Engineering at Grab says that they do not intend to start operations in India and just want to get impressive engineering talent, available in Bengaluru. Even if they do come to India it will may be via partnerships.

Indian competitors are also aiming at entering this market soon. MukeshAmbani'sJio Cabs is set to start its pilot testing in Bengaluru. Tygr, a Kolkata based startup has already stepped into couple of cities on a franchise basis with its unique revenue model which has no place for peak pricing. More players like Mahindra & Mahindra have set their eyes on this lucrative aggregator business.

Conclusion

The research highlights that the Taxi market in India is primarily an unorganized sector; however, over the years the private sector has identified opportunity in this sector which has given rise to the organized taxi market in India. Additionally, the growth of taxi aggregators in the organized transport sector has been a significant one.

It surely has overcome the complications of other modes to a great extent and has led to a disruption in the economy.

Prima facie, the most impacted sector due to the rise of the Taxi Aggregators is the unorganized taxi sector. The share of unorganized sector is reducing year by year since the inception of taxi aggregators in 2010. But, it is needless to mention that unorganized sector in India will never see the end of its reign, only because of the growing population, with most being in rural areas and unable to afford the privilege of taxi aggregators. Even in developed cities, organized sector has been unable to meet demand.

This underutilized capability of this sector, provides huge scope which is likely attract more players in this market. Hence, the existing players need to develop distinct capabilities with the help of technology in order to capitalize on the opportunity in this sector in the future, maintain efficiency and face local and global competition.

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