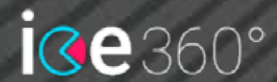




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# DECODING HOME-BASED BUSINESSES' PREFERENCES

AN ANALYSIS OF DIGITAL PAYMENT BEHAVIORS OF  
HOME-BASED BUSINESS OWNERS IN JAIPUR

**Principal Investigators:** Badal Malick and Rajesh Shukla

**Co-Investigators:** Pratibha Joshi and Megha Shree

**Supporting Research Team:** Anshuman Mehta, Ankur Gautam and Harsh Nisar

**Design:** Allan Macdonald **Technical Editor:** Ananda Swaroop



### About CATALYST

CATALYST is a user-centric 'digital finance 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 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.



### About PRICE

People Research on India's Consumer Economy (PRICE) is an independent, not-for-profit research centre, a 'think tank' and 'facts tank' engaged in building and disseminating seminal knowledge and insights about India's Macro Consumer Economy and Citizen's Environment, for use in formulating public policy and in shaping business strategy. The core of PRICE's work focuses on "how India, earns, spends, saves, lives, thinks, accesses public goods and amenities". Its Mission is to build and disseminate high quality, inter-connected, reliable and up-to-date data to capture the ground realities of Indian households. By providing insights through relevant and rigorous analysis, it aims to enable evidence-led policy formulation, regulatory response and business decisions.

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# EXECUTIVE SUMMARY

Over the past few years there have been concerted efforts in India and globally towards improving financial access and inclusion, resulting in achievements in terms of improved ownership of bank accounts. As per the latest Global FINDEX<sup>1</sup> report, while 80 percent of India's population now has a bank account, only 52 percent demonstrate any sustained use (over the past 12 months) of their accounts. The next line of innovation and effort will have to focus on improving use of financial products and services that meet the needs of different population sub-groups. This report closely examines a sample of Home-based Businesses (HBBs) in Jaipur, and draws out potential pain-points in business operations, patterns of financial habits, and avenues where digital technology can play a role to foster greater financial inclusion.

In India, understanding the HBB segment is crucial for achieving greater parity in gendered access to finance as home-based work is an important avenue for women to earn livelihoods. Thirty-two percent<sup>2</sup> of women in India in non-farm work are home-based workers while the comparable proportion of men is much smaller at 11 percent. Within home-based work, some take entrepreneurial risk and are self-employed, also known as own account work, i.e., operating HBBs with no employees. Another type of home-based work consists of sub-contracted work which relies for work from a firm or its contractors.<sup>3</sup> Within home-based work, own account work is the main form of employment. This segment of single-person operated home businesses aspires to grow:

in our sample, 73 percent want to grow their businesses, yet they require supportive ecosystems to help achieve upward income mobility. This report elaborates on potential pain-points in business operations and the financial context where digital financial service providers and policymakers at large can innovate to provide the necessary support structures for this aspirational group to improve their financial health.

In the report, we find most HBBs to be operating informally without registration; only a small proportion of 5 percent are mandated to pay the Goods and Services Tax (GST). HBBs economize on operations by leveraging household assets such as household premises, and family members who help out with business activities and operations. There is extremely low uptake of digital payments in the HBB segment, with only 7 percent reporting adoption of some form of digital payments. Interestingly though, this small group has largely taken to wallets driven by demonetization which drastically reduced their supply of cash. Lack of awareness tops the reasons for not adopting digital technologies. This seems likely, as only one-fourth of the sample having access to internet, 39 percent have smartphones and reported educational achievement is not beyond class 10 and/or 12.

Cash dominates all types of transactions (with customers and suppliers) for the HBB segment. With nearly all business transactions occurring in cash, and a high proportion of household income getting spent on meeting household expenses, we find a large proportion of weekly

<sup>1</sup>The Global Findex Database, 2017.

<sup>2</sup>NSSO Employment-Unemployment surveys, 2011-12.

<sup>3</sup>Our sample comprises both these types of home based work.

cash flows being kept at home/store. This is not irrational, as business owners need to have cash available for business transactions and to meet home expenditures. Furthermore, they have liquidity mismatches arising from varied cash inflow versus outflow for which they need to keep cash handy. These are various business nuances which can be addressed while designing financial products for the HBB segment. Given that few track any business transaction, there are tremendous gains possible by way of business insights not just for HBBs, but also for alternate forms of credit that can be based on transaction and cash flow information.

Thirty-three percent of the HBBs express a need for credit – most take loans from Micro Finance Institution (MFIs), a few from banks. This indicates room for existing banks and financial institutions to build underwriting capacity to provide loans at affordable rates, and use alternate transaction data to be able to assess the risk of this group. Repayment risk is expected to be lower for this group given that most operate from home premises.

Potential to save is constrained by the level of incomes generated by these businesses. On average, annual revenues total INR 150,000 and, after meeting household

expenses and reinvestments in business, they have small amounts of INR 5,000 left over for saving/investing in financial products. Business incomes could improve if alternative credit lenders were able to reach out and provide HBBs with working capital. Though the HBB segment has a desire to save, reaching a threshold amount that warrants a time-consuming trip to the bank to make a deposit is difficult. Only 18 percent of the group reports monthly bank use. Before this group can shift to digital practices, short duration liquid saving opportunities would be well suited for this group to ensure there is adequate access to cash and greater interaction with digital financial services.

To sum up, HBBs run small scale operations, although mostly relying on gut and intuition and few hard facts on businesses performance. As they have small savings and a high velocity of cash-based transactions as well as a need for credit, there are opportunities for digital financial service providers to innovate and create products optimized to their needs. Such solutions can improve financial practices but also lend greater control and efficiency in the way these businesses are run, providing considerable support to the HBBs to meet their vision of expanding business operations and generating higher incomes.

# METHODOLOGY

CATALYST has been working on real-life scenarios to develop insights, solutions and models for digitization of small merchant payment ecosystems. As part of this program, CATALYST has combined lean operational research with more rigorous, large sample methodologies to inform the broader digital financial services landscape. While most of this learning has been gathered from Jaipur, we believe it has fundamental relevance to small merchants across the country, and particularly in tier II urban clusters.

This report is based on the 495 Home-based Businesses (HBBs) surveyed as part of a baseline survey conducted for the broader impact assessment study commissioned by CATALYST and conducted by People Research on India's Consumer Economy (PRICE).<sup>4</sup> The survey which covered 1,308 Fixed Store Merchants (FSMs), 309 street vendors, 402 individual service providers, and 495 HBBs was completed in September 2017. Geographically, the sample was spread across Jaipur city. The listing was a manual paper and pencil exercise while the detailed survey was carried out digitally on android devices.

All the 60 sample household locations were selected (near 30 market areas) by following a walk through pattern and snow ball technique. From 60 residential locations, about 200 households each were surveyed for the listing exercise. Households which reported businesses operating out of a secondary fixed structure were excluded from the sample (as they would be classified as FSMs). Only those were selected where the business was operating out of the household. A digital score based on indicators,

namely, annual turnover, access to the internet, usage of computers, laptops, landlines and mobile phones for business, type of phone, bank account, type of loan and usage of digital payment formed the first stage of selection. These households were stratified into six broad categories based on nature and format of primary occupational activity: roaming, temporary structure, home-based business, Independent Service Provider (ISP)-fixed remuneration, ISP-activity based remuneration, and salary earning households.

A quantitative survey with a structured questionnaire was then administered to the sample, piloted before roll-out and refined for use. The topics covered in the questionnaire collected data on merchant demographics, their business operations and transaction information, their banking and payment habits, and usage and preference for digital products.

Data cleaning was conducted to identify corrupt, incomplete or inaccurate parts and replace, modify or delete this inconsistent data. Data-type validation was performed to ensure that the data outputs were valid. After a first round of univariate and descriptive analysis using median as the measure of central tendency in a majority of the analysis, correlations and regression of scale data were used to analyze patterns. These tasks were performed using Stata® and Python™ by trained and experienced data analysts. Qualitative insights based on in-person interviews with merchants were used to substantiate arguments and provide in-depth understanding of certain aspects.

<sup>4</sup>PRICE is an independent, not-for-profit research center engaged in building and disseminating seminal knowledge and insights about India's macro consumer economy and citizen's environment, for use in formulating public policy and in shaping business strategy. The core of PRICE's work focuses on "how India, earns, spends, saves, lives, thinks, accesses public goods and amenities."





# INTRODUCTION

The digital payments landscape in the country has seen huge transformation driven by implementation of enabling policy and creation of publicly available infrastructure. Several fiscal and technology initiatives as well as the growth of Jan Dhan accounts, large-scale Aadhaar seeding, increased access to low-cost smartphones, dramatic reductions in data costs, etc., have ensured that Indians have access to infrastructure for higher financial and digital access. Yet, usage of these bank accounts is low<sup>5</sup> and last mile connectivity continues to be a problem. Micro, small and medium enterprises (MSMEs) contribute 29 percent to India's Gross Domestic Product (GDP).<sup>6</sup> As a majority of these constitute fragmented microbusinesses run by individuals,<sup>7</sup> getting connected to the digital ecosystem through organic and demand-driven strategies would enable greater access to information and markets as well as improve financial inclusion.

This report specifically targets home-based businesses (HBBs), defined as individuals who work from their own homes or adjacent grounds or premises to earn a livelihood.<sup>8</sup> HBBs as a group are not homogenous, and lie along a spectrum of skills and risk-taking models of operation.

Some home-based workers are independent, self-employed workers who take entrepreneurial risks. Others are dependent on a firm or its contractors for work orders, supply of raw materials and sale of finished goods.<sup>9</sup> As per the National Sample Survey Office (NSSO) 2011, there are 37.4 million home-based workers in India of whom 42.8 percent are women.

Among all vendor types covered in the CATALYST- PRICE survey, HBBs have the highest representation of women in the sample. Cultural and gender norms often result in women preferring home-based work (see Boxes 1 and 2). The HBBs sampled belong to three main sectors: trade, manufacturing and services. HBBs are complex businesses with substantial variations in the type of work, ranging from contractual manufacturing jobs, to services, to running kirana shops; and their business models have a varying percentage of repeat customers, transaction frequency, ticket size, revenue, and potential for profit margins. These nuances are expected to influence the design of digital payment solutions for HBBs as well as their adoption and sustained use.

Few HBBs have adopted<sup>10</sup> digital payments and only 2 percent

demonstrate sustained use of digital payments. The 7 percent of HBBs that have adopted digital payments are all men. They are slightly younger than non-adopters, more educated as a group, and are mostly traders. In India, men usually have greater exposure to education<sup>12</sup> and interaction with other businesses and institutions which results in higher awareness and adoption of digital technologies. Our HBB sample is no different.

In the next section, we delve into the social context and demographics of HBBs. Section 3 discusses business economics and transaction contexts of HBBs, while Section 4 discusses patterns of digital adoption along with associated opportunities and barriers. Section 5 elaborates on aspects of business processes where HBBs stand to gain the most from digital solutions. Section 6 discusses digital and financial infrastructure readiness and capabilities that would facilitate financial inclusion. Section 7 elaborates on perceptions held by HBBs regarding the utility of digital technology in their businesses, while Section 8 concludes with areas for interventions and solutions/innovations that could lead to greater uptake of digital finance among HBBs.

<sup>5</sup>India has 48 percent of inactive bank accounts, the highest in the world and twice the average of 25 percent inactive bank accounts in developing countries. The Global Findex Database, 2017.

<sup>6</sup>Annual Report, Ministry of Micro, Small and Medium Enterprises 2017-18.

<sup>7</sup>Sixty-two percent operate own-account enterprises, i.e., enterprises where the founder is its only employee (NSSO 73rd Round, Unincorporated Non-Agriculture Enterprises, 2015-16).

<sup>8</sup>The Government of India defines a HBB worker as someone who "carries out the work in his or her home, or in other premises of his or her own choice, but not in the work place of the employer." ([http://mospi.nic.in/sites/default/files/publication\\_reports/report\\_home\\_based\\_worker\\_28july08\\_final.pdf](http://mospi.nic.in/sites/default/files/publication_reports/report_home_based_worker_28july08_final.pdf)).

<sup>9</sup><http://www.wiego.org/sites/wiego.org/files/publications/files/Raveendran-HBW-India-WIEGO-SB10.pdf>.

<sup>10</sup>An adopter are defined as anyone who reports having used any of the following digital payment options such as wallets, UPI, PoS, internet banking as used by Mapping the Merchants Mind (CATALYST-PRICE 2018).

<sup>11</sup>Digital users are defined as those who report transacted values of 5 percent or greater carried out through digital channels (i.e., wallet, internet banking, PoS, and UPI). This definition is the same as digital use in Mapping the Merchants' Mind (CATALYST-PRICE 2018).

<sup>12</sup>According to Census 2011, the male literacy rate in India is 82 percent, while the female literacy rate is 64 percent.







The background of the entire page is composed of numerous thin, parallel diagonal lines in varying shades of gray, creating a textured, geometric effect. The lines are arranged in a way that they appear to recede into the distance, giving a sense of depth and movement. The overall color palette is monochromatic, ranging from light gray to dark gray.

# 1

## UNDERSTANDING THE HOME-BASED BUSINESS (HBB) LANDSCAPE

*Economic, social and educational constraints inhibit HBB  
owners from participating in the digital payments ecosystem*



## 1.1

### Categories of work HBBs are engaged in

As the term HBB suggests, 82 percent of our sample works out of home and not from an employer's workplace. While the remaining 18 percent are home based, most of their business work is carried out away from the home.<sup>13</sup> HBBs are predominantly informal businesses; 89 percent in our sample were not registered with the government.<sup>14</sup> The HBB sample is classified into three categories: manufacturing, trade, and services. Traders have the highest (50 percent) representation in the HBB sample while manufacturing and services comprise the other 30 percent and 20 percent, respectively.<sup>15</sup>

Nearly 76 percent of HBBs that trade are kirana/general stores. Other trading activities relate to sale of clothing and food items, flower garlands, and paint materials. HBBs that create products such as puppets, lac bangles, or tie and dye or embroider fabric are classified as manufacturing businesses. They comprise family-based traditional handicrafts businesses as well as those that are provided raw material by contractors to be converted into finished products. Service providers work as tailors in the apparels sector (37 percent) and as laborers in the hardware and construction sectors (10 percent). Other services comprise dry cleaning and ironing, scrap dealing, books binding, performing in music bands, etc.

## BOX 1

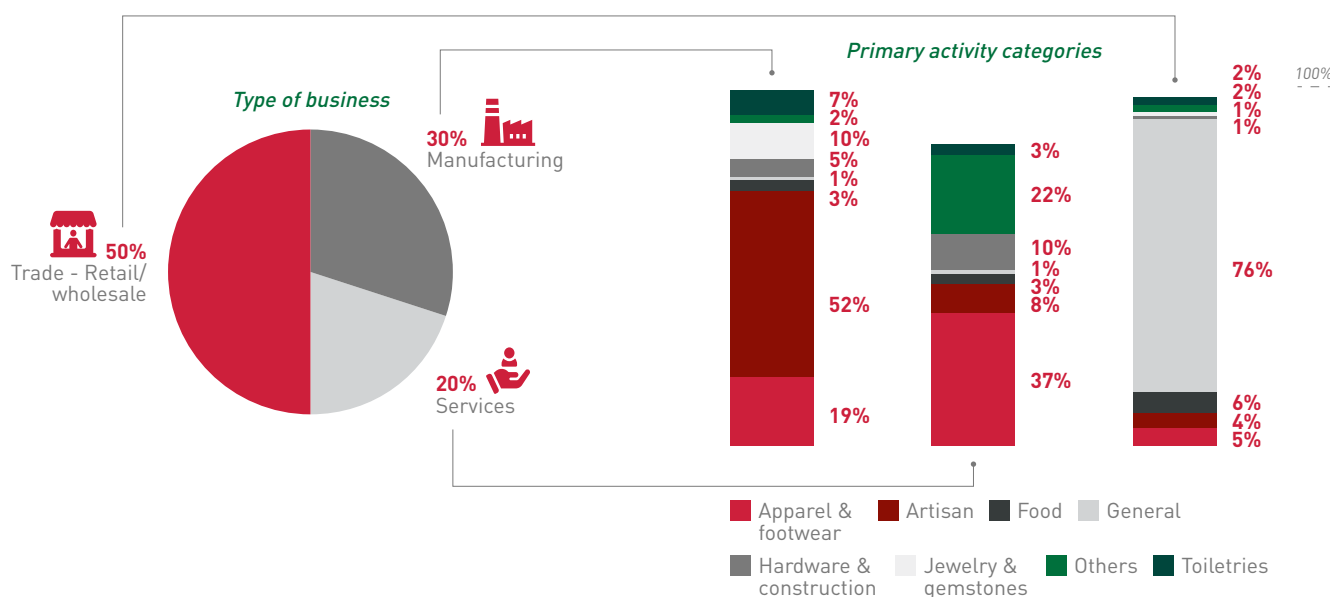
### Profiling a woman HBB owner

Sarita, 34, is tending to her infant child when a customer approaches her stall to buy shampoo sachets. She looks for them in the stall and unable to find them, goes back inside her house just behind the stall to search in the stock. She comes back and hands out the sachets to the customer, collects the cash and goes back to tending to her child.

Sarita started this business about five years ago to supplement the family income and receives about eight to 10 customers every day. She makes about INR 100 a day from this activity and this earning is spent on household expenses. Sarita uses a feature phone to keep in touch with her family only and for no other purpose. She opened a bank account under the Jan Dhan Yojana but has not used it for withdrawal or deposits because she feels she does not earn enough. However, she shows common sense in running her business even though financial literacy and digital awareness is low. She has an Aadhaar card but she is not sure if her Aadhaar number is linked to her bank account. She is unaware of digital payments and uncomfortable about starting to use such solutions.

Many women, like Sarita, from low-income households in Jaipur, run small businesses from their homes to earn a livelihood or supplement family income. Most businesses are small retail outlets that sell products of daily need and cater to customers in the neighborhood or provide services such as ironing clothes or running beauty parlors from home. Women are also involved in subcontracted work such as making bangles, tying-and-dyeing fabric, making flower garlands, and so on, for contractors.

Figure 1: What kind of work do HBBs do to earn a living?



<sup>13</sup>Many of these are businesses that manufacture as bulk of the work of sales is done outside the home; others are in the transportation or apparel/footwear sector.

<sup>14</sup>In sharp contrast, 84 percent of FSMs are reportedly registered (Mapping the Merchants Mind: An Analysis of Digital Payment Behaviors by Fixed Store Merchants in Jaipur, Catalyst-PRICE 2018).

<sup>15</sup>The composition of manufacturing, trade, and services in HBBs is random and not representative of Jaipur HBBs.

## 1.2

### HBB owners' behavior and socio-economic situation

**D**igital adoption is low across the board in the HBB segment. Within each business category, the percentage of digital adopters is nearly the same: manufacturers at 6 percent, services at 5 percent and traders with a slightly higher proportion at 9 percent. The median age of an HBB owner is 42, while that of a digital adopter is 38. In addition, HBBs as a group do not perceive the value of adopting digital payments for business and the majority is unsure of the benefits digital payments could provide.

While 97 percent of the HBB sample reports owning a mobile phone, only 72 percent stated that it was used for business purposes. Trade and services categories have a similar proportion of smartphone and feature phone owners; more than half of the manufacturers have basic phones.

Although almost 96 percent of HBBs have bank accounts, there is little monthly use as HBBs' income levels allow very little room for savings. Bank usage behavior is similar across business categories in terms of deposits and

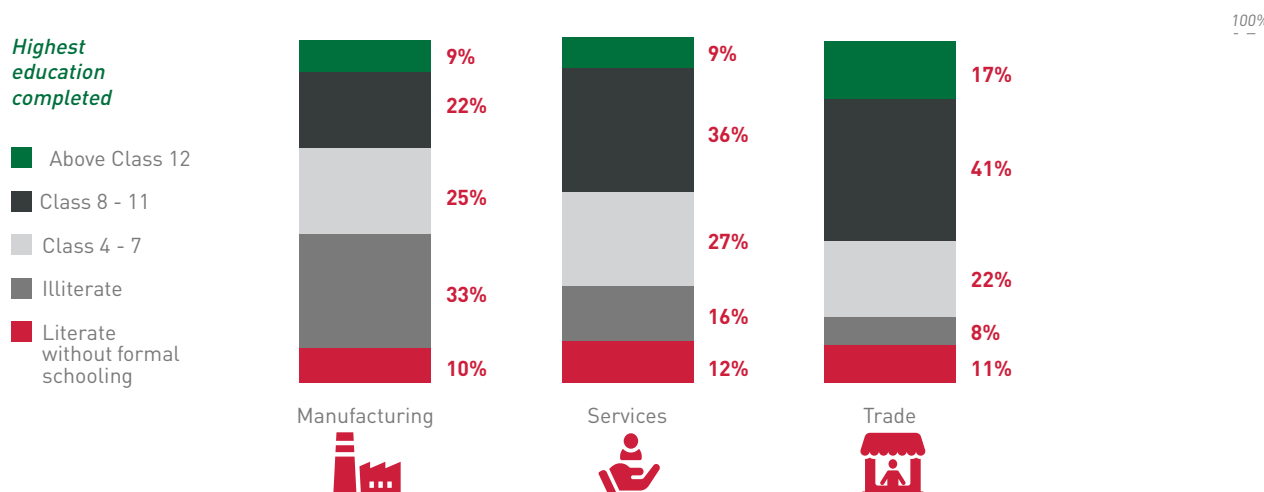
withdrawals from bank branches or ATMs – all uniformly low.

Educational achievements of HBB owners appear to be lower than those of FSMs<sup>16</sup> that, as a group, included over 41 percent graduates. In comparison, barely 5 percent of HBB owners are graduates.

Within the HBB group, traders demonstrate the highest educational achievements, tend to be older, and also report highest household and business revenues. Traders have the lowest proportion (8 percent) of respondents who report that they are illiterate, and the highest proportion (19 percent) that has completed at least class 10 and 11. Manufacturers report the lowest educational achievement with 33 percent being illiterate and also the lowest household income despite having two earners in the household.

More than two-thirds of the HBBs have been in existence for five years or more and 42 percent is over 10 years old. Most of the older businesses in our sample are manufacturing entities that have been inherited.<sup>17</sup> In contrast, services providers and traders are largely self-starters, which is likely to influence the extent to which they may be inclined towards new technologies that will enable their businesses to grow.

Figure 2: How educated are HBB owners?



<sup>16</sup>Mapping the Merchants' Mind, CATALYST-PRICE 2018.

<sup>17</sup>47 percent of manufacturers report having a part time job, compared to 15 percent of service providers, and 29 percent of traders.

## 1.3

### Gender distribution and approach to digital technology

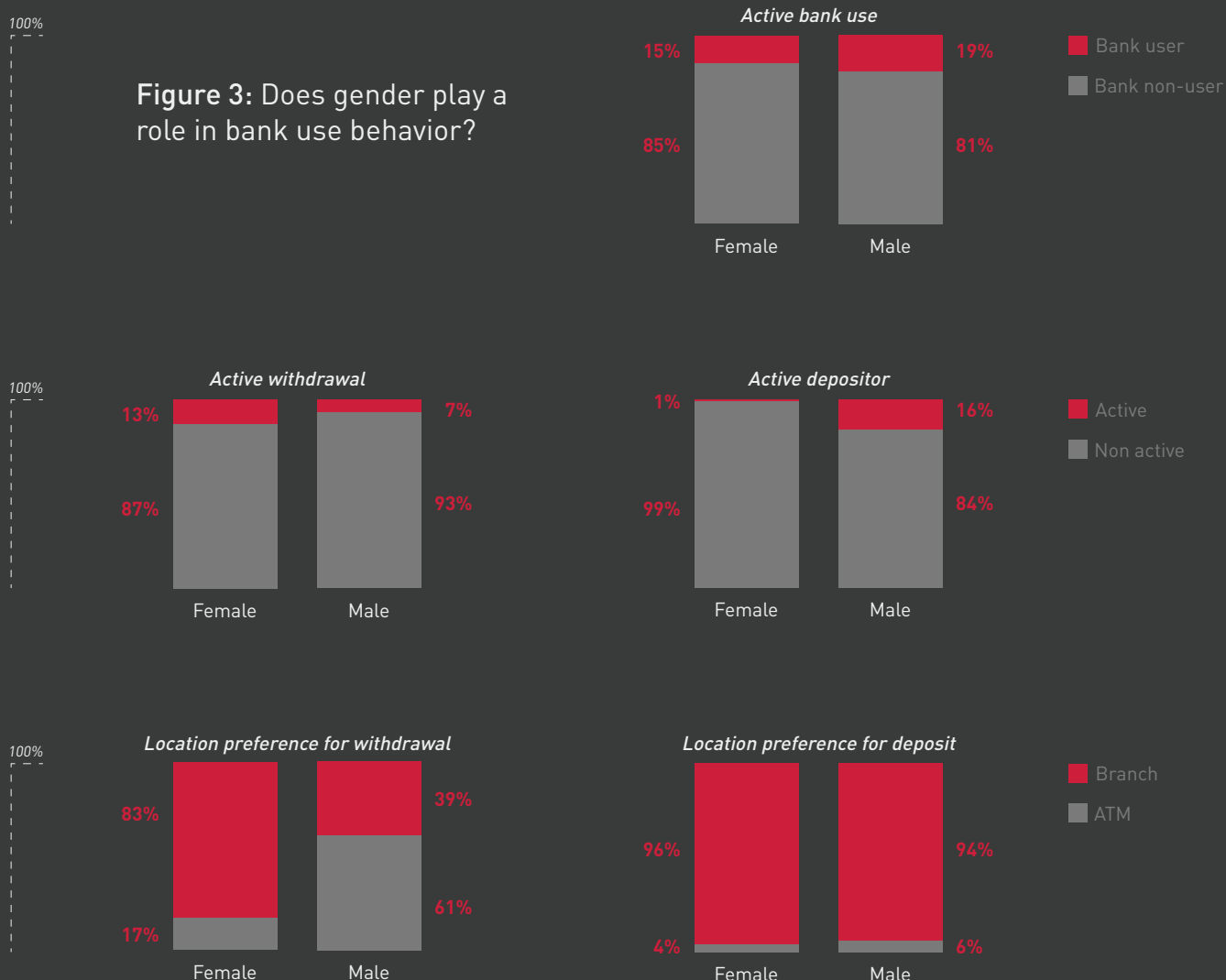
Social norms and gendered division of household responsibilities can result in a larger number of women seeking home-based economic activities. HBBs have a much higher representation of women compared to other small business groups:<sup>18</sup> 14 percent were reportedly owned by women. Interestingly, there is not much variation in gender ownership across the three business categories (trade, manufacturing, services).

## BOX 2

### Impact of cultural and gender nuances on digital finance

It is a significant finding that none of the 37 digital adopters in the HBB sample is a woman.<sup>19</sup> While there are no major differences in perceptions on the utility of digital payments between men and women nor in their overall levels of banking activity,<sup>20</sup> they do differ in educational achievement, type of phone ownership, income levels, and in their patterns of bank use. Forty-four percent of women are illiterate compared to 13 percent of men; 63 percent of women own basic phones compared to only 34 percent of men; 13 percent own smartphones compared to 43 percent of men. Women in our sample also reported significantly lower business and household incomes, relative to men (see Table 1).<sup>21</sup>

Figure 3: Does gender play a role in bank use behavior?



<sup>18</sup>The CATALYST-PRICE survey covered four micro business segments: FSMs, HBBs, individual service providers and street vendors.

<sup>19</sup>The sample size of women in the HBB group is 68; the sample size of men in the HBB group is 427.

<sup>20</sup>Active bank use is defined as when a person reports depositing or withdrawing from the bank at least once during a one-month period.

<sup>21</sup>While these reported differences are significant, we are cautious in their interpretation given biases in self-reported income figures.

While both men and women strongly prefer to deposit cash in bank branches vs. ATMs, women also strongly prefer withdrawing from bank branches vs. ATMs. This could be due to fewer women owning debit cards<sup>22</sup> but may also reflect differential attitudes or apprehensions towards technology.

We also find some interesting gender-based variations in deposit and withdrawal patterns. Women seldom make monthly deposits (63 percent report making occasional withdrawals), but a small proportion does withdraw on a monthly basis. Again, this points towards potential imbalances in levels of financial empowerment.

There could be several factors that influence the women's behavior – education levels, amount of money available for depositing, cultural norms where men are more comfortable interacting with institutions and

different environments, or gendered household finance practices where women might be in charge of household expenditures while men deposit earnings into the bank. It is also possible that women are engaged in lower income generating activities and take longer to accumulate enough money that warrants a trip to the bank. What is salient, however, is that these behaviors and norms seem to continue even for households with women led enterprises

This calls for further research into gendered roles in the intra-household division of financial responsibilities especially for households wherein women are engaged in income generating activities, allocation of different sources of income towards expenses versus savings, preferences for financial transactions carried out outside the house, as well as both access and comfort with digital financial technologies.

**Table 1: Does gender affect business and household incomes?**

	<b>Male business owners</b>	<b>Female business owners</b>
Household income (in INR median)	150,000	100,000
No. of household earners (including respondent)	2	2
Reported business income (in INR median)	90,000	50,000
Reported contribution to household income (in INR median)	84,000	50,000
Reported contribution to household income (% total)	56%	50%

<sup>22</sup>Fifty-six percent of women do not own debit cards while 30 percent of men report not owning debit cards. There are 68 women and 427 men in the HBB sample.



## 1.4

### Household disposable income

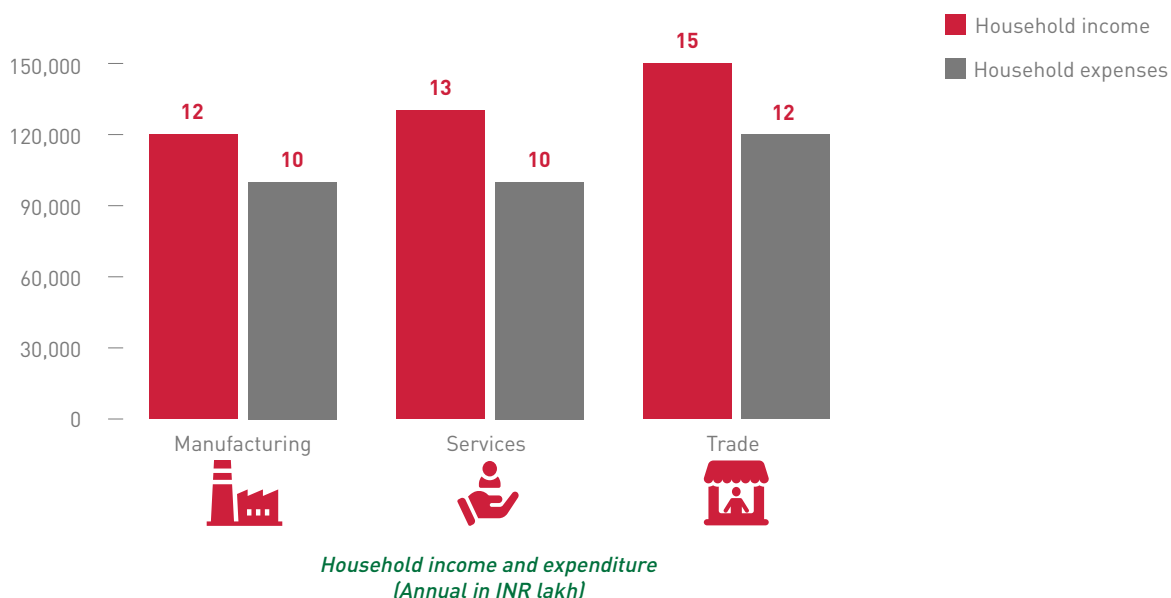
It is important to recognize that HBBs have low disposable incomes. Most of this income is spent on household expenses, with little left over as savings or investments in a future.<sup>23</sup> The digital adopters in our

sample have higher than average household incomes of INR 200,000 per annum. In comparison, traders report an annual household income of INR 150,000, services INR 130,000, and manufacturing INR 120,000. Across the board, roughly 80 percent of household income is reportedly spent on consumption expenditure.

HBB household incomes are similar to those reported by non-agricultural

labor in broader consumer surveys<sup>24</sup> at INR 9,000-10,000 per month and lower than the INR 19,000 per month reported for merchants with fixed establishments. Therefore, strategies to facilitate adoption of digital solutions among more established merchants are unlikely to work for HBBs given much smaller scale operations and lower levels of surplus income.

**Figure 4: How much of their income do HBBs spend on household expenditure?**



<sup>23</sup>Further research is required on threshold income levels that encourage savings behaviors to further prompt regular usage of digital or traditional finance products.

<sup>24</sup><https://www.livemint.com/Industry/4l8d4GnxLL4W7Ny6oNhzc0/How-Indians-earn.html>

# 2

## DELVING DEEPER INTO HBBs' GROWTH PROSPECTS

*Despite widespread aspirations for business growth, HBBs' smaller scale of operations and profit margins may inhibit investments in currently available digital technologies*

## 2.1

### Small scale of operations and turnover

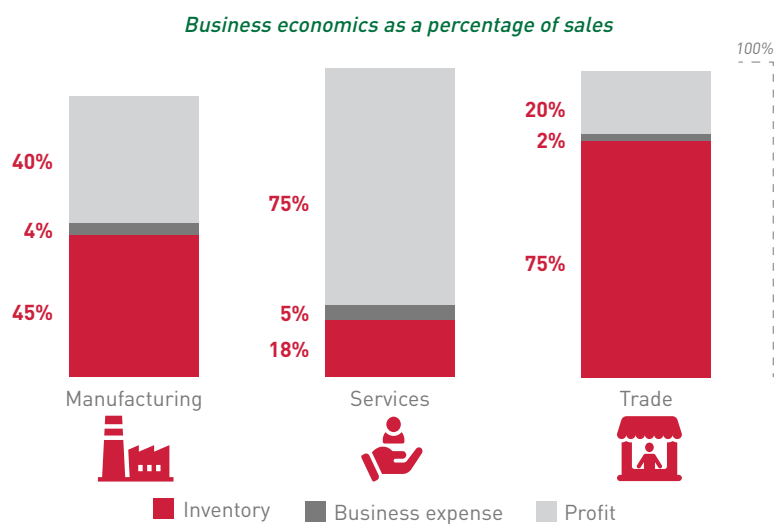
**H**BBs operate on smaller scales as compared to FSMs.<sup>25</sup> However, for their level of turnover, the business ratios seem in line with those observed in FSMs. In fact, HBBs end up with much lower business expenses (not including inventory or 'cost of goods' costs, which remain significant) as they utilize household resources and save on costs such as rent, wages, etc. Consequently, HBBs report business margins of approximately 20 percent.

The trade category reports the highest median sales turnover of INR 400,000 a year followed by manufacturing at INR 200,000, and services at INR 110,000. Traders have a higher variance in annual sales and inventory cost (not unusual as trade usually has a greater churn in sales and inventory). However, most of these businesses end up with similar median profit levels, even the trade category. The resultant monthly contribution to household income is INR 5,500 for trade, INR 6,000 for manufacturing, and INR 7,250 for services.

The HBBs' informal way of conducting business blurs lines between the entity of a household and that of a business. HBBs leverage household assets and resources — by way of using the household space for carrying out business activities and getting household members to help with either manning the business or at product preparation time. These businesses usually do not formally employ<sup>26</sup> people, relying instead on unpaid family members. Though the labor-intensive manufacturing group had 73 percent of respondents reporting at least one employee, nearly all of these were unpaid family members.<sup>27</sup> Further, 94 percent of the respondents owns the houses and 6 percent rents the premises from which they operate.

Figure 5: Business costs and business economics

	 Manufacturing	 Services	 Trade	Overall
<b>Sales</b>	200,000	110,000	400,000	250,000
<b>Inventory</b>	90,000	20,000	300,000	150,000
<b>Business Expense (Annual)</b>	8,100	6,000	8,400	7,800
<b>Profit</b>	80,000	82,000	80,000	80,000



<sup>25</sup>Mapping the Merchant's Mind, CATALYST-PRICE 2018.

<sup>26</sup>Fifty-three percent of service providers, 45 percent of traders, and 27 percent of manufacturers report having no employees.

<sup>27</sup>Ninety percent of those with at least one employee have unpaid family members as 'employees'.

## 2.2

Transaction context: many transactions though none occur remotely

Table 2: Transaction context of HBBs

	Manufacturing	Services	Trade	Overall
Ticket size (in INR)	200	100	50	100
No. of weekly customers	19	20	150	45
Percentage of repeat customers	40	60	70	70

The manufacturing group, not surprisingly, has the largest proportion of business to business (B2B) sales. About 38 percent of manufacturers sells to businesses<sup>28</sup> while 62 percent sells directly to customers. Eighty percent of the services group caters directly to customers and, in trade, 96 percent of the businesses sells to customers. It is observed that a greater proportion (24 percent) of digital adopters sells to businesses than non-adopters (17 percent)<sup>29</sup> do.

While HBBs have small earnings and savings, they undertake a large number of transactions – both for business and household purposes. HBBs are also characterized by a high degree (70 percent) of repeat customers with whom they conduct recurring transactions. On average, they report 200 customer transactions and three supplier transactions every month, with a typical customer transaction size of INR 100.<sup>30</sup> They also report a 15-30 percent range of product margins. None of the HBBs sells online while a few (~5 percent) deliver goods to their customers' doorsteps for which they accept cash payments without any significant delays in payments.

The above described economic characteristics suggest HBBs may be best served by digital financial solutions that support micro-transactions whether it be savings or aggregated deferred customer payments.

## 2.3

Business sentiment: most want to grow but shy away from predicting future growth

HBBs' perception of business prospects is likely to influence the extent to which they may adopt new technologies to enable their businesses to grow. Seventy-three percent of HBBs wants to grow their businesses while 25 percent wishes to continue on the same scale; the remaining 2 percent wants to downsize. Although a majority of businesses are "satisfied" with their financial situation, businesses engaged in manufacturing expressed greater levels of dissatisfaction compared to both trading and services businesses. Even among manufacturers, those who have inherited their businesses seem worst off.<sup>31</sup>

Only about a fifth of businesses feel their enterprises improved over the past year, with again a much lower share among manufacturing businesses. When it comes to confidence in the future stability of their revenues, a greater number (52 percent) express an optimistic outlook, however, as many as 45 percent of HBBs are unable to even guess whether businesses will see improvements or not over the next year, and roughly another fifth feel there will be no change. This sense of uncertainty is notable and likely reflected in their appetite to invest in new initiatives and technologies.

<sup>28</sup> Calculated by classifying respondents who report greater than 50 percent of their customers as other businesses to be B2B, i.e., 'selling to other businesses' while those who report less than 50 percent of their trade with B2B as 'selling to customers,' i.e., B2C.

<sup>29</sup> The sample size of digital adopters is 37 while the sample size of non-adopters is 458.

<sup>30</sup> Median value reported across respondents.

<sup>31</sup> Manufacturers who inherit are mostly illiterate, and it is likely that they continue the family business either out of a lack of other employment opportunities or choose to continue traditional craftsmanship that is carried forward in families which might not be lucrative work.



Figure 6: How HBB businesses were founded

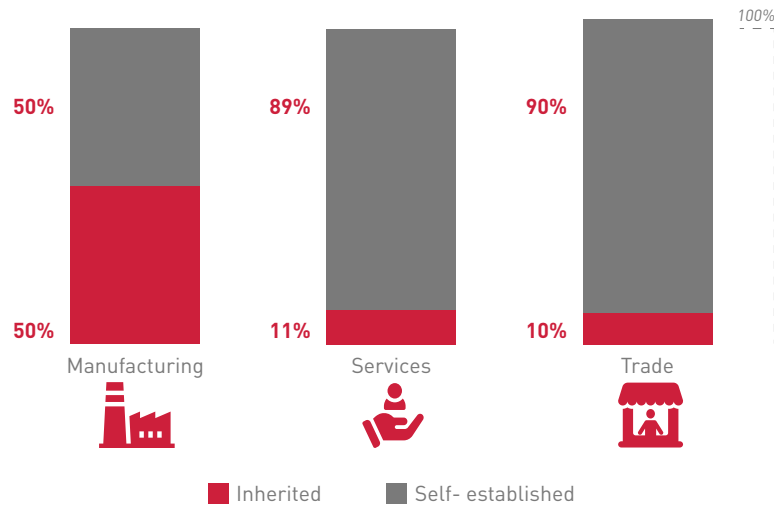
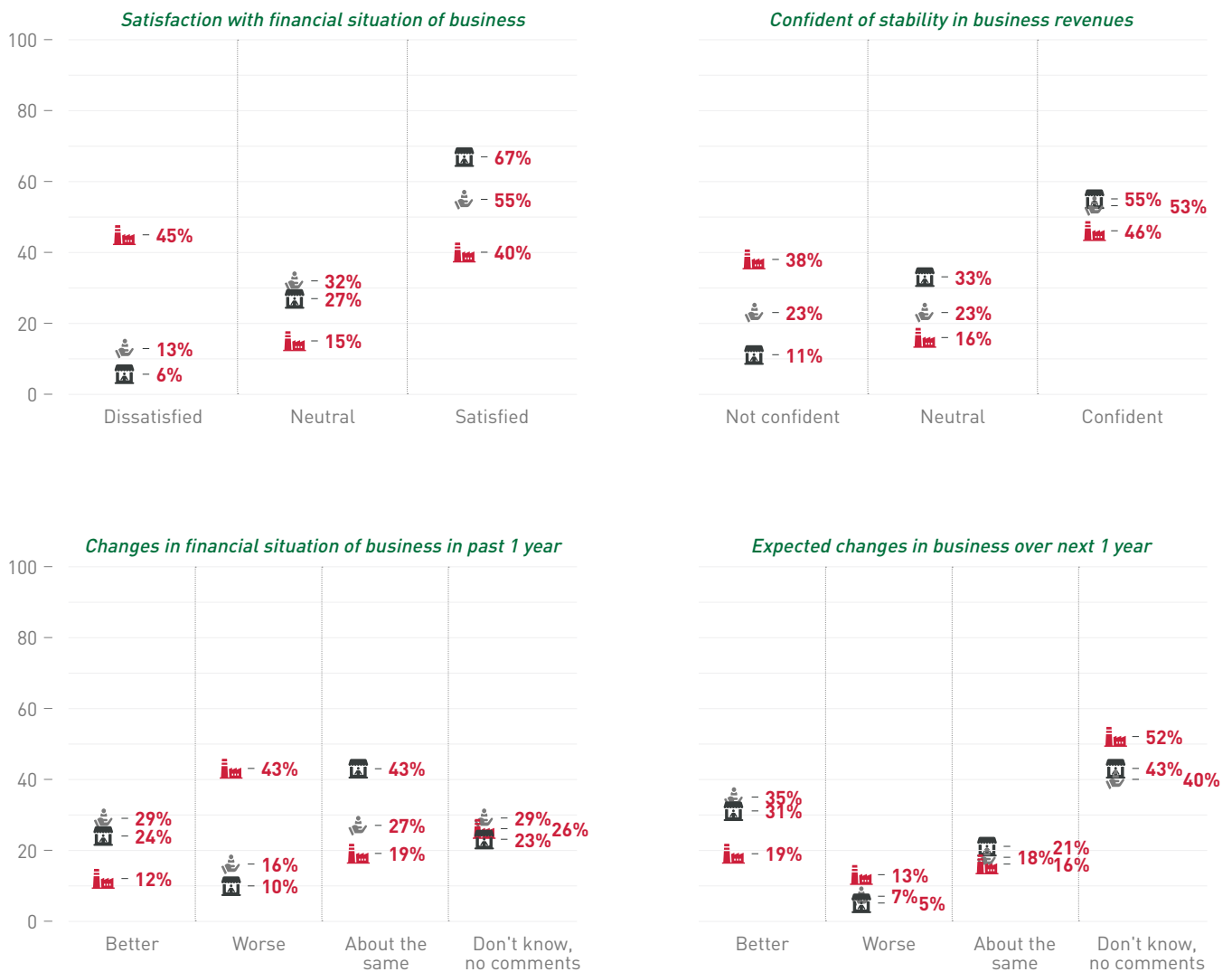


Figure 7: Business outlook, and confidence in future growth

Figures as on August 2017

Manufacturing Services Trade



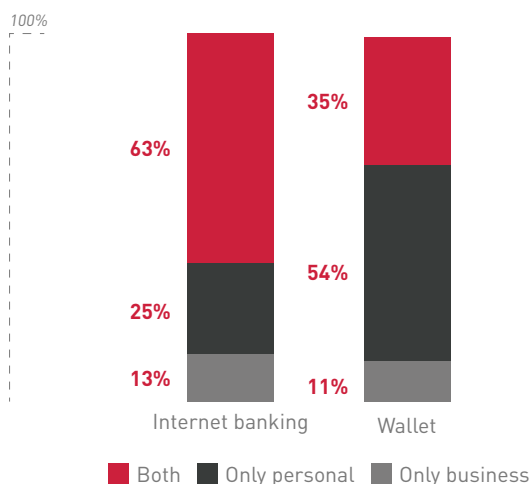
# 3

## MAPPING THE DIGITAL PAYMENTS ADOPTION DYNAMICS

*A deeper understanding of reasons for non-adoption could provide opportunities for digital finance solution providers to address pain-points*

Nearly all HBBs rely on cash for their transactions, and there is very little reported use of other modes of payments, such as digital payments or even checks. Only 7 percent of HBBs have adopted or tried digital payments and a mere 2 percent of these report continuous use<sup>32</sup> of such products. Among digital payment options, wallets (notably Paytm) appear to be the most popular, presumably driven by greater penetration among HBB customers and hence a larger network effect. Its easy-to-use features and affordable pricing (especially given incentives on offer) have also resulted in increased uptake among micro-businesses compared to traditional card-based point-of-sale (PoS) or internet banking solutions. Nearly the entire 7 percent of digital adopters have used wallets, 1 percent reported having used internet banking, while only two businesses reported using PoS mechanisms. No one had used Unified Payments Interface (UPI), given its nascence at the time of our survey.<sup>33</sup> Most trials of digital payments by HBBs were for personal use instead of business purposes.

**Figure 8: Adoption trials<sup>34</sup> - breakdown by business versus personal use**



### 3.1 Who are the digital adopters?

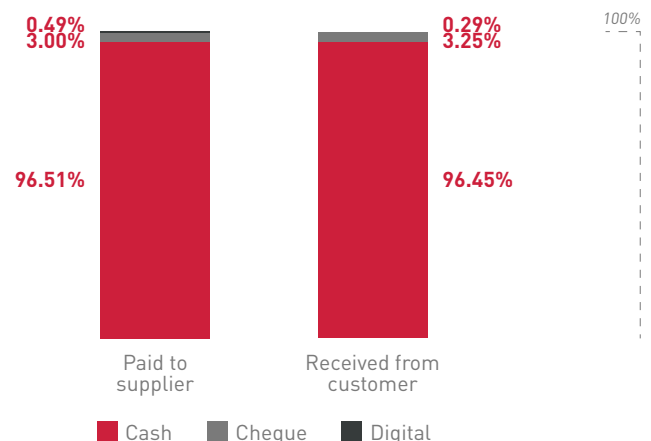
All 37 digital adopters are men, slightly younger with a median age of 38 (as compared to 42 for non-adopters), and are mostly traders. A majority has completed at least class 12 or 10. Almost all own smartphones, and most have access to the internet. Digital

adopters also tend to be more active users of their bank accounts.<sup>35</sup>

### 3.2 Digital payments to suppliers, and receipts from customers

HBBs report an average of less than 1 percent of business transaction value through digital channels. The distribution of payment channels used for supplier and customer transactions are similar. This is interesting, as one would expect supplier payments to be of higher denomination and likely to have higher penetration of non-cash payment channels, especially checks, as has been observed for more established merchants.

**Figure 9: Breakdown of usage by payment types**



In fact, over two-thirds of HBBs prefer cash for transactions above INR 10,000 while roughly only a quarter percent prefer checks for such transaction sizes. Very few consider digital options. It should be noted that these larger transaction scenarios are largely hypothetical for these smaller scale businesses. But given low existing check making behavior, there may be an opportunity for such businesses to leapfrog from cash to newer digital solutions through effective awareness campaigns, better access to digital infrastructure, and more appropriate product solutions.

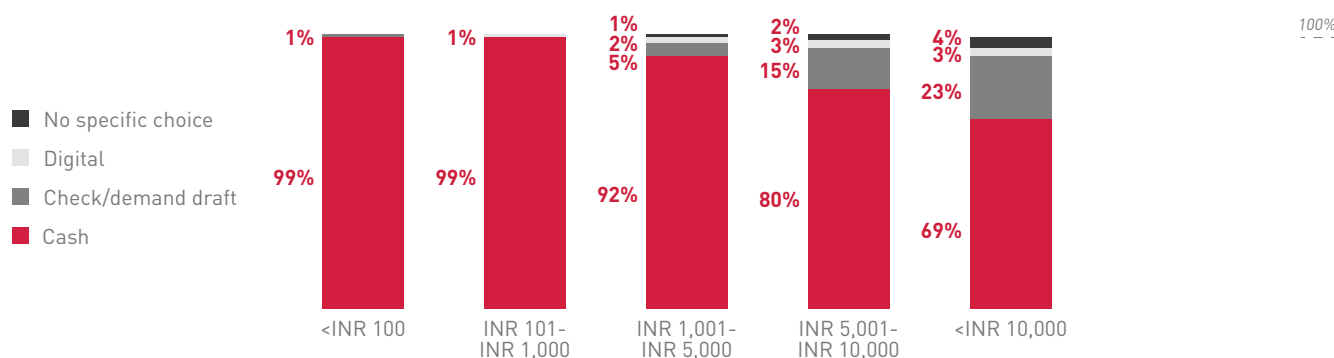
<sup>32</sup>This means that 2 percent of HBBs has at least 5 percent of the payment value transacted digitally.

<sup>33</sup>The CATALYST-PRICE survey was carried out during August 2017.

<sup>34</sup>PoS machines and UPI are not represented because PoS had only 2 responses and UPI was in its nascent stages and had no response.

<sup>35</sup>Forty-three percent of digital adopters is active bank users compared to 16 percent of non-adopters. The sample size of digital adopters is 37 while the sample size of non-adopters is 458.

Figure 10: HBBs' preference for payment types across ticket sizes<sup>36</sup>



### 3.3 Adoption triggers

At the time of the survey, demonetization of the Indian economy in November 2016 was cited as a prime motivator for digital payment adoption. Other reasons that followed included “ease of use” and “customer demand.”

### 3.4 Awareness deficits regarding digital payments

Lack of awareness is given as the reason for non-adoption by the large majority (78 percent) of respondents. This clear gap in understanding digital payments and their potential business benefits, appear to supercede other valid concerns such as trust (i.e., the fear of being cheated) and inadequate infrastructure. Unwillingness to learn, which could be a proxy for lack of trust and/or perceived value, comes next, followed by lack of customer demand. This provides an opportunity for the digital finance ecosystem to make a concerted effort to invest in building awareness and capabilities through targeted initiatives, and ensure low-income households get adequate hands-on experience in using such technologies to increase their comfort.

Figure 11: Top reasons why merchants want to adopt digital payments

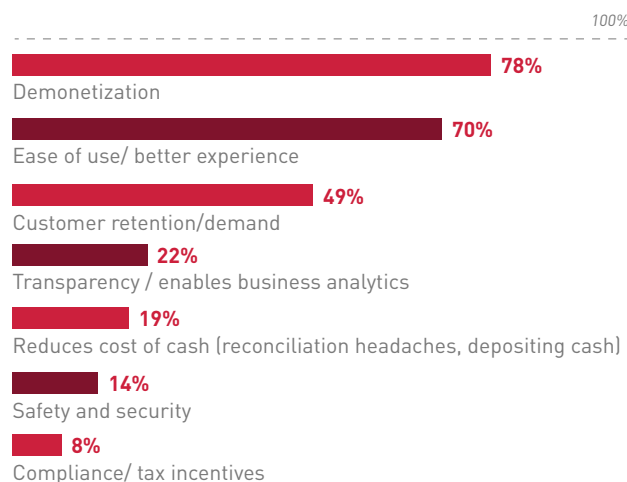
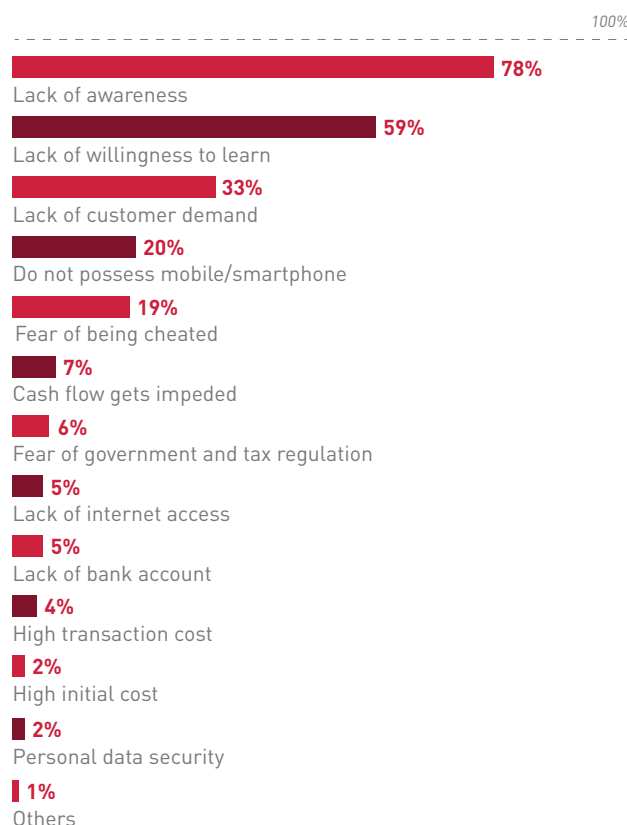


Figure 12: Top reasons why merchants do not want to adopt digital payments



<sup>36</sup>N/A responses are excluded. The digital category combines internet banking, PoS, wallets, and UPI.



## BOX 3

### GST and digital payment solutions

HBBs are largely informal enterprises with small turnovers, and only 5 percent of the HBBs sampled is mandated to pay GST and business income tax. This segment can therefore enjoy benefits of adopting digital technologies (such as proof of financial records to access credit, ease of transactions) without worries about declaring income, which is an unstated concern for merchants with larger turnovers. A little over two-thirds of the sample felt there would be no effect of GST on their businesses,<sup>37</sup> and less than 6 percent mentioned that their suppliers had expressed interest in moving to non-cash options on account of GST implementation.

### 3.5

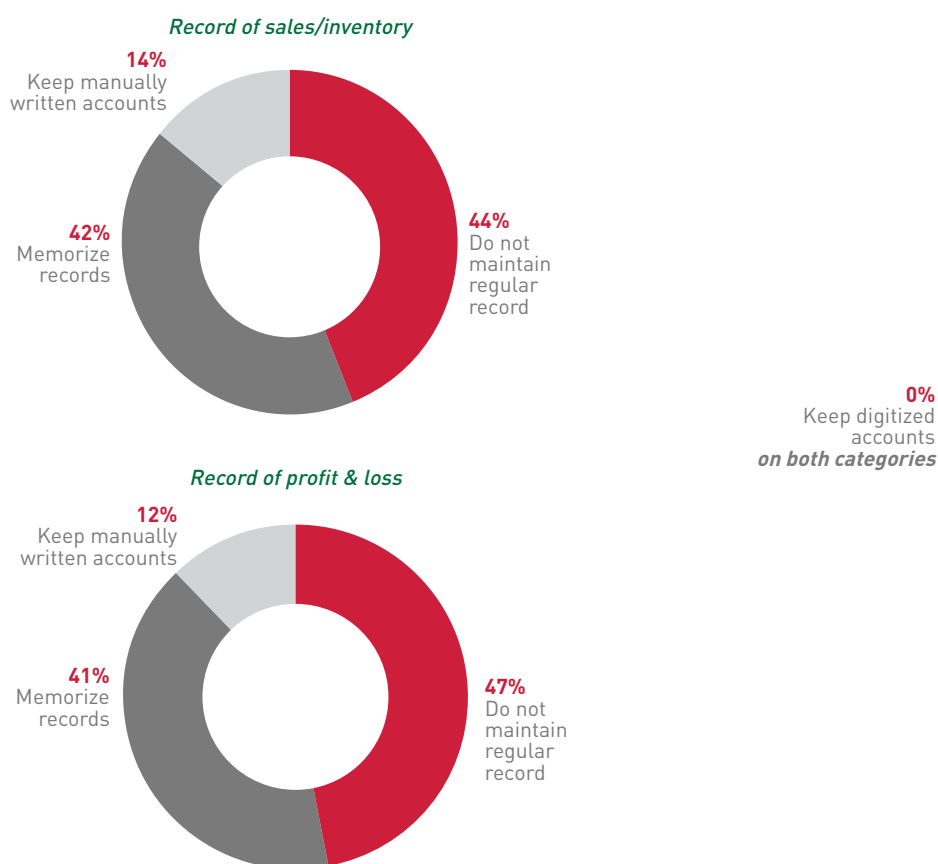
#### Low perceived cost of cash and lack of data on business performance

We found that almost all HBBs are well accustomed to operating within a cash-based ecosystem, with no reported problems related to access to loose change, leakages during accounts reconciliation, or outright theft. In effect, they do not perceive any cost associated with transacting in cash.<sup>38</sup>

However, HBBs may still stand to benefit from availing of digital-based solutions that lead to a better understanding

of their cash flows, transaction volumes, customer profiles, and other business performance insights. Very few businesses indicated they maintain records of sales/inventory, and only 12 percent reported maintaining records of profit and loss, and that too manually. Only 50 percent of the respondents was able to identify products with highest contribution towards business profits. This suggests a potential opportunity for improved business insights so that HBBs can better manage their finances, and a potential role for digital finance products for both enabling such insights as well as getting reinforced by them (e.g., more insights could lead to greater surplus income and therefore need for digital savings products).

Figure 13: HBBs and business record keeping



<sup>37</sup>A 'no effect response' is counted to be different from a 'don't know' response.

<sup>38</sup>A direct question about the perceived cost of cash yielded the response 'none' in our study; this could suggest these businesses have internalized the pain-points associated with a cash-based system due to long-standing, habitual use. It may be worthwhile for researchers to assess the cost of cash that might exist but is not perceived by HBBs. Behavioral research and product innovators, through focused studies, can identify pain-points inherent in a cash-based system so that HBBs gain from their removal.

# 4

## MAPPING BROADER BUSINESS FINANCIAL NEEDS

*By incorporating specific business nuances of HBBs, digital payments solution providers can create more value*

HBBs could be motivated to shift out of sub-optimal practices such as saving more than 70 percent of weekly cash flows at home if they could perceive the benefits of more efficient management of frequent customer transactions (especially traders), repeat customers (for trade and services categories), mismatches in cash inflows and outflows, and so on. HBBs often end up keeping cash at home — perhaps for handling liquidity and since most of their income is spent on consumption. Hence, digital solutions could play a role in their income and consumption transactions. In this section, we examine specific business operations that present structural opportunities for digital payments to add value.

## 4.1

### Transaction management and potential for new business insights

As discussed earlier, HBBs (especially in trade) have a high number of transactions, especially recurring transactions, and most do not maintain sales records. The high number of repeat customers with small ticket sizes indicates a potential need for managing small change and seamlessly tracking sales carried out on credit (e.g., digital khaatas). We find that at least a fifth of the sampled HBBs sell on credit. Digital technologies can help track such transactions and ensure better cash recovery for business owners. Recurring transactions with repeat customers offer additional opportunities to bring them along the digital journey as well as to amortize initial learning and other investments against longer customer lifetime value.

Further, without a data-driven system to generate business insights, over three-fifths of sampled HBBs identify their most valuable customers<sup>39</sup> through intuition, while less than a seventh report any use of customer and sales data. Digital solutions can play a role here, by setting up systems that facilitate convenient ways to maintain records for fast churning businesses. Such solutions can help track inventory management, customer insights, financial flows, and more information on business performance. There is evidence that HBBs value such business insights, as 55 percent of those who are able to identify their valuable customers uses that information to provide discounts, maintain personal relationships and make special requests for goods on behalf of their customers. But these business insights need to be accessed seamlessly, and in context of their specific business operations.

Given, HBBs do not necessarily ring-fence their additional household finances from businesses, there may be scope to deepen digital payment histories to

create more value, especially around integrated products that drive goal-based savings, access to small credit, and insurance-based risk protections. To be able to capture and build on these records, however, the digital ecosystem also needs to innovate on easing their transaction experience and perhaps create additional transparency between household versus business finances where little exists.

## 4.2




### Cash and liquidity management

HBBs business processes reflect gaps in the timing and levels of their customer and supplier transactions, which results in mismatched cash inflows and outflows. Customer sales made on credit as well as informal trade credit arrangements further compound liquidity issues. To manage uncertainties regarding cash availability for payments and facilitate liquidity, HBBs have to resort to sub-optimal financial practices of keeping most of their weekly cash flows in their homes.

Manufacturing and trade businesses report three supplier transactions per month, while services report one supplier transaction monthly. Nearly all (97 percent) businesses pay their suppliers at the time of delivery. On the other hand, HBBs are paid continuously through the month against their sales, with some variation in number of customer transactions by business type. HBBs also do not purchase or sell online, and the ability to transact payments remotely does not seem important for these merchants who rely on in-person transactions. This also means that they require cash in hand to make payments to suppliers and give change to customers.

**Table 3: Number of supplier and customer transactions**

(at median values)

	 <b>Manufacturing</b>	 <b>Services</b>	 <b>Trade</b>	<b>Total</b>
<b>No. of monthly suppliers</b>	3	1	3	3
<b>No. of monthly customers</b>	80	60	600	200

Twenty percent of businesses in our sample sells on credit with an average credit cycle of 15 days, while 12 percent<sup>40,41</sup> uses trade credit offered by their suppliers. With more businesses selling on credit than receiving trade credit, liquidity issues are further exacerbated. Digital solutions can help automate and streamline these flows, making business owner's lives simpler, and freeing up their time to focus on core business growth imperatives.

<sup>39</sup>Most valuable customers are defined as those who contribute the most towards sales and profits.

<sup>40</sup>Traders mostly use trade credit for short durations of 10 days. Service providers who avail trade credit can get it for a median of 30 days, while the six manufacturers who reported receiving trade credit get it for a median duration of 50 days.

<sup>41</sup>Calculations are based on the first out of three suppliers that HBBs report.

## 4.3

### Utilization of cash inflows and surplus income

Apart from liquidity concerns discussed above, there are other deterrents associated with making frequent bank deposits. It typically takes a business owner over half an hour to make a deposit, as well as incurring the additional travel and opportunity costs of visiting a bank branch. Against a typical weekly deposit amount of INR 5,000<sup>42</sup>, HBBs feel it is rational to keep the money at home, and forgo the opportunity to invest in short-duration interest yielding liquid financial products. Respondents prefer keeping cash at home for easy access, and deposit money in the bank for safe keeping.

Easy-to-use digital financial products that allow small savings for short durations with easy liquidity and no significant transactions costs (e.g., digital money market accounts) could provide an alternative to HBBs to tap better returns on their cash that otherwise sits at home/store.

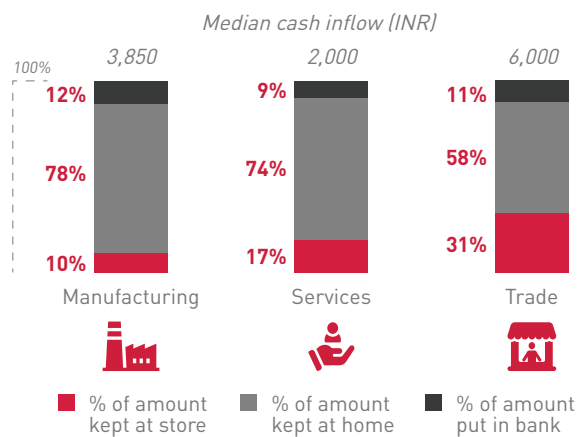
## 4.4

### Unfulfilled demand for credit

While only 4 percent of the respondents had outstanding loans at the time of the survey, a third expressed an explicit need for credit.<sup>43</sup> Over a fifth of these businesses, have not applied for credit or have applied but been rejected, which suggests potential gaps in information about how to access credit, as well as issues with providing reliable data on cash flows. Given our earlier discussion on payment and receipts misalignment faced by these businesses, the credit needs are also likely to be understated, and the value from short duration working capital finance can be large.

This provides a clear opportunity for transaction histories and broader business data to assist in designing easier-to-avail loans for various business owner needs including working capital, business expansion, or even household consumption. Today, the majority of respondents with current outstanding loans are serviced by a Microfinance Institution (MFI) with monthly repayments made in cash. The engagement of larger banks with this group appears minimal. Alternative financiers and digital data based lending operations can play a role here to connect larger balance sheets to micro segment needs. Moreover, HBBs operate from a fixed location which carries lower repayment risk for lenders compared to other informal sellers.

**Figure 14: HBBs prefer to keep weekly cash inflows at home or store**



<sup>42</sup>To get a sense of volumes, traders report weekly cash inflows of INR 6,000, manufacturers INR 3,850, and services INR 2,000. Roughly, a 10<sup>th</sup> of this cash is deposited in the bank today.

<sup>43</sup>The need for credit is calculated by combining those who responded that they had wanted credit but never applied, those who applied and were rejected, and those who have repaid previous loans.





# 5

## GAUGING DIGITAL FINANCIAL READINESS

*HBBs show sophisticated savings and investment behaviors for their scale; this offers an opportunity to bring them into the digital finance fold provided infrastructure deficits can be addressed*

We define 'digitally ready' businesses as ones that (i) own bank accounts they use, (ii) invest in devices and/or form factors such as mobile phones with data access, and (iii) show softer digital as well as financial capabilities through broader use of digital products and traditional financial and banking products.

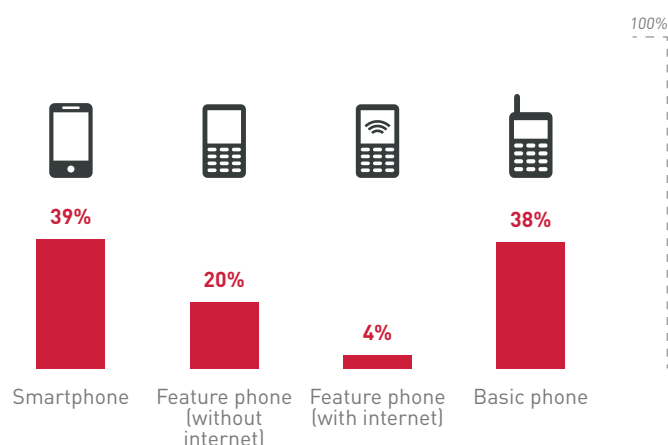
People require bank accounts to support interoperable digital payments (e.g., cards, UPI, etc.) as well as broader digital finance solutions such as digital credit or micro-insurance. Although we find universal bank account ownership — almost 96 percent of HBBs have bank accounts — there is little regular use. Nearly 65 percent of HBBs own debit cards.<sup>44</sup>

Connected device ownership is low: 97 percent of HBBs report having at least one mobile phone in the house, and 72 percent report having a phone for business purposes. Of this 72 percent, only 39 percent has smartphones, and another 4 percent owns feature phones that are internet-enabled. Also, only 27 percent of HBBs has access to the internet at home, virtually all through data packs using their smartphones. Not unexpectedly, within the small group of digital adopters, we observe a 97 percent ownership of smartphones, and a higher access to the internet.

Despite gaps in connectivity, there seems to be broader use of mobile phones, especially for communications and business related activities.

Engagement with traditional banking products and financial habits that indicate some degree of financial capability are initial steps towards adoption of digital financial products. One-fifth of HBBs report using<sup>45</sup> their bank accounts actively; 14 percent is active depositors and 8 percent active withdrawers. However, while intensity of usage is low, we have seen sophisticated savings behavior, including some diversification across cash, bank savings accounts, mutual funds and insurance products.

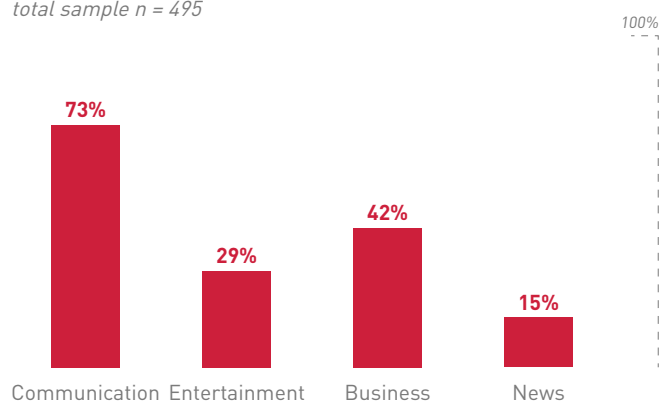
**Figure 15: Type of phone owned by HBBs for business purposes**



**Figure 16: Use of mobile phone**

*Using mobile phone for*

total sample n = 495



<sup>44</sup>On-boarding for UPI requires a debit card thus debit card owners are well-positioned to participate digitally through UPI and HBBs as consumer households could use a shift to greater debit card use if PoS penetration widens.

<sup>45</sup>We define 'active bank user' as a person who reports depositing or withdrawing cash from a bank during a one-month period.



# 6

## PERCEPTIONS OF DIGITAL PAYMENTS

*The majority of HBBs do not perceive digital payments as having stand-alone utility for their businesses; concerted awareness-building measures emphasizing their link to deeper finance could overcome this mindset*



**Figure 17: Will digital be beneficial for business health?**

In addition to digital infrastructure readiness and demonstrated ability to engage with financial and digital instruments, perceptions and biases can play an important role in adoption and use of digital technologies. Prima facie, the majority of HBBs in our sample perceives little value in the application of digital payments to their businesses. But this might stem from preconceived biases, many of which are justified given the fast evolving and confusing to navigate solution landscape, and lack of knowledge on how digital payments might benefit their businesses and longer term financial standing.

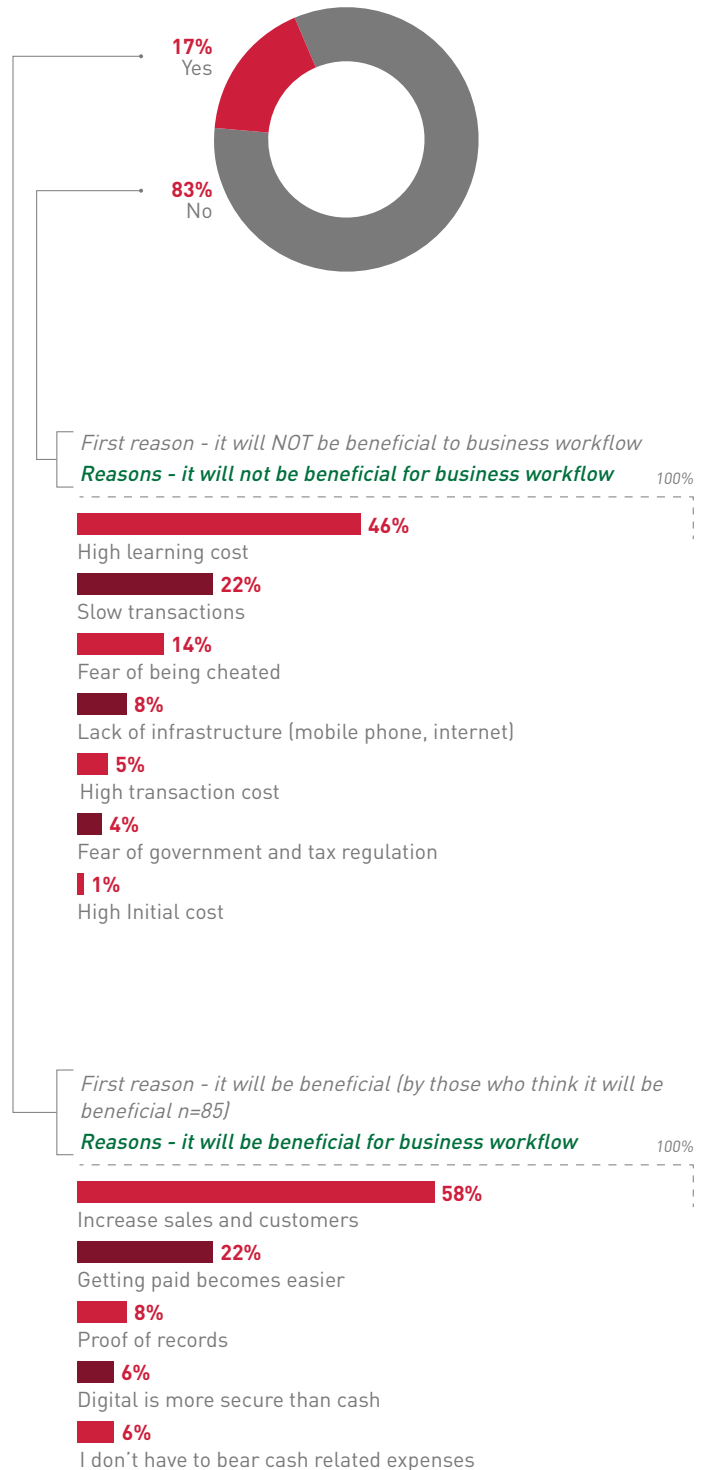
Most HBBs do not expect digital payments to be beneficial to them. Nearly 83 percent do not expect digital payments to improve business health because of high learning costs (40 percent), slow transactions (20 percent) and fear of being cheated (12 percent).

The small subset (17 percent) of HBBs that sees value in digital payments cites its potential to expand their business through more sales (44 percent) and new customers (13 percent), as well as getting paid faster (21 percent).

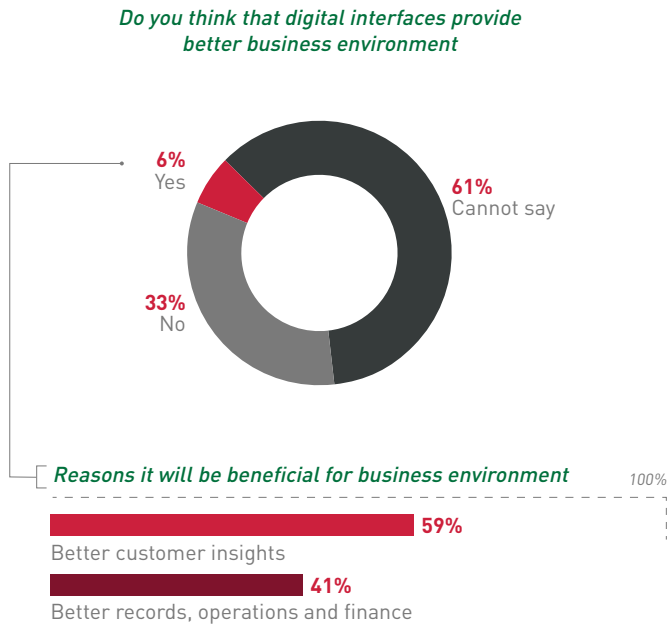
We see that the lack of infrastructure and transaction cost feature low in reasons for non-adoption. It is possible that other barriers of awareness on how the technology works, its reliability and how it meets their requirements need to be tackled first before moving towards getting the necessary tools to operate digitally.

Specifically, when asked if digital payments would be beneficial for their business processes, 61 percent of the sample responded with an 'unsure' rather than an outright 'no.' This suggests that there is room for building awareness and trust about digital options, their application to businesses, and demonstrate tangible benefits to change mindsets. About 6 percent HBBs do think that digital options will be beneficial, primarily in gaining insights into the behavior of valuable customers.

*Do you see the digital payment systems as beneficial to your business workflow?*



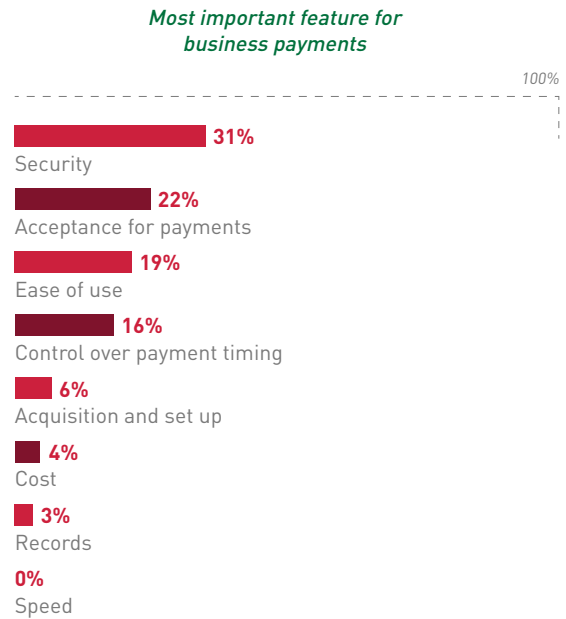
**Figure 18: Will digital be beneficial for business processes?**



When asked to rank individual features of digital payment solutions, HBBs appear to prioritize security, acceptance of different payment types, ease of use, and control over payment timings.

Indicatively, triggers like digital supplier collections, targeted customer discounts, access to credit based on payment histories, and zero trial cost business models can each influence digital acceptance behavior for about a fifth of our sample, whereas roughly another quarter to a third appear to be 'on the fence.' These may be potentially interesting propositions for solution providers to experiment with.

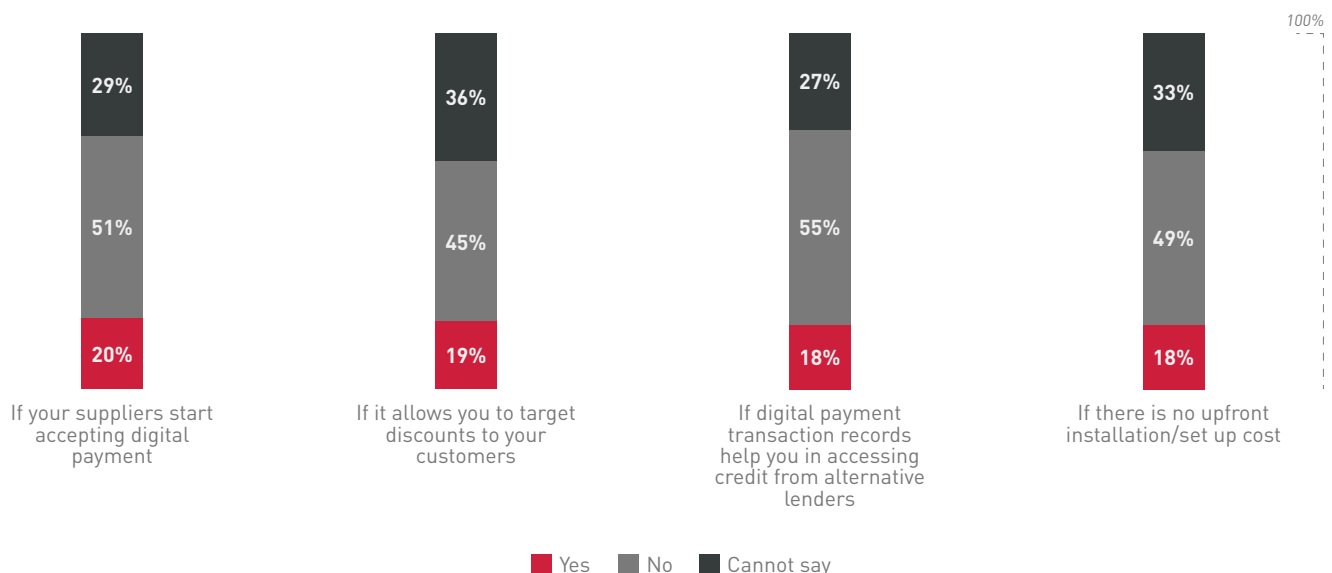
**Figure 19: Key features of payment options that HBBs prefer**



HBBs appear to be very price sensitive and quite unwilling to pay the transaction fee. For a ticket size of INR 100, 90 percent of HBBs were unwilling to pay any fees in lieu of benefits of transacting digitally; whereas for a ticket size of INR 10,000, 86 percent of HBBs were unwilling to pay any fees. This is not surprising given their mindsets are grounded in the current scale and economics of their hand-to-mouth businesses. When engaged with solutions that can demonstrate value to their business, their appetite to pay could well change.

**Figure 20: Scenarios in which HBBs would consider adopting digital solutions**

*Will you go digital if... [only asked to those who have not used any form of digital, i.e., 37 exclusive, and 458 respondents]*





# 7

## CREATING PATHWAYS TO USE DIGITAL PAYMENTS FOR DEEPER FINANCIAL INCLUSION

*The task for ecosystem players is to win mindsets through an integrated approach combining innovative products that address deep business financial needs and building capabilities to use those products*



What is evident from the previous sections of this report is that there are real opportunities for HBBs to use financial products to stabilize and grow their businesses, but that realizing these requires more imaginatively tailored solutions as well as addressing capability and possibly infrastructure gaps. These businesses are uniquely characterized by high velocity of transactions, a large share of repeat and local customers with whom business owners share trust-based relationships, low ticket sizes, and unclear boundaries between business and household finance. Further, while these businesses aspire to grow, they operate below their potential and can be improved by applying relatively simple business tools and strategies (e.g., record keeping for transparency and insights, mobile marketing, more delegation of roles, etc.). As a starting point, digitizing the rich graph of HBB transactions can create records that further help give them access to affordable deeper solutions such as credit, investments, pension and insurance.

However, there are several obstacles to HBBs' participation in the digital payments ecosystem. On the supply side, available digital payments (and broader financial) products do not address the specific needs of these microbusinesses engaged in hundreds of micro-transactions. On the demand side, HBB owners belong to low-income demographics with low educational achievements, and face limitations in understanding how digital solutions can enhance and add long-term value to their businesses.

According to our study, only 2 percent of HBBs show sustained use of digital payments solutions, and these are mostly wallets. In order to organically include them into a rapidly evolving digital payments landscape, it becomes imperative for innovators and product developers to develop new solutions, and donors and governments to promote use of appropriate solutions through capacity building efforts. Our study is the first of its kind and throws up broad insights that only point to the need for more in-depth, granular research into the behaviors of these long tail micro and nano enterprises in urban but also rural domains.

## 7.1

### Develop digital solutions to fit HBB owners' requirements

**H**BBs may have low digital adoption rates but virtually every household does own at least one mobile phone, with 75 percent using them for business. Further, smartphones are owned by 13 percent of female owners and 43 percent of male owners, and access to data remains a concern. With decreasing costs of smartphones and data packages, penetration of connected devices will grow

and become increasingly accessible to this segment. In other words, infrastructure is more or less within reach to support new digital solutions, including modern payment solutions which inevitably use smartphones as acceptance devices. However, solutions need to evolve to offer both functionalities as well as interfaces that are compatible with the business and cultural context of these new customer segments.

First, payment solutions with business models that support the economics of micro transactions are essential. This may imply creative monetization strategies that seek revenues based on 'gain share' models, which seek payments from customers only once they realize their gains, thereby mitigating purchase risks, or alternative models that source revenues from third parties that can benefit from payments data-based insights or new distribution channels. Graduated payment strategies where monetization is directly proportional to level and intensity of use can also work. The bottom line is that solution providers will need to innovate and experiment heavily with different business models to arrive at ones that work.

Second, solutions that directly link digital payments to business value are likely to get most traction from aspiring business owners. Here, it may be important to understand that while getting paid faster, more securely, and with proof-of-record is beneficial in itself, greater value is likely to be derived from broader workflows including new business intelligence as well as deeper access to financial services (discussed in detail in the next section). Business insights could be in the form of new levels of business transparency with actionable insights on how to segment and prioritize customers, leverage patterns to determine when to sell them what, in what combination, etc., as well as value calculators that show them how their business is improving or has potential to improve (say vis-à-vis other similar businesses). Clarifying pathways from digital payments to deeper financial services even if not immediately offered could also help with solution uptake.

Third, it would also be important to ensure that these solutions have simpler-to-use and faster interfaces and intuitive user experiences. This calls for more visual cues through well understood graphics, oral and text-to-speech interfaces, dynamic communication that collects feedback to make services more relevant over time, and possibly even manual handholding in certain contexts. First time user experiences will be critical as successful initial trials often drive repeat usage. To solve for infrastructure deficits observed in these target communities, innovators may want to leverage available technologies that support non-smartphone based solutions (perhaps with an explicitly inbuilt upgradation journey to a smartphone), shared phone access with multiple user roles and permissions, and conditions with intermittent connectivity.

## 7.2

### Integrate digital payments with deeper financial inclusion

**H**BBs have need for both short and long term credit to stabilize and grow their businesses. Limited access to traditional credit combined with rich transaction histories that can demonstrate an ability as well as willingness to repay loans suggest digital payments can be an enabler for these microbusinesses to access new forms of affordable financing. By virtue of their fixed, traceable locations, HBBs also pose a lower risk of repayment and are relatively attractive candidates for lenders (versus, for example, roving merchants).

Payment solution providers can innovate in ways that simplify and speed up transaction experiences to increase the volume of payments accepted digitally, create a proof-of-record that can be downloaded and securely shared with third party digital lenders, and also offer these lenders a mechanism to tap digital inflows for loan collections. Their digital channels could also serve as low-cost ways to onboard customers, potentially foreclosing the need for expensive paperwork.

Digital payment solution platforms could especially help connect microbusinesses to the balance sheets of established banks and traditional financial institutions, which are not only able to offer significantly lower interest rates (compared to most MFIs and NBFCs) but are also more trusted by these customer segments. Till date, formal financial institutions have had limited engagement with microbusiness given the challenging economics of serving them. By offering aggregated pools through digital, data-rich channels, payment platforms can make these new segments viable for banks to serve.

While our study did not focus on this, HBBs are hand-to-mouth operations that tend to be vulnerable to uncontrollable financial shocks (e.g., health related crises) and may find value in insurance-based solutions that can protect against such risks. Through similar logic as in the case of credit, payment platforms can provide effective context and channels for traditional insurance providers, or enter into cross-selling partnerships with a recently emerging wave of inclusive micro-insurance providers.

Digital payment solutions can also support greater savings and investments, which our study suggests is a potential source of wealth creation for HBBs given existing

suboptimal behaviors due to lack of alternatives. Payment inflows, for example, can provide the right context for small savings – for example, when businesses (or households for that matter) receive income, they can be more successfully nudged to save against certain predefined goals. Also, even small amounts of digitally stored money can be stashed away in interest generating accounts more cost-effectively than physical money, which requires a visit to the bank. On the back-end, depository institutions and new digital micro-asset managers can design appropriate solutions that support small ticket, liquid, interest generating accounts that address the needs of HBBs, and use payment companies as intermediaries to reach these new segments.

## 7.3

### Build capabilities to improve financial management and digital uptake

**H**BB owners appear to use intuition rather than hard facts to operate their businesses. Lower educational achievement and financial awareness seem to be factors impeding their adoption of digital payments, and ultimately exclusion from the digital financial ecosystem. And this only becomes more salient in a complex, rapidly evolving financial solution landscape.

Capabilities need to be built in a way that they are relevant to existing solutions, and extend beyond just creating awareness of financial needs to understanding of available solutions and their benefits, and then closing the loop by building trust and confidence in using products on a sustained basis. Ideally, solution providers should design their products in a manner to support such a customer journey.

New and fresh approaches are also needed to engage customers to want to learn and use new digital finance tools. These can rely on new technologies that utilize gamification, personalization, and machine learning for greater impact.

There is also a case for enablers of digital financial inclusion, especially policymakers, regulators and funders, to promote awareness and capability building programs. This could take the form of targeted campaigns on the benefits of digital payments, incentives to microbusinesses to experience such products or to solution providers to quickly deploy them, or clarifying effective performance standards and grievance redressal processes to deepen trust.









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H-5, Second Floor, Green Park Extension, New Delhi - 110016  
011-49096529 | [info@cashlesscatalyst.org](mailto:info@cashlesscatalyst.org) | [www.cashlesscatalyst.org](http://www.cashlesscatalyst.org)