PEAK Urban

Digital payment systems and financial inclusion for auto-rickshaw transport operator-drivers in India

Authors: **Lucy Baker[1], Dheeraj Joshi[2] and Tim Schwanen[3]**

[1,3] Transport Studies Unit, University of Oxford
[2] Independent researcher

Editor: **Francisco Obando**

This research brief outlines the implication of digital payment technologies and credit scoring for self-employed workers operating auto-rickshaw transport services in Bengaluru, India. Despite innovations in financial technologies and the entry of platform-based trip aggregator platforms, Ola and Uber, there are challenges for operator-drivers in using digital payment systems. We highlight opportunities for auto-rickshaw taxi driver workers' unions and civil society organisations to promote operator-drivers' financial inclusion and raise awareness of the risks and limitations of digital payment and platform technologies.

Background

Micro-entrepreneurship and self-employment are sectors increasingly recognized as contributing to poverty alleviation and income generation in low- and middle-income countries (LMICs).

It is estimated in South Asia these sectors account for 80 per cent of employment (ILO, 2019). Marketplaces in LMICs are made up of micro-entrepreneurs from a variety of sectors including agriculture, services, retail and transportation. Though technological changes are expected to strengthen the sector, they can also have unintended consequences on the most vulnerable groups and supporting them in adjusting to new financial technologies will be of vital importance to achieving social justice in today's economies.

There is little evidence of how those whose livelihoods are rooted in cash-based economies are adapting to new technologies, or their immediate impact on financial inclusion. There are issues yet to be addressed, such as: the limited use of digital payment technologies; the significance of cash for various payments; and the risk of exposing credit histories that harm borrowers' chances of accessing low-cost finance. It is particularly those of vulnerable and marginal communities who face such challenges, whilst conforming to the technologies and techniques of financial companies.

The experiences of auto rickshaw operator-drivers are analysed in this brief. Operator-drivers have limited access to mainstream financial institutions and enter into high-cost loan contracts to purchase the three-wheeled vehicles used to operate their taxi services. Financial technology is playing an increasingly important role in operator-drivers' acceptance of fares and use of aggregator platforms, Ola and Uber. From the analysis we make recommendations for a supportive ecosystem to these micro-entrepreneurs.

Key findings and recommendations

Auto rickshaw operator-drivers face challenges in adapting to digital payments, including

- Cost and inconvenience of getting cash out
- Payment delays when work is mediated by platform aggregators
- Difficulty managing household spending using digital payments

Majority of operator- drivers excluded from accessing low-cost loans

Reductions in the cost of finance offered by new companies are small and their terms and conditions have not improved. Producing more financial data for lenders can expose negative borrowing performance keeping the costs of borrowing high. Regulating the finance market to reduce the cost of loans and improve lending terms is necessary.

Auto rickshaw drivers' unions and civil society groups can assist operator-drivers, by:

- Developing skills and knowledge on topics relating to digital payments and credit scores
- Lobbying for improved finance, better access to cash, convenient business start-up, changes to traffic penalty fines, and fairer working conditions
- Support through co-operative lending groups to reduce negative finance data

What challenges do operator-drivers experience in adapting to digital payment systems?

Digital payments are limited by the significance of cash for everyday transactions, particularly if getting cash out is costly, or inconvenient. To a lesser extent, the diversity of technological and language capabilities among operator-drivers reduces their acceptance and trust of digital fares.

Cash out: ATM costs and inconvenience

The fees charged for withdrawing cash from ATMs[1] and the inconvenience of doing so, makes getting cash out difficult for operator-drivers. For some people, ATM fees can be avoided by withdrawing more cash, less frequently. However, many operator-drivers cannot easily do this because of small and fluctuating daily incomes and low account balances. Much of their daily income is spent without the opportunity for it to accumulate. Avoiding higher withdrawal fees by locating an ATM of a driver's own bank, or a state bank, is not always possible due to time and cost constraints.

The denominations of notes available from ATMs (minimum 100 INR) also means that the process of getting cash out deters operator-drivers from making use of bank accounts and accepting digital fares. Operator-drivers suggest they want access to all the money available in their account when withdrawing cash. For example, a driver may have an account balance of 580 INR, but would only be able to withdraw 500 INR leaving a significant proportion of their balance inaccessible.

Digital platform design

Digital payment platforms, or "e-wallets", such as PayTM, Phonepe, Bharatpe and GooglePay do not always design their products in a way that includes the needs of all users across India. Many are left out and find the digital platforms either difficult to use, or irrelevant to their lifestyles. This particularly affects those who are less used to using smart phones, such as an older generation of operator-drivers about 45 years of age or more, and those who do not use, or are not fluent, in English language.

Digital wallet companies often reward customers with cashback on transactions and discounts on travel bookings, cinema tickets and restaurants, for example. However, we have found that the rewards are not as relevant to operator-drivers and are designed exclusively for middle-class consumers. Without incentive to use e-wallets, operator-drivers are more inclined to request customers to pay using cash.

"I need cash for everyday things. I rent this vehicle and I need to pay cash to the vehicle's owner. I need cash for fuel and all the household expenses."

- Auto rickshaw operator-driver 1

1 Up to 5 free transactions allowed per month at customers' own bank and 3 at other banks, beyond this allowance banks can charge 24 INR per transaction (RBI, 2020)

Lack of trust

Among our participants we found a lack of trust in financial institutions deters use of bank accounts to save money. Instead, cash is often either kept at home and managed by an auto rickshaw operator-drivers' spouse (or other female household member), or invested in gold jewellery and ornaments to be pawned in exchange for short-term credit when necessary.

There is also a lack of trust in digital wallet and card payments (operater-driver 2). After experiencing difficulties, participants immediately stopped paying for fuel or other payments using the technologies. They found that seeking advice through the relevant company took up too much of their working time. For most of our participants, cash's material presence signifies an exchange has taken place without the need to check-up on payments, or to lose part of their day's income seeking assistance.

Ola/Uber payments

Digital platform taxi booking companies Ola and Uber have facilitated operator-drivers to use digital wallets, such as Ola Money for use by Ola 'partners', or by Paytm, Phonepe, Google Pay and Bharatpe, for Uber 'partners' (operator-driver 3).

We found that operator-drivers using Ola/Uber platforms prefer the next day payments of Ola compared with the longer weekly payments of Uber. Operator-drivers are sensitive to the speed of digital payments because they are used to making daily payments using cash. The significance of cash to operator-drivers is so acute in some cases that it impacts their willingness to work with aggregator companies.

Household budgeting

Managing household expenses is usually undertaken by an operator-driver's spouse, if married, or, by another female caregiver responsible for the household's domestic needs. However, in India, fewer women use digital payment technologies than men, particularly among low-income communities. Household budget planning and spending is therefore often undertaken using cash. Because getting cash out is inconvenient, drivers are dettered from accepting digital payments.

"Once I went to buy fuel and paid by card. The attendant told me it hadn't worked although it had and made be pay in cash. I didn't have time to call to report it. Now I pay only using cash."

- Auto rickshaw operator-driver 2

"Mostly all the Ola trips are paid online but nowadays I am taking more trips on the meter so I can get more cash. Almost everyone who comes on the meter is ready to pay cash."

- Auto rickshaw operator-driver 3

What is a credit score?

A credit score is a numeric prediction of the likelihood of a loan applicant to repay a loan. They are used to assess borrowers and determine the interest charged to borrowers. Trans Union CIBIL [Credit Information Bureau India Limited] is India's leading credit information and scoring company and is part of the US company Trans Union. Their CIBIL score traces a borrowers' monthly income and compares it against their monthly outgoings. It calculates the monthly repayments a borrower can afford along with a numeric probability of them not repaying.

What data is needed to produce a credit score?

An individual is scored using information about their income, occupation, gender, age, residence, consumption behaviour and loan repayment history. A key part of the method is to score an individual loan applicant against other people who are statistically grouped based on similarity in terms of these factors (income, occupation etc.). As a result, someone may be considered a 'good' or 'bad' borrower based on general patterns of behaviour among a whole community of people.

What opportunities do digital fare payment systems offer auto rickshaw operator-drivers?

The government and global development institutions promote financial technologies, such as e-wallets, for improving people's access to credit. By increasing digital transactions, it is anticipated that advanced data can be gathered from more diverse borrowers who previously have been invisible, or deemed too risky, to gain access to mainstream finance institutions, such as banks and non-banking finance companies (NBFCs).

Operator-drivers earn a low-income, yet have many financial responsibilities in their households and communities. Operator-drivers need flexibility from lenders to allow them to exit early from a hire-purchase loan contract to access money for healthcare, education fees, and family weddings, for example. They may also need flexibility in delaying a monthly instalment. However, banks are not willing to lend to operator-drivers with such risks present, particularly if the risks cannot be calculated on the basis of past spending data, to determine the costs associated with loans.

Spending data can contribute to borrowers' credit scores and should, in theory, reduce the cost of higher-risk loans from banks and other lending companies. This is referred to as positive credit data, which demonstrates consistent income and loan repayments made on time. The difficulties operator-drivers have in accepting digital payments, however, means that a vast proportion are not yet contributing to the flow of positive data required for credit scoring and their access to mainstream and lower-cost finance is limited.

When operator-drivers approach a bank for a loan to purchase an auto-rickshaw vehicle, they likely cannot produce a credit score that will demonstrate their ability to repay the loan on time. They may not be able to evidence their income because some, or all, of it is paid in cash. Their consumption and spending data may not contribute to a high credit score since it may be either too low, or unrecorded.

Are there limitations or risks to accepting digital payment systems to generate data for credit scores?

Enabling more stringent enforcement of fixed fares could reduce operator-drivers incomes.

Flexible fare pricing strategies assist drivers to manage their economically precarious positions created by high-cost, high-risk vehicle finance, low profit margins, increasing living costs and increasing competition from new transport services. Flexible pricing strategies are used similary by Ola and Uber during peak travel times.

Digitalising fares could enable monitoring and enforcement of fixed fares. In turn, the day-to-day profits of operator-drivers would be reduced to the amount that can be earnt working to the fixed fare rate. **In this case, fare legislation will need to enable a liveable wage that considers the full costs of procuring finance for vehicles, changes to living expenses, fuel costs and other expenses.**

Operator-drivers may continue to experience exclusions accessing low-cost finance.

Credit score methods determine an individual's likelihood to repay a loan by assessing their data and by comparing their credit histories to others with similar characteristics. Borrowers can be assessed based on general patterns of behaviour among borrowers of the same occupation. Operator-drivers' behaviour patterns are impacted by limited access to quality education, public services and precarious, low-waged employment. Many operator-drivers need to exit loans when money is required urgently. This would negatively effect credit scores for all operator-drivers, limiting their access to finance provided by banks.

Therefore, credit scores will be most relevant for generating access to finance sold by non-banking finance companies (NBFCs), such as Shriram Transport Finance and Bajaj Finance. As NBFCs collect additional data that exposes operator drivers' economic vulnerability, the costs of borrowing will remain high - considerably more so than those offered by banks (Box 1).

NBFCs offer contract conditions similar to those of moneylenders although they do offer slightly lower interest fees. Equated monthly instalment repayments (EMIs) on NBFC loans are reported higher than those of traditional moneylenders, which are repaid over a longer schedule (Box 1). Both lenders seize vehicle assets – essential to operator-drivers' income - after borrowers delay EMIs by 90 days.

We demonstrate that whilst credit scores and financial technologies offer benefits to the private finance companies, they have not significantly improved the precariousness of lending for operator-drivers.

Box 1: Example EMIs and interest fees charged by various lenders on a vehicle loan of 150,000 INR (purchased new)

Lender	Interest fee (p.a.)	Example EMIs
Banks	8 - 11.5%	3500 INR x 60 months
NBFCs	15.6 - 16.8%	7100 INR x 30 months
Money-lenders	18 %	6416 INR x 36 months

How can workers' unions and civil society groups help drivers to benefit from changes in fare payment technologies and credit scoring?

Developing skills and knowledge for drivers

Creating positive credit score data

Most drivers are unaware of credit scores. Training can be given on the benefits of creating credit score data for accessing lower-cost loans and getting cheaper interest rates on loans, which will reduce dependency exploitative lenders. Operator-drivers should also be aware that generating more financial data can equally demonstrate negative data to lenders increasing the cost of loans. Understanding how to minimise these instances will be key.

Drivers can be encouraged to

- **Save income for monthly payments in a bank account instead of at home**
- **Utilise digital fare payments to demonstrate their income**
- **Pay utility bills online**
- **Use Aadhaar and PAN cards to create positive data for credit scores**
- **Driver-operators state they earn below the current tax slab of 5 lakh. However, filing tax returns produces data used to evidence their income as part of a credit score. Filing tax returns would also enable drivers to claim tax deducted at source (TDS) from commissions paid to drivers by aggregator companies (Ola/Uber), if applicable. Cabdost is an organisation assisting taxi drivers to do this.**

Using digital payment devices (e-wallets), bank accounts and ATMs

More vulnerable operator-drivers who may have limited technological or language abilities, or disabilities, find it harder to adapt to new technologies and will require support and training in how to use new payment devices, bank accounts, online e-wallets and accounts, smart phones, digital platforms (Ola/Uber) and ATMs. Operator-drivers often budget their household spending with a spouse or other female relative. However, less women are using digital payment devices and online services than men.

Ensuring women have access to training on financial technologies, particularly transferring payments, would support their involvement in household budgeting and bill paying. This could reduce the frequency of cash withdrawals from ATMs avoiding inconvenience and fees.

Strengthening worker's unions and advocacy work

Most drivers stated they are not motivated to join a union or spend their time attending meetings. Unions will need to demonstrate to drivers they are valuable organisations that can effectively improve drivers' work and financial conditions. Unions can target a wider audience of operator-drivers rather than working only with their paid members in order to more effectively raise awareness of the opportunities and limitations of digital financial technologies and credit scores. This is important because drivers' credit assessments can be carried out on the basis of financial risk among the whole sector.

Increasing attendance at training events

Drivers often do not attend training courses because they cannot afford to lose a day's work. Unions could lobby traffic police and local government actors to facilitate training by offering a cash incentive to drivers to attend training using the fines and taxes collected from drivers, particularly since traffic fines have increased recently.

Supporting drivers to develop positive data for credit scores

Housing support

Support can be given to drivers facing landlord and housing problems, such as advice and legal support, raising awareness of how to make complaints against landlords, and lobbying for improved regulations on renting terms and housing conditions. Support should aim to improve drivers' wellbeing and reduce their housing movements which makes it difficult to trace positive data that might contribute to their credit scoring.

Financial support

Co-operative saving groups providing loans are useful to protect drivers facing short term financial crises, however, they rarely give loans for settlement of traffic police fines. When unsettled fines are allowed to accumulate they become unmanageable to drivers. This can result in their vehicles' being seized and future defaults on vehicle loan repayments. Offering loans through co-operative saving groups could enable drivers in these circumstances to avoid exploitative short-term high-cost 'hand-loans' and facilitate drivers to continue repaying their vehicle loan repayments on time. Drivers will then be supported to maintain a viable credit score by producing positive data used to access future lower cost loans. This policy is recommended in combination with drivers continuing to receive training on the importance of adhering to traffic laws and working regulations.

Lobbying on behalf of drivers

More affordable loans with fewer risks

NBFC lenders need regulating to improve the costs and terms and conditions for operator-drivers. For example, operator-drivers will need more flexibility from lenders to delay a monthly instalment for a period of time without it negatively affecting their credit score. In this way opportunities for the lending market to utilise credit scores to exploit operator-drivers by increasing the price of borrowing based on observed calculations of their financial risk would be minimised.

Convenient ways to access cash

Driver unions could advocate for the state, financial institutions and banks to increase the number of ATMs and cashback facilities offering free withdrawals to ensure access to cash is available to those who need it the most. State institutions can be lobbied to remove, or reduce, ATM withdrawal fees, particularly for those earning below the 5 lakh tax slab and seek alternative strategies to finance the provision of ATMs and other cash withdrawals.

Changes to RTO permit registration, transfer and renewal processes

Processes in accessing permits and drivers' licences can become more convenient, transparent and accountable to reduce dependency on brokers and moneylenders. Fast services available in-person at Regional Transport Offices (RTOs) and online, in appropriate local languages, are required to enable operator-drivers to begin their loan repayments on time without breaking traffic laws. This can facilitate operator-drivers to produce positive credit data and maintain a higher credit score.

Fairer working conditions with digital platform aggregator companies

Using new technologies needs to occur in line with increasing agency for drivers to make a liveable wage and to gain fairer working conditions whilst working with platform companies matching drivers with passengers (Ola/Uber).

Drivers' unions can lobby for

Reduction on the maximum commission that can be charged to operator-drivers by companies for matching a driver with a passenger.

Faster digital fare payments to operator-drivers.

Operator-drivers to receive a share of the service fees charged to passengers by platform companies as opposed to topping up their salary through temporary cash incentives offered by the companies that can later be changed, reduced or removed.

Convenient, transparent and fair methods to resolve issues relating to poor trip ratings and customer complaints. Remove the need for time-poor operator-drivers to visit an office to appeal against temporary/ permanent, contract suspension/termination.

Ensuring a fair and livebale income can be attained legally

Drivers reported that increasing the fixed fare rate risks losing passengers. Legalising flexible fares could overcome this issue. Demand-based pricing would account for drivers' costs of time and fuel lost to traffic congestion. Flexible fares calculated based on trip destinations outside of central areas could assist drivers' against the costs of returning to a stand or urban centre empty. Regulating minimum fares offered by competitive services will avoid unnecessary loss of income for auto rickshaw drivers.

Changes to how drivers receive information about their traffic penalty fines

Drivers may not be aware they can access information about their traffic penalities online, or may find it difficult to access the information. Interactive voice response systems (IVRS) are gaining popularity for delivering government information and services. The traffic police could set up IVRS for operator-drivers to easily access information in multiple-languages about their penalties without smart phones. Drivers could opt into an SMS/voice system warning of escalating penalities. Drivers could be given the option to pay fines in manageable instalments. Discounts could be given against fines paid early to help prevent the accumulation of unmanageable fines. These policies will support operator-drivers to manage their finances and repay monthly loan instalments on time in order to avoid damaging their credit scores.

Further resources

The International Transport Workers' Fedearation (www.itfglobal.org)

2019 'Organising Precarious Workers' **https://www.itfglobal.org/en/training-education/organising-precarious-workers**

2019 – 'BRT a trade union negotiating guide'- an example of how unions can lobby for the needs of transport workers and help them to adapt as new services begin to impact them. **https://www.itfglobal.org/en/reports-publications/bus-rapid-transit-brt-and-formalisation-informal-public-transport-trade-union**

2010 – 'Making Unions Stronger Pack' - a guide to involving female workers' in unions **https://www.itfglobal.org/en/training-education/making-unions-stronger-pack-2010**

The Indian Federation of App-Based Transport Workers (on Facebook)

2019 'Locking Down the Impact of COVID-19: Appraising State and Private Measures for App-based Transport and Delivery Workers' Areas for advocacy include: daily payments to workers, reduced commissions charged to workers by companies, polcies to assist drivers manage EMI payments during the pandemic. Online at: **https://drive.google.com/file/d/1vO-j8uiulEM4CCQSMgOYtZ4pl202wMQf/view**

Cabdost (www.cabdost.com) - Assisting taxi drivers on finance and tax planning.

Center for Financial Inclusion (www.centerforfinancialinclusion.org) – an organisation undertaking research to empower those excluded from formal financial institutions.

The Alliance For Financial Inclusion (www.afi-global.org) – financial inclusion and regulatory and policy guidance.

About the Transport Studies Unit (TSU)

The TSU has been the centre of transport research excellence within the University of Oxford since 1973. The TSU hopes to inspire and inform change towards a more sustainable, just and accessible transport. Based within the world-leading School of Geography and the Environment at the University of Oxford, the TSU approaches global transport challenges from social science and holistic perspectives. Its work is organized in four broad themes: energy, climate and environment; politics, power and governance; everyday life and justice; and health and wellbeing. The TSU undertakes a range of other outreach activities targeted at local, national and international policy-makers, firms and corporations, as well as NGOs and other third sector organisations.)

TSU TRANSPORT STUDIES UNIT

UNIVERSITY OF OXFORD

Further reading

KOAN Advisory Group, Delhi. 2019. Growth Through Digitisation: Recommendations for Strengthening India's MSMEs. Available online at: **https://www.koanadvisory.com/wp-content/uploads/2019/12/Growth-Through-Digitisation_Updated_For-Web.pdf**

World Bank, 2014. *Financial Inclusion*. Available online at: **http://documents1.worldbank.org/curated/en/225251468330270218/pdf/Global-financial-development-report-2014-financial-inclusion.pdf**

International Finance Corporation, 2018. *Financial Inclusion in the Digital Age*. Available online at: **https://www.ifc.org/wps/wcm/connect/0d9cffc8-a295-4e05-bf33-dca8ffa5abdf/Financial+Inclusion+in+the+Digital+Age.pdf?MOD=AJPERES&CVID=m9QAISc**

International Labour Organisation, 2019. Small matters. Available online at: **https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_723282.pdf**

Fairwork, 2020. *Fairwork India Ratings 2020: Labour Standards in the Platform Economy*. Available online at: **https://fair.work/wp-content/uploads/sites/131/2020/12/Fairwork_India_2020_report.pdf**

This report is based on research publications submitted to journals for peer review.

Copies of academic outputs relating to this research can be obtained by emailing **tsudirector@TSU.ox.ac.uk**

About us

The PEAK Urban programme aims to aid decision-making on urban futures by:

1. Generating new research grounded in the logic of urban complexity;

2. Fostering the next generation of leaders that draw on different perspectives and backgrounds to address the greatest urban challenges of the 21st century;

3. Growing the capacity of cities to understand and plan their own futures;

In PEAK Urban, cities are recognized as complex, evolving systems that are characterised by their propensity for innovation and change. Big data and mathematical models will be combined with insights from the social sciences and humanities to analyze three key arenas of metropolitan intervention: city morphologies (built forms and infrastructures) & resilience; city flux (mobility and dynamics) and technological change; as well as health and wellbeing.

Contact

Dr Lucy Baker, research lead
lucy.baker@ouce.ok.ac.uk

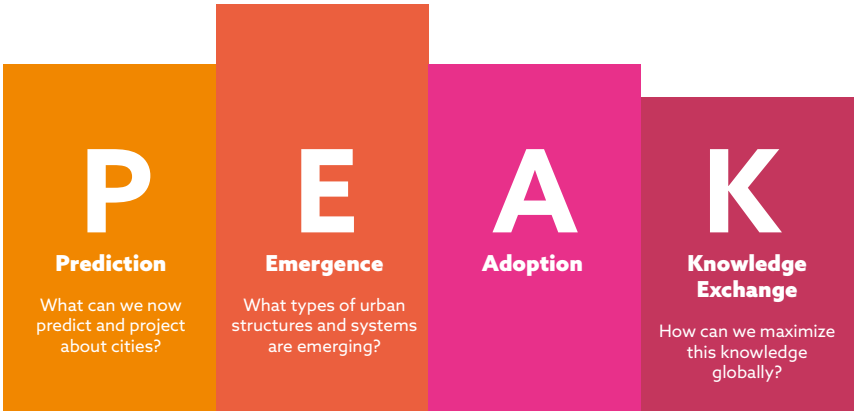
TSU, University of Oxford
enquiries@tsu.ox.ac.uk
www.tsu.ox.ac.uk

PEAK Urban is managed by the Centre on Migration, Policy and Society (COMPAS)

School of Anthropology and Museum Ethnography,
University of Oxford,
8 Banbury Road,
Oxford, OX2 6QS

+44 (0) 1865 274706
@PEAK_Urban
www.peak-urban.org

Our framework



The PEAK Urban programme uses a framework with four inter-related components to guide its work.

First, the sciences of **Prediction** are employed to understand how cities evolve using data from often unconventional sources.

Second, **Emergence** captures the essence of the outcome from the confluence of dynamics, peoples, interests, and tools that characterize cities, which lead to change.

Third, **Adoption** signals to the choices made by states, citizens and companies, given the specificities of their places, its resources and the interplay of urban dynamics resulting in changing local power and influence dynamics.

Finally, the **Knowledge** component accounts for the way in which knowledge is exchanged or shared and how it shapes the future of the city.

PEAK Urban is funded by UK Research and Innovation as part of the Global Challenges Research Fund.

UK Research and Innovation
GCRF Global Challenges Research Fund

PEAK Urban is a partnership between:

University of Oxford
Universidad EAFIT
iihs Indian Institute for Human Settlements