

Challenges in creating egalitarian logistic ecosystem: cases of app-based cab aggregators (ABCAs)

App-based cab aggregators ecosystem

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Nikhil Kewal Krishna Mehta

OB and HR, National Institute of Industrial Engineering, Mumbai, India

Rohit Sharma

Operations and Supply Chain Management, Jaipuria Institute of Management Noida, Noida, India and

Operations Management, National Institute of Industrial Engineering, Mumbai, India, and

Shreyas Chavan

Industrial Engineering, National Institute of Industrial Engineering, Mumbai, India

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Abstract

Purpose – Given the increasing volatility, uncertainty, complexity, and ambiguity, egalitarian ecosystems may play an important role to establish equality among various stakeholders. With this idea, the study aimed to understand conflicts and challenges in creating an egalitarian ecosystem in the application-based cab aggregator (ABCA) market.

Design/methodology/approach – Narratives of various stakeholders involved in the ABCA business were collected. The study involved narrations from direct and indirect stakeholders up to saturation till common themes were found. Grounded theory methodology using constant comparison was explored to interpret the results. After the results were obtained, root cause analysis was undertaken using the why–why methodology to understand ground-level reality.

Findings – In total, 13 major issues were identified using grounded theory for narrative analysis that cab aggregator companies, driver-partners, and riders faced. The stakeholders' inability in the ecosystem to see each other's problems could be accorded to their self-interest, rational boundedness and asymmetric information. These findings collude with Banaji *et al.* (2004) and Chugh *et al.* (2005).

Originality/value – This study explained each stakeholder's perspectives about their counterparts that influence non-egalitarianism. The study further suggested possible areas for solving the issues and promoting cooperation.

Keywords Application-based cab aggregators, Taxi aggregator, Shared economy, Service supply chain, Egalitarian system, Why – why analysis

Paper type Research paper

1. Introduction

The Indian market has witnessed an unprecedented growth of app-based cab aggregators (ABCAs) since 2010 (Anirvinna and Deshmukh, 2020; Shah *et al.*, 2020). The present ABCA market in India consists of two major players and other minor players in limited cities, and the total market size is expected to reach USD 55,294 million by 2025 (Statista, 2021). The direct ABCA supply chain stakeholders comprised riders, driver-partners and cab aggregator companies. The secondary stakeholders included government, fleet owner's aggregator, non-aggregated taxi market and society that influence the operations of the cab aggregator market. ABCA companies are part of the shared economy ecosystem wherein the resources are shared as per requirement without ownership issues (Kashyap and Bhatia, 2018).



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Due to India's growth in trade and services in tier I and II cities, the ABCAs have an annual growth rate (CAGR 2021–2025) of 15.81 % (Statista, 2021). Initially, the ABCA organizations shared their space in cab aggregation and invited driver-partners and the riders on a promising note, offering them attractive incentives. However, given the progression in the business scenario, several changes in policies and practices were observed (Surie, 2018). These changes resulted in conflicting situations among various ABCA stakeholders, including riders and driver-partners. Researchers in the past have reported individual stakeholder concerns (Kalla and Purohit, 2017; Karunakar, 2016; Malik and Bansal, 2017), leaving literature bereft of mutual stakeholder interactions. To support various state governments to tackle the issues of riders and driver-partners, the Ministry of Road Transport and Highways (MoRTH), India, had issued regulatory requirements and guidelines (Chakraborty and Poovanna, 2015). MoRTH also provided instructions on principles of public convenience, safety, environmental security, reducing congestion, asset utilization and shifting from private transportation (GoI, 2016). Since then, the state has been making efforts to regulate the issues of driver-partners, riders and society concerning the operations of ABCAs. MoRTH had nearly finalized the policy on ABCAs and had initiated more discussions with associated stakeholders (Saluja, 2020). However, even after several efforts by ABCAs and the government agencies, conflicting issues continue to haunt the market resulting in the lack of coordination between ABCAs, driver-partners, riders and other stakeholders (local/state/national). These conflicting situations adversely affect stakeholders' motivation and possible participation in ABCA businesses (Mazumdar, 2021). Therefore, their challenges must be studied.

Given the scenario, researchers aimed to integrate, describe and understand all the three stakeholders' challenges. These stakeholders include riders, driver-partners and cab aggregator companies. With the view to understand stakeholder challenges, various research questions were framed:

- RQ1. What is the current status of research on ABCA, riders and driver-partners?
- RQ2. What are the various issues that stakeholders in the ABCA ecosystem face, and how do these overlap, leading to reduced performance/conflicts?
- RQ3. What are the root causes that lead to these issues? and
- RQ4. What are the possible suggestions to overcome such issues?

Following this introduction, Section 2 highlighted the literature review. Section 3 presented the stakeholder root cause analysis, and finally, sections 4 and 5 reflected on specific solutions for dealing with different issues.

2. Literature review

The literature review was divided into four subsections that threw light on service supply chain management, sharing economy, the prevailing ecosystem in ABCA organizations and the need for an egalitarian ecosystem in the ABCAs.

2.1 Service supply chain management

The services sector is an important contributor (64.95 % in 2018) to the world's gross domestic product (GDP) (World Bank, 2020). The growth of the services sector often characterizes a nation's economic progress. The majority of the upstream and downstream, i.e. service supply chain management activities in this sector, promote industrialization through a combination of human, technological and capital resources. Service supply chain management (SSCM) has been defined as the end-to-end management of processes, information, service performance, capacity and funds starting from the supplier to the final customer (Boon-Itt *et al.*, 2017).

Over the last few years, with the flow of information and communication technology, the world has witnessed a rapid rise in on-demand ride-hailing services/ABCAs. In addition, the emergence of disruptive technologies (such as cloud computing, big data analytics and blockchain) has made ride-hailing and ride-sharing more flexible and convenient (Dong *et al.*, 2018). For example, passengers now use app-enabled technologies through their smartphones to book taxis instead of hailing cabs on the streets (Feng *et al.*, 2021). These technological integrations have fostered the ABCA popularity, and as a result, ABCA has become a developing part of SSCM systems. The rise in technology has improved the communication between service providers and consumers and has also helped develop popular ABCAs (Kang *et al.*, 2020). ABCAs employ two key enabling technologies (based on the Internet of things) for providing high service reliability. These services include reducing rider waiting time and enhancing ride capacity utilization. To improve the services further, companies make efforts to dynamically match their resources, i.e. availability of cabs and drivers at the right time, the right price and the right place (Yan *et al.*, 2020). Imperatively, to run the business successfully, it is also important that dynamic adjustment of prices be aligned to meet the supply and demand suitably.

To serve the customers better and to improve the facilities in the service supply chain, sharing economy concept has emerged, and that could be viewed as the collaborative consumption pattern (examples include sharing, bartering, lending, swapping and renting) of underutilized resources for enhancing efficiency, providing social, economic, environmental benefits and minimizing the waste (Martin and Upham, 2016). ABCAs fall under the purview of shared mobility, and the different business model categories, including ride-sharing, ride-hailing and car-sharing (Cohen and Kietzmann, 2014), were introduced. These companies utilize various online platforms to market their offerings and enhance the demands (Owyang, 2016). Companies have initiated various measures to improve vehicle capacity utilization and balance the sharing economy. Such moves could be considered utilitarian as they enhance resource utilization and profit margin for all those involved. All service-provider create ecosystems to enhance collaborative business opportunities and mutual benefits. The objectives of making such provisions remained in enhancing customer satisfaction, service facilities, reducing travel cost per passenger, support in sharing economy, provisioning various social benefits such as allocation of automobile resources, savings in energy, reduction in carbon emissions, and rational allocation (and sharing) of profits among passengers, drivers and service providers (Dong *et al.*, 2018). These phenomena have changed the way consumers gain information about products and services and their attitude towards ownership (Perren and Kozinets, 2018).

The Scopus search for the term SSCM and emerging economy limited to the business management and social sciences yielded 112 studies; however, most of them attributed towards food supply chains (Kashyap and Bhuyan, 2021), green supply chains (Wong *et al.*, 2020) and pharmaceutical supply chains (Dixit *et al.*, 2021). As the ABCA industry is comparatively younger in SSCM, research that discusses the dynamics of various partners and ways to improve the efficiency of the overall industry still appears to be in the nascent phase, and further explorations in this direction could be made.

2.2 Sharing economy and ABCA organizations

ABCA market has been influential in promoting the gig economy in India, which promised opportunities such as income independence, working hour flexibility, being part of a larger market to source customers, information visibility (Kessler and Zhang, 2017). ABCA firms involve sharing economy wherein customer demands are met by creating and sustaining a flexible and shared ecosystem. This ecosystem aligns with the timely supply of needed resources (Kashyap and Bhatia, 2018). The central idea behind creating this ecosystem

remained in creating benefits for the involved stakeholders without ownership issues (Frenken and Schor, 2017). However, operating in this type of ecosystem has been considered controversial. These ecosystems have strengths and weaknesses of their own.

Some researchers argue that a shared economy may create a utopian society, while others assert that such pooling merely remains an eyewash for securing personal self-interest (Schor, 2016). For example, the rise of ABCAs has led to technological disruption and institutional disruption (Laurell and Sandström, 2016). These disruptions have affected society as a whole in positive and negative ways. Safety issues resulting from distraction due to app/smartphone usage leading to accidents, privacy issues due to capturing of riders and driver-partner's data and changing labour protection laws that affect the overall labour ecosystem are some of how issues that have resulted due to the emerging ABCA industry (Rogers, 2015). With increasing enriched ecosystem services inclusive of offering such as social networking platforms, disruptive technologies and collaborative software, Matzler *et al.* (2015) noted more consumers' inclusivity in the business endeavours. Such developments have made the services more focussed and consumer-centric. For example, instant cab booking and pricing depends on the demand and supply information. These cab-based companies work with lower profit margins to attract more consumers and, therefore, initiate arrangements involving passing on more profits/benefits to customers. ABCA firms, as enriched by the specialized partner services, aid in improving the overall service quality of taxi markets (Wallsten, 2015).

Amidst managing such ecosystems in a competitive scenario, ABCA companies also have their fair share of challenges. For example, lack of customer data privacy (Basu, 2017). Further, access economy, platform economy and community-based economy affect cab aggregators based on the shared economy (Acquier *et al.*, 2017). While the changing business scenario impacts internal stakeholders, as they may have to compromise to work in lower profit margins, a competitive shared economy cab model has poorly impacted traditional cab service providers. Since ABCA companies operate with the latest technologies, they could bypass various licensing obligations, thereby supporting themselves to operate at lower costs (Malhotra and Van Alstyne, 2014). The competitive scenario has therefore forced traditional cab operators to change their mode of operations. However, poor infrastructural arrangements, outdated policies and practices, old vehicles, lack of adequate leadership and union powers diminishes the revival of traditional cab services (Edelman, 2015).

2.3 Problems in the prevailing ecosystem in ABCA organizations

The present ABCA ecosystem is complex and ambiguous as it suffers from sustainable social challenges that hinder its social equality (Zinkin, 2020). In addition, the problems include driver-partner strikes, needs of driver-partners, governmental regulations, escalating customer expectations, frequent issues between driver-partners and cab aggregator companies (Menezes, 2019). Driver-partners have often been calling strikes on many occasions. As the serviceability and productivity get hampered, these strikes harm cab drivers and all the involved stakeholders, including cab aggregators, driver-partners and riders. In addition, these strikes also affect several riders as their day-to-day life is affected (Choudhury, 2018). The driver-partners demand change in the existing poor incentive structure, regulations for monitoring pricing, improvement in fewer incentives even after completing the minimum number of rides (Bhatia, 2018), high working hours (Goswami, 2017), and improved and transparent insurance policies (Jain and Busvine, 2017). Surie and Koduganti (2016) highlighted that cab driver-partners preferred their income security over other forms of social security, e.g. taxi unions and collective bargaining.

Governmental norms largely left those involved to work under tightened regulations, affecting their sense of freedom. Comini *et al.* (2018) suggested the role of the Competition

Commission of India (CCI) in managing the increasing number of complaints against these companies that largely control the market. Since most of these companies are multinational companies, they often receive threats of getting banned in India and other countries (Thomson and Lanxon, 2019). Further, their alignment with local governments' rules and regulations has often been questioned.

The major customer expectations include comfort, trust, reliability, safety, affordability, driver behaviour, Global Positioning System (GPS) tracking, driver's knowledge of the local area, availability of cabs and continuous service (Sherchan *et al.*, 2013; Paliszkievicz and Klepacki, 2013; Horsu and Yeboah, 2015; Randheer *et al.*, 2011; Rajesh and Chincholkar, 2018; Chaudhry *et al.*, 2018; Maheshwari, 2017; Sharma and Das, 2017; Kumar and Kumar, 2016). Furthermore, Tamilselvi and Panda (2021) brought the needs of women passenger safety. In addition, real-time arrival times and wait times also appeared to be critical factors for riders (Brown and LaValle, 2021; Ma *et al.*, 2020), surge pricing (Cachon *et al.*, 2017; Ashkrof *et al.*, 2020; Sharma and Mishra, 2020).

2.4 Need of egalitarian ecosystem in ABCA firms

Egalitarianism is an idea of considering people to be equal (Arneson, 2013). The egalitarian objective remains in creating an ecosystem that encourages equal scope for everyone (Siegel *et al.*, 2011). Bartling *et al.* (2009) suggested that egalitarian individuals are less competitive following works with the spirit of equality; therefore, they may be accounted more collaborative being. Egalitarianism is a philosophical outlook that considers equality and equal treatment across sex, religion, financial status and political views (Scheffler, 2003). There are different ways of classifying egalitarianism. One way of classifying is horizontal and vertical egalitarianism wherein vertical system different layers of society coexist even in the presence of hierarchy (Frangipane, 2007). Knight and Brinton (2017) talked about how egalitarian familism, liberal egalitarianism and flexible egalitarianism could influence endeavours.

The concept of an egalitarian ecosystem was proposed keeping in mind its several potentialities. For example, being egalitarian could solve important issues such as increased participation with equality, as such equalities may help overcome internal competitive pressures within the ecosystems. Egalitarianism could also help driver-partners achieve the status of equals as they desire, and the companies offering such opportunities may stage themselves as equal opportunity equal rights companies. For ABCA, companies' egalitarianism will mean improvement in synergy and trust with all the stakeholders and at the same ensuring that they are earning desired profits and growth.

3. Methodology

As the objective of this study remained to establish egalitarian possibilities by identifying conflict root causes, researchers analysed the narratives of direct stakeholders, asking them about their expectations of other stakeholder partners. Understanding their perspectives and feelings towards partner stakeholders enabled researchers to understand differing opinions (conflicts) that create inequality. Eric Berne brought these inequalities in three spaces of life positions (I am not okay, others are okay; I am okay, others are not okay; Others and I, both are not okay) while equality in one space called "Others and I, both are okay" (Berne, 1961; Ernst, 1971). These life positions have often been applied in organization and education to understand okay. Although certainly, okayness is an expected position in any organizational set-up for the stability of the people and processes at work, many organizational endeavours remain in other three not okay positions, and these not okay positions create challenges in establishing an egalitarian ecosystem. Therefore, researchers proposed that organizations collaborating to create ecosystems may arrive at okayness by overcoming their conflicts with

partner stakeholders. Thus, the data were gathered by collating the viewpoints of the related stakeholders (as depicted in Table 1). Based on the aim of the study, the number of respondents was justified (Malterud *et al.*, 2016).

Researchers used two influential key concepts in the pursuance of achieving the objectives. First, grounded theory (Corbin and Strauss, 1990) for linking data analysis with the theory, and secondly, root cause analysis to reach the root cause of the problems. Understanding root causes would support in highlighting similar or dissimilar perspectives seeking clues for okay (egalitarian) or not okay positions (non-egalitarian) (Berne, 1961), where the not okay positions were indicative of conflicts among the involved stakeholders. Researchers followed the Corbin and Strauss's version of grounded theory, where each step of undertaking the research process has been well-defined (Corbin and Strauss, 1990).

3.1 Selection of participants

Researchers first identified and selectively chose the important stakeholders (Table 1) to understand the ecosystem dynamics. This selection was accorded to notice the context of the logistic ecosystem set-up and the change stakeholders go through in the given context.

3.2 Rapport building, gathering the data and contracting

The interviews were initiated by building rapport with the stakeholders. Researchers informed the participants about the purpose of the research. Some of the participants, essentially cab driver-partners and company executives, agreed to provide details during the interviews on the condition of anonymity. We agreed upon their request. Some interviews were conducted in Marathi and Hindi, while others were in English to suit the participant convenience. The interviews in Marathi and Hindi were translated back-to-back into English.

3.3 Reading and analysing the text so deciphered to form categories

As suggested, researchers began reading and rereading the transcribed text. Observations were made for the pauses and the context in which the participants displayed their emotions. Memos were maintained throughout to ascertain what was deciphered in the given context of then and there. To meet the requirements of grounded theory, researchers undertook gathering and analysis of data together. The series of interlinked questions were set to remain

Table 1.
Various stakeholders
as participants in
the study

Stakeholders	Participant size	Participant no.	Duration (minutes)	Pages	No. of words (Including memos)
Riders	5	1	34	03	978
		2	36	03	1,522
		3	28	02	753
		4	27	03	1,243
		5	11	01	532
Driver-partners	5	1	53	06	2,071
		2	48	03	1,119
		3	50	03	1,236
		4	35	02	856
		5	34	03	911
ABCA executives	2	1	32	02	979
Fleet owners	2	2	35	02	1,002
		1	36	02	961
		2	32	02	936
Summary	14		516	37	15,099

affirmed and not deviate from the study's premise. However, freedom was taken to sequence the questions depending on the requirements:

- (1) What issues did you face while travelling by operating app-based cabs?
 - What is it like to travel in app-based cabs? (For riders)
 - What is it like to drive with app-based cabs? (For drivers)
 - What is it like to be associated with app-based cabs? (For fleet owners)
- (2) What are your challenges in this context? Were there any negative circumstances that you faced?
- (3) Do you have any expectations from app-based cabs? What are your demands, and why do you think the companies could not satisfy them?
- (4) What changes do you think are essential to make the service better?
- (5) How can a company sustain itself for a longer time?

The minimum duration of the interview was 11 min, and the maximum duration of the interview was 53 min (refer to [Table 1](#)). Coding consensus was obtained through intercoder processes (with three researchers). First, the data were read and reread several times to identify open codes. Then, the emerged codes that pertained to the same phenomenon were grouped to form categories (axial codes).

3.4 Events and categories

Events such as the description of owning or loaning vehicles, customers' problems and their actions in managing drivers finance monthly or random pricing from riders. The results are depicted in [Table 2](#).

3.5 Theoretical sampling

[Corbin and Strauss \(1990\)](#) identified categories (as shown in [Table 2](#)) as the basis of theoretical sampling. Since sampling in the grounded theory did not refer to the number of individuals interviewed, the current work was aligned with theoretical sampling fundamentals as suggested by [Corbin and Strauss \(1990\)](#). Researchers identified concepts (open codes) with constant comparison of viewpoints, events, actions interactions obtained through interviews ([Table 3 and 4](#)). The viewpoints here referred to the concepts (their properties, dimensions and variations) drawn from data (interview) in the pursuance of collating the categories. For example, interview-1 responses of the first driver stakeholder were compared with the interview-2 responses of the second driver stakeholder. The comparisons were continued for all the interviews (i.e. interview with the fifth driver). Understanding their perspectives enabled the researchers in reviewing concepts and put all the similar concepts into categories. The root cause analysis for each stakeholder was undertaken to determine antecedents (conditions) that foster conflicts. Gathering and analysing the data until each category's saturation was obtained. In this pursuance, axial and selective coding was then undertaken. Various categories were related to subcategories (axial codes), and the relationship was tested against the data. The categories were also developed by merging or disintegrating existing categories, e.g. "Pricing" and "Payments" issues, into a category called "finances". The saturation level was achieved with the given number of respondents, and no new theme emerged, or any new perspective was added. [Charmaz \(2006\)](#) believed that the addition of new data would not have given any new theoretical insights beyond the saturation point.

Concepts Open Code	Axial code	Categories Selective code
Initially, pricing was not that high Surge pricing, different prices to different customers No cars available (even after purchasing pass) Partial payment by cash options is not available	Pricing and Payments issue	Rider service quality deteriorating
No cars available (even after purchasing pass) Scheduled ABCA ride does not arrive on time Actual wait time is sometimes different from estimated wait times	Cabs not available	
Driver not coming on location Driver cheating by starting without me Call not picking The driver asks to cancel the trip The driver asks for start and end location (for confirming or for his convenience)	Driver misbehaviour	
Issues in ABCA pool about co-passengers and longer wait times	Issues in cab sharing	
No credit facilities Income loss for 16 days equated monthly instalment (EMI) missed for that month After deducting the cost of operation and other expenses like toll, food, maintenance, only 35% is left for the driver	Reduced profits	Drivers job satisfaction reduced
Targets are hard to meet Overtime work to fulfil lost income No appreciation by the company for providing the services	The pressure to complete rides for a bonus Less company connect	
Road accidents are common Had continuously worked for 36 h with 2 h of sleep in between must eat on street-side food stalls Not able to look after own health	Safety and Health	
Facebook, other social media were used for organizing a strike in Mumbai Those not in contact or not involved continued to operate during the strike unable to help the driving- partner (DP) to generate revenue as much he had expected	Strikes and opposition from other agencies	Hurdles for operating ABCA
This has led to situations where drivers are logging out of the platform <i>en masse</i> , leading to a shortage of cabs ABCA can provide opportunities to drivers to earn additional income by way of advertising on the car and look at the feasibility of introducing tips to drivers Benefits are being phased out. The drivers often compare it with those looking at why they bought a cab on loan. This results in revolts on cab drivers as they might feel cheated	Not profitable and less supply of drivers	
Changing and stringent regulations Sufficient relaxation not provided Regulations vary with different state governments. So difficult to operate across states To prevent bypassing of regulations by ABCA	Government regulation	

Table 2.
Coding schema–
emergence of concepts
and categories

(continued)

Concepts Open Code	Axial code	Categories Selective code
Loss of business for local taxi players and unions	Job losses	Issues faced by community
Loss of business to other transport operators like Autos and other shared transport players		
Increased cars on roads	Pollution and traffic	
More usage of private vehicles results in increased pollution		

3.6 Relations among categories and our assumptions

There was a sense of assumption that brought the researchers to view the perspectives of each stakeholder. It was assumed that they all were on different pages, and these differences depict the challenges in establishing an egalitarian ecosystem in logistic companies. Bernian okayness and non-okayness hence became central in understanding relations among categories. We were also careful in identifying deviant instances that might diverge from our basic assumption and whether we could place any relevant accountability for such divergence. This *prima facie* helped the researchers identify and collate concepts into categories, establishing patterns and relationships.

4. Results

The results have been depicted in [Table 5](#).

4.1 Rider analysis

4.1.1 Pricing. When ABCA was launched in India initially, companies provided offers and cheaper services which attracted many riders to the platform. However, these companies burned cash to acquire the market share, resulting in huge losses. So, to earn more income from already acquired riders, different pricing strategies like surge pricing, person-to-person price differentiation, region and location-based differentiation were initiated. For example, companies have been practising surge pricing to match the supply at peak times by increasing the prices. Similarly, price differentiation as per location, person and time of the day has been practised customizing their service and generating maximum value. However, riders feel these fluctuations are irrational, and the felt irrationalities bring them dissatisfaction.

4.1.2 Unavailability of cabs. An increasing number of riders and fewer drivers led to the crisis, i.e. cab unavailability. In addition, increasing traffic in certain locations of cities dissuade cab drivers, and they cancel or delay cab arrival time. Therefore, the first point of complaint escalation is late reporting.

4.1.3 Driver misbehaviour. Drivers ask drop location, asked to cancel trips, professionalism issues and not following ABCA company guidelines led to driver misbehaviour cases. The driver-partners work as independent partners, but still, they bear the responsibility to follow the rules prescribed by the ABCA. Due to lack of motivation, preoccupations, personal income constraints and sometimes convenience, they request consumers to drop location and cancel the rides. These problems are escalated due to poor understanding of mobile applications, interpersonal skills or other personal reasons.

4.1.4 Car pooling. ABCAs have introduced carpool/share services to cater to a larger base of riders. Higher pickup and increased travel time dissuade riders. ABCA companies tried to

Particulars	Driver 1	Driver 2	Driver 3	Driver 4	Driver 5
Request for anonymity	Yes	Yes	Yes	Yes	Yes
Company	A	A	B	A	B
Experience (in years)	2.5	3	3	0.5	2
Joining app-based company	Opportunity	Opportunity	Opportunity	–	Fired from the previous hotel where he was working
Cab owned/rented	Rented	Rented	Owned	Rented	Owned
Initial investment	NIL	Around 9 lakhs	Nil	Around 8 lakhs	Nil
Gross income (Total earning)	50,000	50,000	36,000	45,000	40,000
% Commission to cab company (% of earning)	25%	25%	25%	25%	25%
Fuel and maintenance expenses (% of earning)	35%	35%	40%	35%	35%
% Commission to the fleet owner	10,000	9,000	NA	10,000–12,000	NA
EMI	NA	NA	20%	NA	20%
Net income up to (INR)* (1INR = 0.014 USD)	20,000	20,000	15,000+ Bonus on targets	15,000	20,000
Life in Mumbai	Difficult. Spouse working to support	Difficult. Looking after extended family	Difficult	–	Difficult
Driving hours	13 h	12 h	12 h	12–13 h	12 h
Drive extra	To meet EMIs and pay loans; Sleepless	To meet EMIs and pay loans; Sleepless	To meet EMIs and pay loans; Sleepless	To meet EMIs and pay loans; Sleepless	To meet EMIs and pay loans; Sleepless
Sleeping time (in 24 h)	5–6 h	3–4 h	3–4 h	4–5 h	3–4 h
Problems of less sleeping	Acidity	Acidity	Acidity, Pain	Acidity	Acidity
Wake up strategy	–	Chai	–	–	Chai
Strikes create problems	Has to overwork to manage expenses	Has to overwork to manage expenses	Has to overwork to manage expenses	Has to overwork to manage expenses	Has to overwork to manage expenses
The problem of city traffic as a reason for the delay	Yes	Yes	Yes	Yes	Yes
Problem with dynamic pricing	Yes, causes conflict with riders	Yes	Yes	Yes	Yes, causes conflict with riders

(continued)

Table 3.
Constant comparisons
of driver-partners
(concepts emerging
from the interview)

Particulars	Driver 1	Driver 2	Driver 3	Driver 4	Driver 5
Expectations from company	Timely payments to avoid overbearing compound interest while paying EMIs.; Understand drivers' position; Introduce Better friendly policies; Helps the conflict of rider and companies, so drivers have to bear the rumble	Provide benefit for 5-star customer rating; Provide security provisions from The company is presently limited to road accidents; the present operation model does not allow proper sleep that affects functioning; Be humanistic If they can see us as humans. Everything is business-oriented and money-oriented.	The company must deal with the clients directly on app issues such as price surge, cab unavailability, and mainly price surge Drivers should not be involved; Help drivers in bailing out customer issues essentially when drivers are unwell; Provide us benefits and job safety; increase Greenlight hubs as they are distantly located in Mumbai	Set lines about the percentage of commission to be charged; Family insurance, medical benefits; Be humanistic; Fixed income model; Traffic management	Targets are quite ambitious against existing road traffic; Company offices (Greenlight hubs) are very few. Everything cannot be discussed on the telephone or at the call centre
Expectations from riders	Be courteous and gentle. Directly deal with companies for pricing issues Riders should not involve us in their conflict with the companies	Customers sometimes misbehave because they feel that we are cheating them, but generally, prices are high during peak time Be courteous and gentle. Directly deal with companies for pricing issues	Be courteous and gentle. Directly deal with companies for pricing issues	Be courteous and gentle. Directly deal with companies for pricing issues	Be courteous and gentle. Directly deal with companies for pricing issues
Expectation from fleet owner	–	–	Hep drivers on managing the maintenance of cars	–	Baring maintenance costs when on intercity rides on my own (though they help)

(continued)

Table 3.

Particulars	Driver 1	Driver 2	Driver 3	Driver 4	Driver 5
Expectations from government	Increasing Fuel cost Traffic management Living expenses are increasing Lose income to strike	Increasing Fuel cost Traffic Management ongoing metro construction- work delays the traffic Lose income to strike	Lose income to strike	Set lines about the percentage of commission to be charged; Family insurance, medical benefits; Be humanistic; Fixed income model; Traffic management; Increasing dearness	Lose income to strike

Table 3.

combine riders on a particular route in a single cab, which resulted in problems for riders and drivers. ABCA companies have started ride pooling services to increase cabs' occupancy rates and create a sustainable ecosystem.

4.2 Driver analysis

4.2.1 *Reduced profits.* Profits earned by the DPs have significantly reduced. Also, as most drivers have liabilities (paying instalments), income less than expectations dissatisfy them. As per the initial offering by the ABCA companies, many DPs work with the expectation of higher returns. However, due to changing market conditions and subsequent losses, the ABCA companies reduced the costs' benefits.

4.2.2 *The pressure to complete rides for bonus.* The DP has certain weekly targets to meet, after which they are offered certain cash bonuses. This arrangement results in working for longer hours, increasing their physical and mental fatigue, bringing them exhaustion. Driving in traffic also increases burnout. For example—over 12 h and working during the nights. As the ABCA's face a dearth of DP supply, they use this system to generate more man-hours.

4.2.3 *Less company connect.* DPs are not part of any unions. Traditionally the DPs were used to working on offline platforms. In the case of the ABCA business model, the drivers are expected to operate using the mobile application, and for the needed support, they could visit the nearest ABCA driver offices. However, such offices are sparsely located, and thus DPs feel less connected to the company. Also, they receive less or no appreciation from the company for the kind of work they do. The ABCA companies preferred to connect through the application or on the telephone (as they do not have to create local infrastructure in all cities where they operate). ABCA companies are constrained due to limited resources. Lack of human touch in communication dissuades them further.

4.2.4 *Safety and accidents.* Even after insurance, DPs face accidents due to smartphone usage while driving, long working hours leading to reduced attention and driving in unknown localities. However, as the complete platform is based on the mobile application, it is required that they use the app and follow ABCA guidelines to generate profits.

4.2.5 *Poor motivation.* Reduced cab drivers could be attributed to the companies' non-fulfilment of promises once made to the cab driver. The companies could not fulfil their promises due to increasing investor demands and its expansions in various geographical locations. Governmental restrictions and changed business scenarios also have enhanced

Particulars	Rider 1	Rider 2	Rider 3	Rider 4	Rider 5
Issues faced while using app-based cab services	Dropping at the wrong location; Cab's unavailability– Taking too long to arrive unnecessary cancellation charges; behavioural issues of the drivers	Drivers dropping at wrong locations; Cab's unavailability– Long waiting time; waiting time increases after booking the cab; bear unnecessary cancellation charges; would not switch on air conditioners	Dynamic and surge pricing at peak hours; Cab's unavailability– Driver demanding ride cancellation Unprofessional/ rude behaviour of the driver Long waiting times Cancellation charges are not handled properly Mobile phone use by drivers and safety issues; Delayed customer service response	Trouble in understanding map directions/ rider location (if several roads are connected at a junction); Extra cash demand at night from the app computed fare (remote locations); Driver request for cancellation of rides; Inability to interpret Google Maps or the directions when Google Map fails	The long process of choosing the destination, seat capacity; Slow interface; Inaccuracies in completing the booking, Cab's unavailability
Expectations from app-based cab organization	Train the cab drivers with mobile application; Maintain proper time management by the driver; Tariff charges to be properly fixed	Customer feedback is important; Maintain price transparency; customer service not available 24 × 7; incentives to the rider if the cab is delayed. Cabs should be available post coupon purchase	Enable users to book rides in advance; More dynamic customer support; Either stop the surge pricing or at least put a cap of 1.5 times on it; Some basic training of newer drivers, of English language, directions, general mannerisms, not smoking inside the car, safe driving; Review and take actions against false bookings; Add tipping options	Charges on tariffs should be properly fixed, cab driver training on mobile application usage, and proper time management; riders should give incentives in case of driver delays for more than needed time. Destination in the required time frame, limit overcharging drivers, and fixed pricing	Minimizing the processing time; Application optimization for the different users; limited to lower ratings only, Cab sharing
Expectations from Government	Tariff charges to be properly fixed	Maintain price transparency	Either stop the surge pricing or at least put a cap of 1.5 times on it	Charges on tariffs should be properly fixed	–

Table 4.
Constant comparison table–riders

company expenditure. These factors could be attributed to cost-cutting, thereby affecting DP motivation.

4.3 ABCA analysis

4.3.1 *Strikes*. Strikes by DPs to raise fares is a serious issue (faced by ABCA organizations), resulting in heavy losses. They also face agitation from local taxi operators as they take their share of customers. In some cases, the ABCA organizations and DPs criticize the local taxi operators for violating regulations and norms regarding licenses and other mandatory compliances.

4.3.2 *Business model not profitable*. The ABCA organizations have not generated sufficient profits in India due to obvious flaws in their business models. Their operating model is similar in all countries where they operate. Therefore, their model does not address the issues specific to local Indian conditions. Other issues such as increasing prices, pressure from competitors, local taxi bodies and transportation infrastructure could not be ignored.

4.3.3 *Government regulation*. MoRTH, the Government of India, has taken several initiatives to establish order in the taxi business and has tried to pacify ABCA and other taxi companies/unions. As the ABCAs consider themselves technology companies, the laws and regulatory norms are still in developmental stages in India; therefore, there are issues for other taxi operators other than ABCAs. These issues lead to frequent tensions between ABCAs, the Government and other taxi operators.

The conflicts among these major stakeholders are due to the conflict of interests, implicit forms of prejudice, the tendency to overclaim credit and favouring own group. Everyone in the group has their limitations, resulting in pressure for other collaborating partners. Also, before the entrance of ABCAs in India, riders and drivers were used to different transportation business models. This change led to implicit prejudices, which unintentionally resulted in conflicts among riders and drivers. Furthermore, the drivers and ABCA organizations were always at loggerheads due to the commission extracted by ABCA organizations, resulting from the tendency to overclaim the credit. Moreover, all stakeholders (Government bodies, taxi unions, to name a few) favour their own set of groups, resulting in biases towards their group and leading to conflicts.

Disruption is often the short-term gain for long-term losses. It leads to a lack of empathy towards the stakeholders, resulting in a poor ecosystem. This ecosystem is not conducive for the organic and sustainable growth of the ABCA organizations because each stakeholder is in search of their benefit and does not look beyond self-interest and rational boundedness. The stakeholders accrue information and make asymmetric information decisions using the lens of self-interest. While the objective of business from the modern theory of the firm is to maximize profit for all the stakeholders, market penetration fails in doing so. Table 6 depicts the root cause analysis combining Fishbone analysis with why-why analysis. The overall view of the ecosystem is depicted in Figure 1.

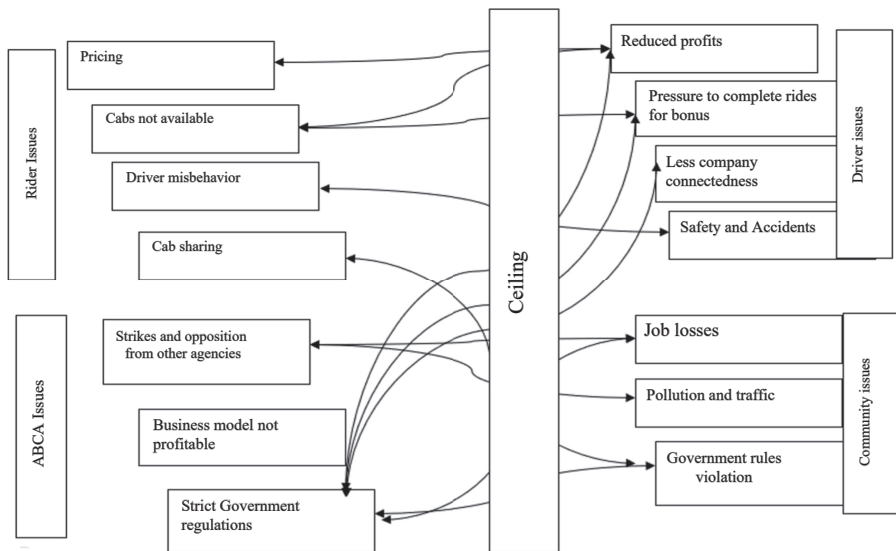
Table 5.
Rider and driver issue
types in ABCA

Rider	Driver	Issue Types	
		ABCA	Community
Pricing	Reduced profits	Strikes and opposition from other	Job losses
Cabs not available	Pressure to complete rides for a	agencies	Pollution/
Driver	bonus	Not profitable	traffic
misbehaviour	Less company connectedness	Government regulation	
Issues in cab	Safety and Accidents		
sharing			

	Causes		Why	Why	Why	Why	Why
EFFECT: Conflict amongst stakeholders	Rider issues	Pricing	Surge, different from different customers	Take advantage of peak times, match demand, and supply	Reduced profit for driver and ABCA		
		Cabs not available	Increasing riders and reducing drivers	Reducing benefits to drivers	Reduce company costs		Pressure from investors
		Driver behaviour	asks drop location, travels from a different route, wrong pickup rider	Earn more income, lack of training/app literacy	Reduced income due to changing policies, family background		Poor Financial conditions
		Cab sharing	Platform issues	Longer travel/pickup time	Increase riders/sustainability		Increase revenue/government regulations
Driver issues	Reduced profits		Reducing benefits to drivers	Reduce company costs	Pressure from investors		
	Pressure to complete rides for bonus		Increase efficiency	Meet demand with fewer drivers	Fewer drivers boarding		
	Less company connect		Lack of company centres, less appreciation	Technology platform	Global company policies		
ABCA issues	Safety and accidents		Smartphone usage, long working hours	Requirement as per business model			
	Strikes and opposition from other agencies		Driver DP issues, local taxi body issues	Loss of customers for local taxis, also resentment due to side-lining of rules			
	Business model not profitable		Lost competitive advantage in India	Presence of other alternatives, increase of prices			
Other stakeholder issues	Strict Government regulation		ABCA violating taxi guidelines in India	ABCA does not consider themselves to be taxi companies	Part of the business model		
	Job losses		Pressure on Govt to regulate	Strict Government regulation			
	Pollution and traffic		Pressure on Govt to regulate	Strict Government regulation			

Table 6.
Root cause analysis—
combining fishbone
analysis with
why—why

Figure 1.
ABCA ecosystem



5. Implications, discussion and scope for future work

The present study aimed to understand conflicts and challenges in creating an egalitarian ecosystem in the ABCA ecosystem. The study is important because it shows that the stakeholders in the ABCA ecosystem are not on the same page, which creates space for a communication gap and seeds the need for working on methods that can overcome the challenges in developing egalitarian ecosystems. All stakeholders' equality marks an egalitarian ecosystem; however, short-term gains on how ABCAs enter to gain market foothold lead to conflicts among stakeholders. The study is also important for academicians because it poses the challenging case of ABCAs in emerging economies. The study brings an opportunity to all the stakeholders in the ABCA ecosystem to reflect beyond themselves.

5.1 Theoretical implications

The present study makes important contributions towards creating an egalitarian ecosystem in the case of ABCA organizations in a developing economy context. A why-why and Ishikawa's fishbone analyses were carried out to depict the root causes of inequalities among various stakeholders. The study attempts to advance the research on egalitarianism ecosystems and highlights the prominent thirteen issues (from the rider, driver, ABCA and community perspectives) that need to be solved for realizing egalitarian ecosystems. From a theoretical point of view, the study delves into the egalitarianism school of thought and paves the way forward for the ABCA organizations as to how the issues need to be solved amicably. The study also touches upon various aspects of sharing economy and the service supply chain in ABCA organizations. The study pinpoints the need to develop virtues such as equality, sympathy, empathy, care, and therefore, it helps us establish trust, which is a key element towards building and nourishing successful and sustainable relationships. These relationships may be customer-centric, corporate-centric, human-centric and organization-centric. Further, the study highlights how ABCAs can enhance trust and synergy with the stakeholders for their sustainable growth.

5.2 Managerial implications

The results highlighted in the study have critical significance for practitioners. The results highlight the major areas that ABCA organizations need to revisit to overcome stakeholders' disconcerts. The practitioners need to maintain a perfect balance in delivering the stakeholders' promises for ensuring their sustainability. They should incentivize rides and reward the drivers based on performance parameters to avoid discontentment with the ABCA organizations and high driver response rates. This strategy will ensure a win-win situation for both the ABCAs and the DPs, as the DPs will be motivated to get more rides. A subsidy-based incentive can be one of the probable solutions (Xu *et al.*, 2018). In the perseverance of establishing coordination, social value-driven ecosystems are required. Therefore, the practitioners should focus more on establishing social values and trust-driven mechanisms and investing more in social sustainability/citizen welfare initiatives. Their greed for short-term gains and offering lower-priced services to attract customers could be dangerous for all the stakeholders and therefore does not seem sustainable. In the long term, competitors would suffer, and internal primary stakeholders (essentially poor cab DPs) would suffer badly.

For riders, the ABCAs can use disruptive technologies in optimizing routes that have less traffic and are easy on the pocket. The main concern for the riders happens to be surge pricing and the unavailability of cabs during peak office hours. ABCAs can rely on artificial intelligence and big data-based algorithm scheduling to resolve such issues. This reliance would aid in decongesting city traffic and save riders from surge pricing. In addition, this arrangement might enhance passenger loyalty at a larger level as they would get cabs at their desired locations as per their demand and non-surge prices. Route optimization is also probable solutions that will help fuel savings for the DPs who operate in remote geographical locations.

As far as the Government and regulatory agencies are concerned, the ABCAs should best comply with the rules.

5.3 Discussion and conclusion

Working with poor profit margins dissuades all those involved in the ecosystem. In order to have a short-term gain, the cab companies offer services that could be detrimental to all those involved in the long term. Such services bring all the stakeholders to conflicting places, competition with each other merely for respective survival, and trying to maximize gains as much as possible for them. Such outcomes demonstrate ecosystem partners becoming rational bounded with asymmetric information as none of the stakeholders looks beyond their self-interest.

Considering the need to look beyond self-interest, asymmetric information and rational boundedness (mentioned in Banaji *et al.* (2004) and Chugh *et al.* (2005)) would reduce increasing conflicts and may aid in shaping the collaborating and egalitarian environment. This awareness would allow the stakeholders to adjust to each other's situations. The study's findings are in line with Banaji *et al.* (2004) and Chugh *et al.* (2005). By identifying the existing gaps among stakeholders in the ABCA ecosystem, researchers dream of approaching an egalitarian system hoping that stakeholders collaborate in the ecosystems with sensitivity and not merely to manage their ruthless survival instincts.

Future studies can focus on creating social value-driven ecosystems that shall take care of all the stakeholders and aim for an egalitarian ecosystem. In future studies, reflection must be done to break the ceiling among different stakeholders involved in the business. Open communication and empathy to see through the ceiling is the need of the hour that ABCAs is required to instil with open-mindedness. Short-term gains never bring up a sustainable solution and are more disruptive in the long term. Therefore, we tend to experiment with various ABCA stakeholders using the T-group process in future studies.

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About the authors

Nikhil Kewal Krishna Mehta is presently working as associate professor in the organizational behaviour and human resource management area at the National Institute of Industrial Engineering, Mumbai. His research areas include communication and behaviour. He focuses on andragogical developments to facilitate communication professional and social skills among engineers and establish workplace sensitivity for ground-level supply chain workers, including truck drivers, delivery boys and transgender employees. He is passionate about publishing research manuscripts in the Hindi language. Nikhil Kewal Krishna Mehta is the corresponding author and can be contacted at: nkm@nitie.ac.in

Rohit Sharma is presently working as assistant professor in the decision sciences area at the Jaipuria Institute of Management, Noida. His main research areas include operations and supply chain management, sustainable operations management, agribusiness management and logistics management. He holds a PhD in operations and supply chain management from the National Institute of Industrial Engineering, Mumbai. His publications have appeared in leading journals such as Computers and Electronics in Agriculture, International Journal of Information Management, Computers in Industry, Computers and Operations Research, Technological Forecasting and Social Change, Journal of Enterprise Information Management, the International Journal of Logistics Management and International Journal of Logistics: Research and Applications. He was awarded the 'Industry 4.0 Award' by the IEOM Society in 2021 and the Tata-Cornell Ag Initiative Scholarship at the second International Global Food Security Conference in 2015.

Shreyas Chavan is currently working as business operations manager with Amazon Ads. He holds a PGDIM in operations and SCM from the National Institute of Industrial Engineering, Mumbai, and a BTech in mineral engineering from the Indian Institute of Technology (Indian School of Mines), Dhanbad.

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