



Inclusive Cashless  
Payment Partnership

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# LIMITLESS OPPORTUNITIES, LIMITING CONSTRAINTS

LIVELIHOODS, MONEY MANAGEMENT  
PATTERNS AND DIGITAL READINESS  
OF LOW INCOME HOUSEHOLDS IN AN  
URBAN SLUM AREA

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## About CATALYST

CATALYST is a user-centric 'digital financial inclusion innovation platform' for the underserved last mile. The initiative is funded by the United States Agency for International Development (USAID) under the mSTAR Program, through funding provided to FHI 360. Housed within the Institute for Financial Management and Research, Leveraging Evidence for Access and Development (IFMR LEAD), the initiative aims to expand digital payments and financial inclusion in India.

CATALYST identifies, develops and validates solution frameworks and business models in collaboration with facilitating government agencies and participating industry solution providers to responsibly transition small business ecosystems (i.e., merchants, consumers, suppliers) from an inefficient cash economy to digital payment platforms, and further onto broader digital finance solutions. CATALYST has also launched a new business incubator, 'Fintech for the Last Mile,' to promote entrepreneurs focused on developing innovative digital finance solutions for traditionally underserved segments.

## Research Team

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# Executive Summary

This study was conducted by IFMR LEAD for CATALYST – an initiative funded by USAID under the mSTAR Program, through funding provided to FHI 360. The initiative aims to expand digital payments and financial inclusion in India, especially for small merchants and low-income consumers. The aim of the study was to inform planning, designing and implementation of initiatives for usage of digital payment mechanisms for household payment activities in poor urban slum areas. The urban poor have received less attention than their rural counterparts, despite being a growing segment of the population; they are often more financially excluded. Hence, understanding how digital technology can be an enabler for the urban poor and can facilitate their inclusion is warranted. The primary data collection included a survey of 442 randomly selected low-income households in Bhatta Basti, a slum area in Jaipur, Rajasthan. The intent of the survey was to gather information regarding household income patterns, expenditure profiles, saving and borrowing behavior and their basic financial know-how. The qualitative component involved interviews with community leaders, enablers and civil agencies to identify key challenges faced by low-income households while adopting digital payment solutions. The research efforts and on-field survey efforts were strongly supported by SEWA, a well-known federation of women-led institutions providing economic and social support to women in the informal sector.

As anticipated, the study indicates that low-income households rely heavily on cash-based payments. While recent changes in financial policies have raised awareness regarding digital payment systems, and the willingness to learn seems present, adoption and usage remain critically low among low-income households. The community still relies on friends, family and local money lenders for financial advice and borrowing. Savings continue in informal avenues such as keeping money in jars at home, tin cans, cloth potlis (bags), etc. Continuing dependence on informal finance is a result of both supply side and demand side factors. The lack of necessary infrastructure facilities such as internet services, network availability, smartphones, Point of Sale (PoS)/ mobile PoS (mPoS) machines, despite being prominent in the surrounding urban area, limit the adoption of digital payment solutions by households in urban slums. Travel to and transactions at banks are time consuming, cannot take place at a convenient time, and offer a poor experience for customers. The results of the study indicate a critical requirement for close engagement with the community, including persistent handholding during the initiation, onboarding and usage phases of formal, digital financial services. The findings can also provide insights on designing tailored digital customer journeys, with various phases to adoption and usage. This requires the creation of an enabling ecosystem where merchants, government agencies and local nongovernmental organizations (NGOs) coordinate to address supply- and demand-side barriers for low-income urban households.





# Findings and Recommendations

## 1. A vulnerable segment:

The urban ultra-poor, a large majority of whom are migrants in search of economic opportunities, have highly volatile incomes and unpredictable cash flows. Low education levels and skills translate into low wages and an engagement in industries such as construction that employ people on a daily basis. Most people continue to get paid in cash, and do not deposit this in bank accounts, even when they possess accounts because immediate access to the funds is important to balance their unpredictable lives.

- **Unpredictable wages:** A high proportion of earning members of the families (46 percent) work as wage laborers in construction works, bangle making, etc. These are all based on informal contracts and often paid on a daily basis, in cash. Work itself is unpredictable and sometimes varies by season. Most families do not maintain accounts and income is self-reported and hard to verify.
- **Low income generation:** The average weekly income is INR 1,800 per earning household member between the ages of 18 and 60 years. Furthermore, one-fourth of the respondents reported earning less than INR 1,000 per week. This indicates that income levels remain critically low within the urban slums, resulting in a hand-to-mouth existence in several cases.
- **Similar employment choices:** Most migrants into the city depend on social connections and relatives to find employment. As a result, most people in the community are engaged in similar professions. This high dependence on similar professions results in families and social networks being vulnerable to events and economic downturns.
- **Limited information:** About 48 percent of respondents reported relying on their social circle while making critical financial decisions on investments, saving and expenditure compared to only 24 percent relying on formal sources such as banks and other service providers.

*Recommendations:* The highly vulnerable nature of this customer segment makes it important to create avenues to build resilience, and the implications for various groups of stakeholders are listed below:

*Financial service providers* have the opportunity to develop products with flexibility to address the volatile nature of this customer segment's incomes. This could mean flexible savings with high liquidity features or insurance with flexible premium payment, to protect against external shocks and loans with flexible repayment at affordable rates. Receiving wages digitally can provide the necessary footprint to underwrite these loans, allowing for high quality origination, while incentivizing uptake of digital services. Repayment of loans and payment of insurance premia could also be done digitally. Digital inclusion of this customer base would also allow financial service providers to provide high quality advice, ensuring that the ups and downs of their lives are actually accounted for and the advice provided is suitable.

*Community mobilizers and educators* can build capability in this customer segment, providing information when required and dispelling myths. Community mobilizers can especially play a role in ensuring that grievance redressal is speedy and efficient, thereby helping build trust in formal financial services. Acting as enablers, community mobilizers can also play a role in linking the financial products and services to real goals in people's lives and helping these come to life by animating them in education sessions. Organizations working at the grassroots level can be encouraged to tie in their development interventions with a digital financial inclusion agenda to ensure holistic livelihood improvement.

*Policy makers* can focus on improving livelihood opportunities for low-income households through inclusive policies and schemes for ensuring their education and employment. Awareness campaigns aiming at holistic development of livelihoods can also have long-term impact on positively influencing the community's choices. Furthermore, regulators can ensure poor urban households are financially included – both digitally and otherwise – by encouraging financial service providers to provide suitable services/products for the community.

## 2. Existence in a cash-based ecosystem:

A deep dive into the lives of the urban poor reveals a high dependence on a cash-based ecosystem, with limited access to digital means to access financial services or make payments in their neighborhood. Most urban poor lead hyperlocal lives which means they live and work in a limited radius. The high dependence on cash occurs due to a number of reasons, beginning with poor connectivity issues, a lack of confidence in technology and fear of failure.

- **Income inflow:** Wage payments were made in cash, with only a handful of people mentioning income payments through digital or formal methods.
- **Cash-based savings:** Only 39 percent of households reported having any savings, with a high propensity to saving in cash stashed away in boxes, jars, etc., at home, even among those who had completed their education till class 10 or more and had a personal weekly income of more than INR 3,000.
- **Perceptions:** The urban poor chose to hoard extra cash as their safest and most efficient option due to a desire to keep savings visible to ensure safety and easy access, even in cases where sufficient funds were available for safe keeping and investment.
- **Anchor merchants:** Households preferred to make cash payments, both for regular and ad hoc payments. This could be an effect of households having fragmented merchant payments and not depending on anchor merchants, i.e., merchants on whom the households rely for regular purchases.

*Recommendations:* The high dependence on cash stems from a fear of using technology, the need to keep cash in sight, and limited entry points to engage with digital financial services.

*Regulators and policy makers* can incentivize merchants and employers to accept payments and disburse salaries/wages digitally. Simultaneously, rigorous awareness generation activities need to be introduced to instill trust in using digital finance.

*Enablers* can assist regulators as well as financial service providers by educating low-income households on the benefits of adopting digital financial solutions. Furthermore, these awareness generation efforts can lead to also help inform future regulatory strategy and development of better suited financial services.

*Financial service providers* can incentivize customers to use digital payments so they can provide affordable products that match the rhythm of the customers' lives. This could range from emergency loans to affordable credit at flexible terms. Enablers and

financial service providers have to work together to build awareness about credit bureaus and the need to repay these loans responsibly.

## 3. Technical barriers:

External infrastructure facilities such as internet access, network issues, access to devices such as smart phones, PoS and MPoS machines and digital money as well as merchant preference for cash payments influence payments behavior of ultra-poor urban households.

- **Access to infrastructure:** Higher income households with older and more highly educated men and women are significantly more likely to have an additional mobile phone and a phone with internet.
- **Information and requirement mismatch:** Awareness about digital payment systems such as digital wallets and Unified Payments Interface (UPI) payments (that require smartphones and internet facilities) is higher (among the group surveyed) than about Unstructured Supplementary Service Data (USSD) banking (that require feature phones), indicating a mismatch between knowledge, requirements and available resources.

*Recommendations: Regulators and policy makers* can ensure provision of basic infrastructure such as continuous internet facilities at community spots, activate merchant incentivization to promote acceptance of digital payments, and create awareness regarding non-smartphone based digital payment methods. Specifically, **local government** can ensure that access to the internet is available at a community centers within urban slums in collaboration with the local community mobilizers. This can boost adoption of digital payment methods considerably.

*Financial service providers* have to consider low literacy levels and orally literate populations and build in features that allow the urban poor to access the application without fear of failing. This requires an initial investment in user experience and testing, which ultimately adds value to customer service and financial services provision.

This indicates an opportunity for service providers as well as regulators to develop and introduce digital financial services that are easily useable by poor urban households. Given low financial know-how and language barriers, multi-language digital financial services can be introduced. Since the urban poor, especially women, tend to own and use basic feature phones, digital financial service providers can capitalize on the opportunity to introduce seamless payment facilities adaptable to non-smartphone devices and by generating awareness regarding their safety and security.



## 1. Motivation

Digitization of the economy has been seen by many, including the Government of India, as a path to accelerating financial inclusion and advancing the wellbeing of citizens, in particular, low-income households. Among the major assumptions underlying this expectation is the belief that the digitization of financial transactions will increase financial transparency, allowing financial service providers to offer products that match customer needs, increase accountability of both financial service providers (underwriting barriers can no longer be an excuse) and customers (willful default reduces bringing down of lending risks for low-income customers). It will also allow policy makers to quickly scale up service delivery of various welfare measures with reduced leakage.

Financial transactions are the driving force of any growing economy – they enable individuals and households, however small or big, to buy goods and services or borrow in times of need or simply save for a rainy day (Merton, 1990). However, when most of these transactions are in the form of cash and conducted informally, individuals can lose out on the most essential savings, credit and other financial products that a more formal financial ecosystem has to offer (Gayathri & Balakrishnan, 2011), often leading them to resort to strong ties in their immediate social networks.

While these ties are predominant among poor rural communities, the absence of an established social network leaves the urban poor without the

support system required to overcome financial issues (Chakrabarty & Vij, 2013). In such situations, formal financial systems need to build new networks to reach out to the urban poor. Financial service providers rely on formal documents to engage with the urban poor, many of whom lack such formal proof due to recent migration. With continuous migration and lack of a stable address, financial service providers see a risk in confidently pursuing this segment of customers, and cite the high cost of doing so as a barrier to access. In this situation, digitization of financial activity offers a potential alternative. The income and earning capacity of every individual of a household contributes to the households' acceptance and adoption levels of digital payment systems (He & Mykytyn, 2009). It is important to emphasize here that, while there may be a positive relationship between easy-to-use digital financial services, the implied positive relationship is stronger for high- and middle-income users of digital financial services while the relationship may be non-linear or negative for low-income and poor users of digital financial services. This could be because indigenous and poor communities, despite persuasion, refuse to use digital financial services due to:

- i. Limited financial illiteracy;
- ii. Lack of awareness and knowledge required for seamless adoption and usage;
- iii. Lack of necessary resources, infrastructure and exposure;
- iv. Fear and perceived uncertainty regarding technological advancements and innovation; and
- v. Unaffordable costs of adopting and using digital financial services



Inability of poor households to access and utilize digital payment mechanisms results in a 'cash-digital divide' (Radcliffe, 2012) restricting their access to formal financial services, making them dependent on informal financial sources and institution, thereby manifesting a cycle of financial exclusion, illiteracy and unavailability.

The potential of fairly charged and smoothly discharged digital finance is estimated to expand beyond financial inclusion of the urban poor (Mujeri, 2015). Apart from raising their access to formal credit, insurance, savings and education, it will result in job creation, entrepreneurial growth and innovation. Knowledge regarding digital payment solutions, access to the necessary infrastructure and willingness to let go of 'visible' cash together influence their ability to go 'cashless' and embrace digital finance and digital payment systems.

Given the hand-to-mouth subsistence of households within these communities, their scope for inclusion into the digital finance landscape is influenced by their financial habits and preferences, i.e., their money management practices. Income generation patterns, expenditure patterns, saving and borrowing behavior as well as overall financial literacy and digital readiness constitute the money management practices of poor urban Indian communities.

Not all the urban poor necessarily live in urban slums (economic ghettos) but can also be found spread thin across Indian cities (Rupambara, 2007). The urban poor demographic is characterized by two sub-groups: (i) a floating migrant population; and (ii) static population that shifts from one low skill job to another. While both these groups display subsistence income levels characterized by low savings and high propensity for cash holding, the migrant population additionally displays remittance requirements.

One of the key reasons cited against financial inclusion in rural India is the absence of financial services – both traditional and digital. This is something that urban areas do not experience with high Automated Teller Machine (ATM) coverage and presence of multiple digital finance solution providers. A study conducted in the slums in Mumbai (Bhatia & Chatterjee, 2010) found that, despite the availability of banking services within or near urban slums, almost two-thirds of the households did not have a bank account. While access numbers might have changed with the recent Pradhan Mantri Jan Dhan Yojana (PMJDY) thrust by the government, usage levels continue to be low (Findex 2017).

Against this background, this study aims to understand the money management practices of households in poor urban communities. The goal is to identify key barriers that impact adoption and usage of formal financial services, adoption of digital payments and barriers therein, and recommendations that can help overcome these barriers, ensuring we don't leave behind an important and growing segment of the urban population.





## 2. A Sketch of Bhatta Basti

Bhatta Basti is an ultra-poor urban locality in the outskirts of the city of Jaipur. It is a migrant settlement with an estimated 10,000 households and with a population of over 45,000 persons largely consisting of low-income Muslim households.

One of the striking features of the area is the lack of basic infrastructure, despite being within the boundaries of the main city. Houses and roads are, in general, small and narrow, densely populated and unkempt. There is little attention to public sanitation, drains overflow, and roads are broken, potholed or not tarred. Cattle, dogs, goats, pigs mill around, children run and play barefoot on the roads (there are no playing areas/maidans); at some corners of makeshift roads, refuse and garbage spill over.

There are four roads leading to each other as a large square main road in Bhatta Basti. These roads have small fixed shops (shop rent from INR 1,000 to 5,000 per month). Abutting these shops are narrow dimly lit stairways that lead up to small houses on the first floor, where households reside, either as owners or on rent. The shops on the main roads have some common characteristics; they represent the lives of the customers that live in the neighborhood – kirana (small grocery store), electrical, halwai/mithaiwala (sweet vendors/shops), snack, snack/cool drink, mobile repair, butcher and utensil shops are visible. The shops in the inner lanes are cubbyholes mostly dealing with

bangle making and decoration raw materials, or stove repair and tailor shops. Large textile, saree shops or consumer goods merchants ubiquitous in other market clusters around Jaipur are missing.



Fig 1: Earning members vs. dependent members per low-income household

A typical household in Bhatta Basti has five or six members, of which only two members contribute to the household income (Figure 1). The remaining are dependent members comprising minors, senior citizens or ill persons. Primary decision-making power for the entire household – financial and otherwise – lies with the ‘head’ of the household, one who is generally but not always, the primary breadwinner. In most cases, the head of the household is a man.

Education qualifications of heads of households could not be determined as over a quarter of them preferred not to disclose the level of education obtained by them. However, among those who did reveal the information, it was found that three out of every five had only studied till class V or less.

A majority of the earning members in the Bhatta Basti community are employed as wage laborers, in industries such as construction, bangle making, etc., which adds to their economic vulnerability due to volatile, seasonal and risk-prone income inflows (Figure 2).

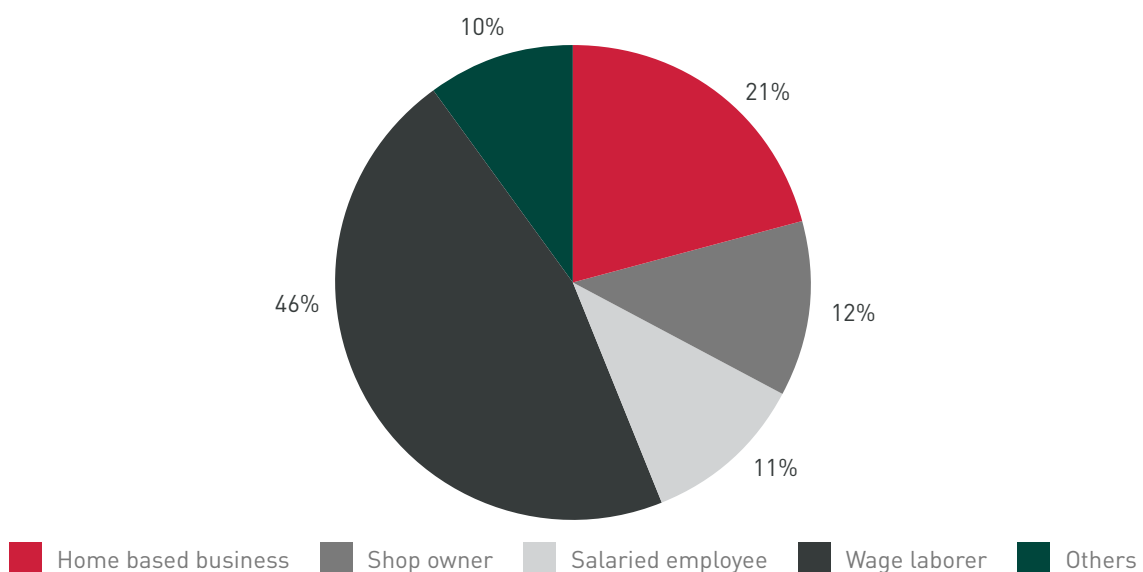


Fig 2: Primary occupation of low-income communities

## 3. Money Management Practices of Poor Households

Mas (2015) points out in his paper that for the poor, whether urban or rural, there are two broad financial needs. The first is day-to-day money management, which manipulates small and irregular incomes to make sure there is food on the table every day, meet unexpected but small expenses that might arise, etc. The second is putting together large sums of money to deal with major life cycle events, i.e., death, marriage, etc. For the urban poor, who face both volatile income and an absence of strong social networks, financial stability is key. So how do they cope with their circumstances with these challenging situations?

Poor urban communities such as those found in Bhatta Basti are constantly looking for solutions to overcome the volatility in their income. While they look for opportunities to earn extra income, they are also on the lookout for avenues to spend as little and save as much as possible. As well, they rely extensively on rules of thumb and habitual practices, so they do not have to revisit similar money questions again and again. This also translates into poor receptiveness to any new habit like using digital modes to save, since it means changing the mental model and heuristics that have been established.

Given their financial constraints, the money management practices of the urban poor often boil down to them scrambling for money from as many sources as possible, mopping up any surplus money they earn before it is lost due to financial shocks, and hardening money by making short-term mental budgeting resolutions.

Findings from the current study, including observations as well as data collected from the field in Bhatta Basti, closely corroborate the ideas put forward by Mas in his paper. Together they provide an insight into the decision-making habits of the poor urban communities and help identify patterns in their money management practices – an important first step in mapping digital financial solutions for this low income population.

### 3.1 Income Patterns

Poor urban households, such as those in Bhatta Basti, often survive at a hand-to-mouth level of subsistence. With few earning members per household, who have a low earning capacity caused by lack of skills, poor opportunities, etc., income patterns of such households remain irregular and are often at a bare minimum.

The average weekly personal income of heads of households in Bhatta Basti is between INR 1,750 and 1,800 and income (wage/salary) payments are made largely in cash. Only 3 percent of the respondents claimed to receive their income through bank account transfers.

Only 10 percent of the primary breadwinners of the households earned more than INR 3,000 per week and one in every four respondents (25 percent) earned less than INR 1,000 per week. Fifty percent claimed that they earned between INR 1,000 and 2,500 per week.

Given the irregular nature and availability of work, low levels of income and large household sizes, it can be inferred that households in Bhatta Basti survived hand-to-mouth in poor living conditions.

### 3.2 Expenditure Profile

Poor households face a much higher risk of unpredictable shocks and hence more expenditure decisions are always a function of as and when income is earned. Furthermore, because the inflow of income is largely irregular in low-income communities such as Bhatta Basti, their expenditure goals remain 'fuzzy' and loosely decided as they are liable to be changed depending on the amount and type of money in hand (CGAP, 2015).

Knight (1921) defined risk to be present when the occurrence of a future event has a measurable probability, while uncertainty is caused when the likelihood of a future event taking place is incalculable. Low-income communities such as those in Bhatta Basti suffer from higher uncertainty as their income remains unpredictable and irregular, thereby also impacting the formation of goals and hardening of money resolutions.



Household expenditure in poor urban households such as those found in Bhatta Basti can be largely classified into two broad categories: recurring expenditure and need-based expenditure (Collins, Morduch, Rutherford, & Ruthven, 2009). The first type of expenditure consists of major household expenses that do not change significantly over time such as expenses on education, healthcare, household utilities and rent. Also, payments for these expenses are made to the same service provider or supplier over a long period of time. For example, payment of school fees, hospital bills, electricity and water bills to the respective government boards, rent to the landlord, etc., are made regularly and to the same person or organization. The second type of expenditure includes that which is incurred based on need or want of the household. This includes expenses on clothes, furniture, utensils, etc.

The community preferred to make cash payments for both types of household expenses. The convenience of making payments in cash is a key factor influencing payment decisions of low-income urban households. Another reason for cash being the most preferred mode of payments is that it is often the only form of payment instrument available to the low-income communities of Bhatta Basti.

Further, it is observed that for need-based expenses (Figure 3), the community did not rely on an anchor merchant, i.e., a single merchant, store or vendor, suggesting a fragmentation of expenditure across multiple merchants.<sup>1</sup> Only for seasonal purchases such as clothes and critical necessities like groceries do low-income communities show some dependence on anchor merchants.

While cash was the most preferred mode of payment for households across the community, sometimes groceries were purchased on running credit, accounts for which were strictly maintained by merchants and swiftly cleared by the households. However, these credit-based purchases of critical necessities such as groceries were made only on occasions when weekly income was extremely low and the households were particularly strapped for cash.

Since a majority of the community relied on wage labor as a source of employment, inflow of income was largely inconsistent across long periods of time. Further, the location or place of work often changed, based on the availability of work. Therefore, the householders often made purchases from shops or stores that lie on the route to or from work and only when they had money to spare.

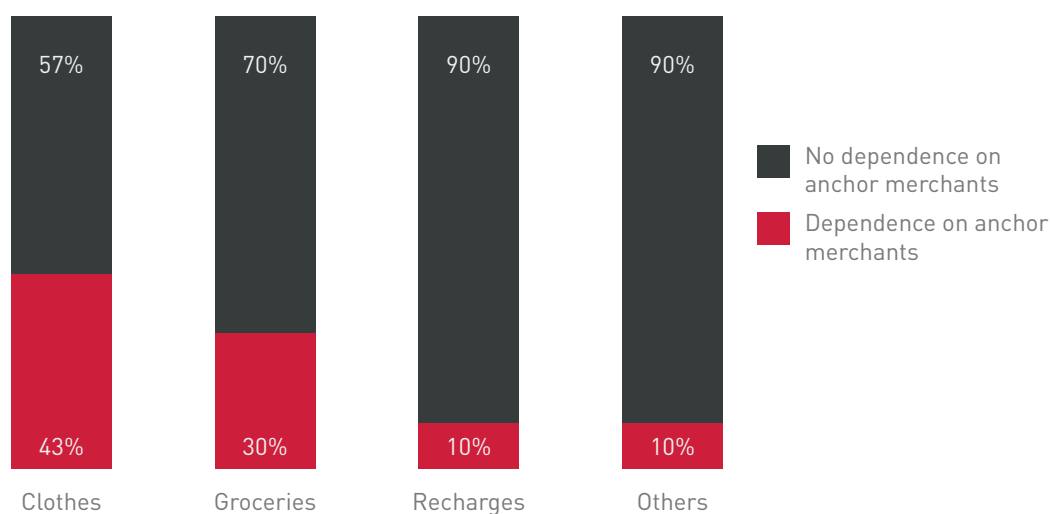


Fig 3: Dependence on anchor merchants

<sup>1</sup>Details regarding the presence of 'Anchor Merchants' were captured for Recurring expenses and not 'Major Household Expenses' due to the nature of expenses.

### 3.3 Saving and Borrowing Behavior

The savings capacity of low-income urban households is determined by a variety of factors: the number of earning members versus dependent members in the household, total household income, regularity of inflow and expenditure patterns of the household, all of which together influence how much money and how frequently a household can save. Further, these factors influence the saving mode preferred (Figure 4) and adopted by a poor urban household. The higher the regularity, the more the household was willing to save in a bank account.

Given that Bhatta Basti consists of large households with few earning members in low income brackets, household savings are mostly small and scarce. The saving activity is identified to be money parked aside for future use such as investment, unforeseen circumstances, etc.

In fact, only 39 percent of the primary breadwinners of the low-income households in Bhatta Basti claimed to have any savings at all. A startling yet consistent observation from the field is the high dependence on home-based savings such as money stashed away in jars and boxes kept at home.

The primary reason why poor urban households prefer to keep money saved at home is because it instills a confidence due to its visibility and it is easily accessible in times of need. Also, women especially believe it is the only mode of savings available to them.

More than one in every two primary breadwinner preferred to keep his/her savings in jars while 34 percent preferred depositing money in bank accounts. Bank accounts are preferred, when used, because they instill a sense of safety and promise a small return in the form of interest.

Other forms of savings preferred by low-income communities include enrolment in community-based saving programs such as self-help groups and purchase of gold. The community is fearful and apprehensive while sharing information regarding income and saving behavior, largely due to fear of fraud. Similar to the saving behavior of low-income households, their borrowing profile depends on the total income generated, regularity of income inflow, size of the households, and expenditure patterns. The borrowing profile of such households also provides an insight into their long- and short-term financial stability and has an impact on their lifestyle choices and expectations.

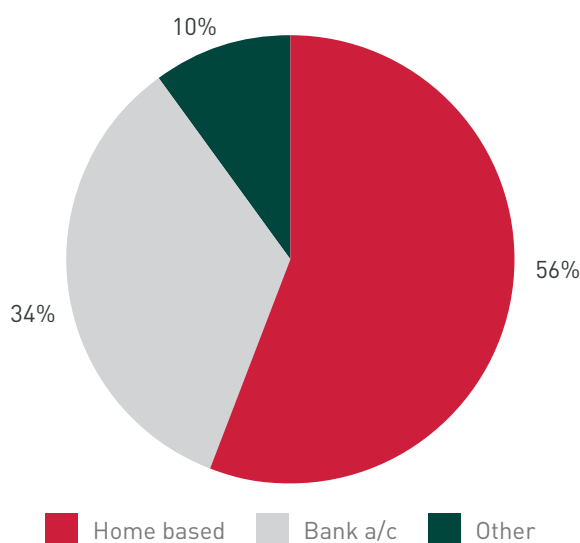


Fig 4: Preferred mode of savings



Formal sources of borrowing such as bank loans and loans from microfinance institutions (MFIs) are the most preferred sources of obtaining credit for planned expenditure (Figure 5). One in every four households surveyed, if given the opportunity, prefers to take loans during times of need from banks.

However, informal sources of borrowing such as local money lenders, colloquially known as 'Byaajkhors' and social circle of family, friends and neighbors are commonly tapped with 36 percent preferring them to meet planned future expenses.

Formal sources of borrowing are preferred by low-income communities such as the one in Bhatta Basti because of the low rate of interest charged, while informal sources are preferred because it helps build social credit for emergency borrowing.

While the borrowing preferences of low-income communities to meet planned expenses lend an insight into their financial capability,

their borrowing preferences to meet sudden unforeseen circumstances provide an insight into their actual perceptions and borrowing inclinations. The household's preparedness for unforeseen financial difficulty is an indicator of its financial capability, and higher the financial capability, higher its ability to withstand financial uncertainties (Gustafsson & Omark, 2015).

Availing credit from informal sources is the first reflex solution to overcome emergencies, according to low-income communities like Bhatta Basti. Twice as many household heads rely on borrowing from informal sources against those who rely on formal sources for sudden emergencies (Figure 6).

This indicates that, during times of sudden financial duress, poor urban communities are more inclined to adopt informal solutions rather than access formal credit, representing an opportunity for financial service providers to design and develop specialized solutions that assist the poor in their times of need.

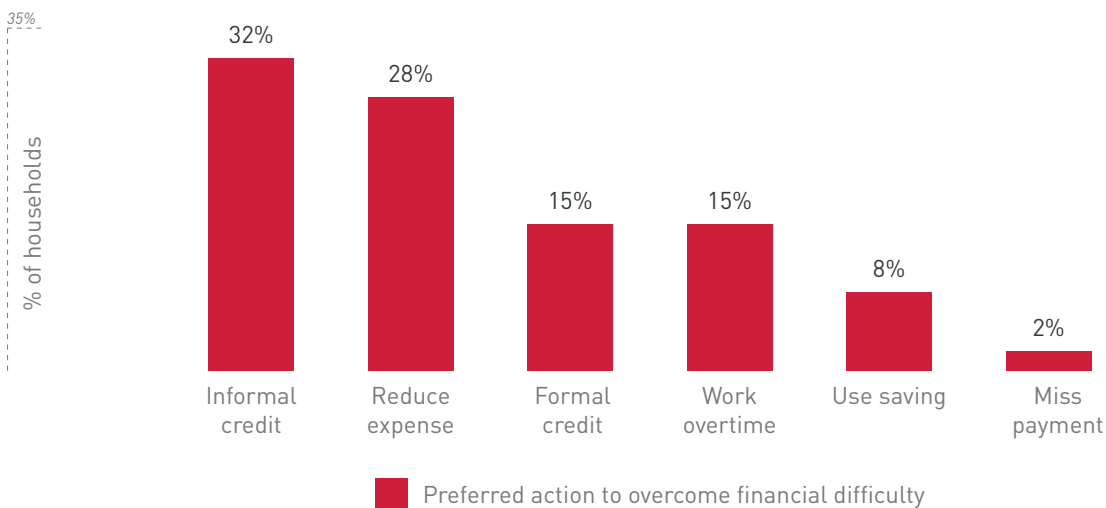


Fig 5: Preferred source of borrowing

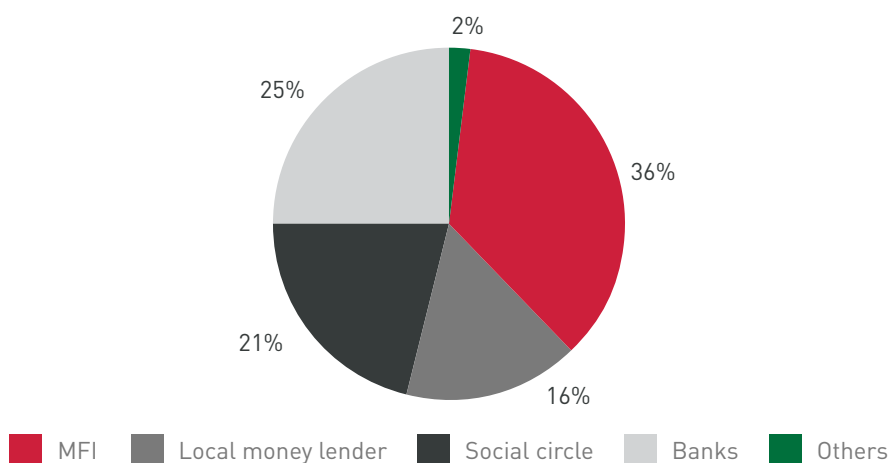


Fig 6: Action to overcome unforeseen financial difficulty

## 4. Financial Literacy and Digital Readiness of Low-income Households

Financial literacy is the ability of urban households to understand how money works, i.e., how to make it, manage it, invest it and save it (Mbazigwe, 2013). The level of awareness and know-how regarding different financial products, their benefits, challenges in obtaining and using them, etc., all constitute financial literacy. Often, poor urban communities prefer to be voluntarily financially excluded as they do not wish to associate with formal financial institutions such as banks due to pre-existing fears or because they lack the knowledge and awareness regarding benefits of financial inclusion and digital financial systems (Ozili, 2018).

Access to formal sources of information regarding financial products and reliance on such sources by a low-income community such as the one in Bhatt Basti is a positive indication of the community’s financial literacy, as it points to high potential to gain correct knowledge and make informed decision (Thorat, 2006). It is also an indication of the availability of a stronger support system which is needed while making financial decisions, especially for poor urban groups.

Almost one in every two household heads, i.e., the primary breadwinner/decision maker, relies on his/her social circle, i.e., family, friends,

neighbors, etc., while making critical financial decisions for the household such as investment, saving and borrowing activities, etc.

This indicates that the confidence in the source of information and comfort level are key deciding factors that determine who the community approaches for assistance regarding financial services. Therefore, trust and experience are key drivers in deciding information sources and financial decisions thereafter.

Only a quarter of them rely on official sources of information, specific to the financial product or activity, such as banks, government, etc. (Figure 7).

Knowledge and use of financial products within the community varied depending on the product itself. Awareness about fixed and recurring deposits, insurance and mortgages is high but usage patterns are low. However, awareness and usage of savings accounts is the highest in the community with every household in Bhatta Basti having at least one savings account in the name of one or more member/s of the household.

Bank account linkages to the Aadhaar card number and phone number of the bank account holder are also high at 89 percent and 72 percent, respectively. Most of the accounts held by the community were inactive<sup>2</sup> and bank usage is extremely minimal with 81 percent having last used their bank account more than a month before the survey was conducted.

A bank account that complies with all mandatory regulatory frameworks and is used regularly can ensure financial stability and provide an identity to urban communities (Han & Melecky, 2013).

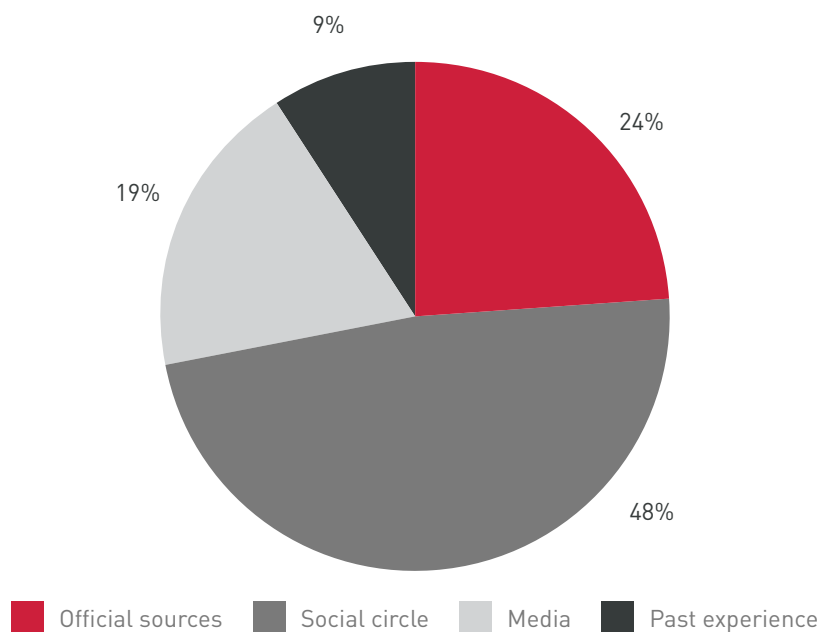


Fig 7: Popular source of financial information

<sup>2</sup>For the purpose of this study, bank accounts were considered ‘active’ if there was at least one inflow or outflow transaction in the 30 days prior to the survey.



The existence of ATMs within the locality populated with low-income households impacts their usage, financial liquidity available with the community and their eventual integration into the formal financial system. Ninety percent of the primary breadwinners and decision makers of low-income households in Bhatta Basti were aware of an ATM in the vicinity of their home and one person in every three had used it at least once in the past.

The digital readiness of urban households is determined by their financial literacy as well as the availability of necessary infrastructure such as continued electricity, access to mobile phones, digital payment facilities such as PoS and mPoS machines. Furthermore, knowledge about challenges and benefits of adopting and using payment methods, etc., also impact their digital readiness.

A negligible fraction (6 percent) of the households surveyed from Bhatta Basti can confidently say they know about digital payments<sup>3</sup> and have used them in the past or are currently using them. Cash remains the preferred mode of payment of low-income communities.

Cash is the popular and preferred mode of payment among the community (Figure 8) due to the control it provides over personal and household finances and expenses. However, digital payment systems were preferred over cash for the

security and proof of transaction they provide. Given the low-income community's reasons for preference of traditional cash-based payments and various issues identified with onboarding onto the digital payment landscape, financial service providers and formal financial institutions can identify avenues for improvements and design products better suited to the needs of the communities.

Digital finance providers can partner with traditional informal financial systems such as community lenders and overcome the delays and formalities required by formal financial institutions like banks to provide access to a variety of financial services such as credit, insurance, etc. (Ozili, 2018).

Awareness among these communities about different digital payment systems such as Unified Payment Interface (UPI), Unstructured Supplementary Services Data (USSD) and Aadhaar Enabled Payment Systems (AEPs) remains critically low within low-income communities, although awareness regarding digital or e-wallets is comparatively higher. In some households, mobile and internet recharges were done through digital wallets.

Perceived notions regarding the features and impact of using digital payment systems on the households' finances and savings also determine the willingness of the household to adopt digital payments (Figure 9).

Fig 8: Cash versus digital payment systems

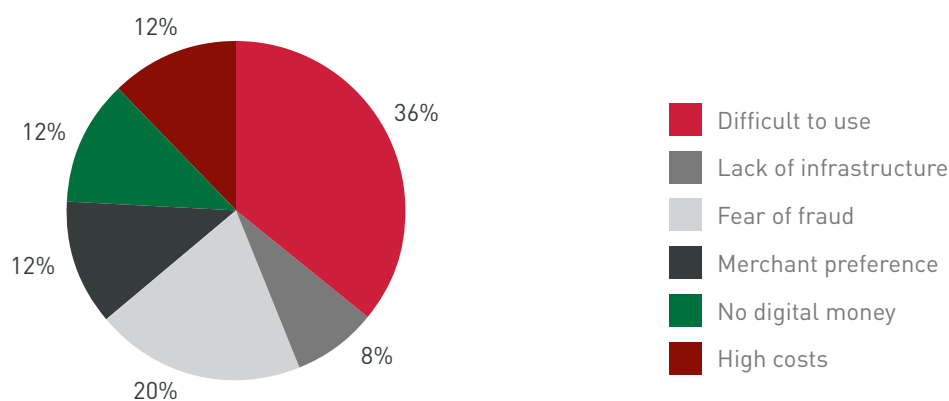
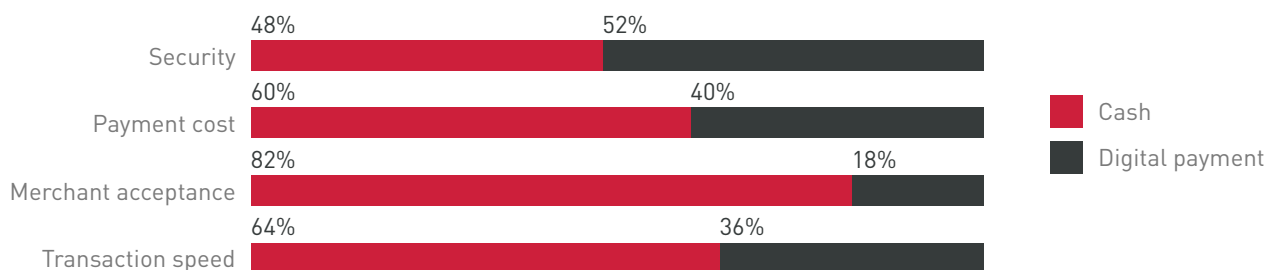


Fig 9: : Reasons for lacks of adoption of digital payment systems

<sup>3</sup>They were asked about mobile/e-wallets/USSD/AEP/UPI, cards/net.

Difficulties and inconvenience with usage of digital payment systems are the most common problems cited by the community.

Low-income communities also lack the infrastructure needed to adopt and use digital payments seamlessly. Only one in every four households in Bhatta Basti has access to internet facilities in any form, i.e., WiFi, mobile internet, data cards, etc.

Furthermore, only 77 percent of the households in Bhatta Basti had at least one feature phone, i.e., managed and handled by one member but used by the entire household. However, only 29 percent of the households had at least one smartphone, handled in a similar fashion.

Beyond the primary features of smartphones, i.e., call and messaging facilities, calculators and alarm clocks, etc., smartphones were largely used for entertainment and social media purposes. Facebook and WhatsApp were found to be popular social media platforms used by households in Bhatta Basti (Figure 10).

With rising mobile phone penetration, introduction of digital payment systems suitable for feature phones along with drastic improvements in smartphones, it must be noted that digital financial inclusion is an achievable target, with participation from all stakeholders (Rizzo, 2014).

Another indicator of a low-income community's digital readiness and willingness to adopt digital payment systems is their desire to learn more about them. More than one in every three household heads would

prefer a door-to-door awareness campaign to learn about the rules, features and necessities of digital payments directly from an expert. This is because it allows them the comfort and security of their homes to ask questions and learn with their entire family. These campaigns can be run by the government, financial service providers as well as grassroots-level enablers working towards digital financial inclusion of low-income communities.

Information dissemination through kiosks or 'melas' near their homes or places of work is also preferred by the community to learn about digital payment systems, followed by audio or visual aids such as videos sent directly to their phones.

It must be noted that generating awareness about digital payment systems and onboarding households from low-income communities is expected to cause a waterfall effect, where onboarded households are more likely and capable of persuading other households from within the community (Ozili, 2018). This is further corroborated by the research findings of the study that claim that urban communities rely on recommendations and advice from the social circle and tend to opt for financial services and products that have been tried and tested by others in the community.

Adoption of digital finance mechanisms by low-income households, such as those in Bhatta Basti, can ensure the disadvantaged urban poor have greater control over their finances and also support informed financial decision making (United Nations, 2016).

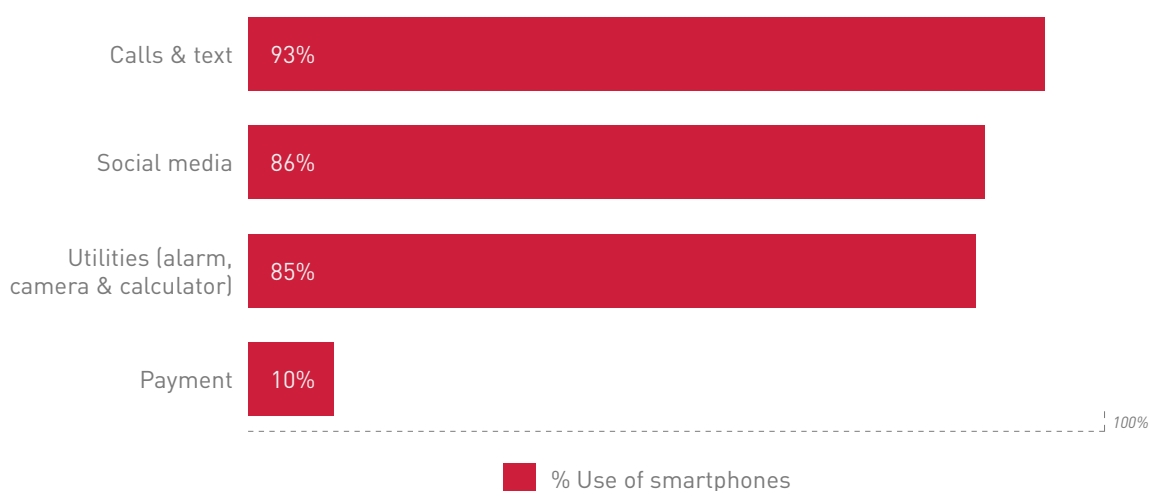


Fig 10: Primary use of smartphones



## 5. Summary

Digital readiness of a community is a product of the socio-economic characteristics of its households. Despite the obvious economic and social benefits arising out of digital financial inclusion of the urban poor, adoption and uptake have been continually found to be lagging. Households in Bhatta Basti, due to their money management practices, suffer from low income levels and lack of saving options, and have high consumption expenditure patterns and poor financial literacy. Therefore, they rank low on their digital preparedness and potential to go cashless immediately.

The results of this study indicate that the current level of digital penetration within low-income households of Bhatta Basti is poor. Despite the presence of some level of basic financial literacy, the community still keeps faith in the convenience and safety of cash-based transactions and is hesitant to wholly adopt digital payment systems. The mere availability of digital financial systems does not guarantee accessibility to low-income communities (Ozili, 2018), as they lack the basic infrastructure and knowledge required to use them. Furthermore, the hidden costs coupled with the visible costs of

using digital payment systems often override the benefits they may derive. Operational risks including consumer-related risks such as shaky privacy laws and risks related to financial crime like fraud are also reasons behind the lag in adoption and usage of digital finance systems (Lauer & Lyman, 2015).

This lag in desire and access highlights a window of opportunity, where formal finance providers and regulators must partner with local money lenders and financiers to ensure penetration into the community networks. Furthermore, since urban slum dwellers show interest in training, the establishment of community centers for information dissemination can also encourage rise in financial literacy, leading to increased financial inclusion (Bapat & Bhattacharyay, 2016). In this regard, a collaborative approach to digital financial inclusion is required between policy makers, grassroots enablers, community champions and as well as private sector financial service providers, telecommunication service providers and regulatory authorities (ITU Telecommunication Development Bureau (BDT), 2016). The complex dynamic of the poor urban household needs to be understood to penetrate the market, leverage demographic strengths, and educate and include them into the formal financial service domain.





## Methodology

**Sampling:** A total of 442 household level surveys were conducted in Bhatta Basti by an IFMR LEAD team. Sample sizes were calculated based on a population estimate of 45,000 persons living in the area. The areas within Bhatta Basti that were covered included (but were not restricted to) Lankapuri, Shahid Indra, Sanjay Nagar, Srirampuri, Bhomiya Basti and Rajiv Nagar. Sampling was conducted on a cluster basis, and surveyed by a random selection of households.

**Tool:** The key survey tool was designed using inputs from FIA, an India-based organization with expertise in developing technology for mobility and online payment solutions for the masses. The tools were designed to capture data on basic information regarding the respondents and their households with a primary focus on collecting information on major themes of the study: income levels, borrowing and saving profiles, expenditure patterns, financial literacy and digital knowledge.

**Timeline:** The needs assessment study was conducted in the period from August 2017 to September 2017.



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