



Inclusive Cashless
Payment Partnership

in partnership with



MAPPING THE MERCHANT'S MIND

AN ANALYSIS OF DIGITAL PAYMENT
BEHAVIORS BY FIXED STORE
MERCHANTS IN JAIPUR

Principal Investigators: Badal Malick and Rajesh Shukla
Co-Investigators: Megha Shree and Vaisnavi Gnanasekaran
Supporting Research Team: Pratibha Joshi and Harsh Nisar
Design: Allan Macdonald





About Catalyst

Catalyst is a user-centric 'digital finance innovation platform' for the underserved last mile. The initiative is funded by USAID under the mSTAR Program, through funding provided to FHI 360. Housed within 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". Our 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 we aim at enabling evidence-led policy formulation, regulatory response and business decisions.

Acknowledgements: The authors would like to thank and acknowledge the support of Shailendra Dubey, Ashwini Joshi, Pooja Sharma, and Ankur Gautam for work on survey data collection, data analytics and reviews. Special thanks to Josh Woodard and Jaheed Parvez (FHI 360), Ashish Aggarwal (NIPFP) for editorial reviews and feedback, Sharon Buteau for her consistent support and encouragement, and to Pink Lemonade for their contribution in the design of the report.



CONTENTS

	Executive summary	7
	Introduction	9
	Methodology	10
1	Promise of growth in diversity	12
1.1	Uncertain future yet hungry for growth	13
1.2	Understanding fixed store merchants	14
1.2.1	Business profiles	14
1.2.2	Transaction context	15
	Snapshot of merchant categories	17
2	Transitioning from adoption to use	20
2.1	Driving trialability	21
2.2	Usage patterns and drivers	24
3	Turning non-users into users	28
3.1	Digital financial readiness	29
3.2	Trials and pathways to customer expansion	31
3.3	Digital as last among equals	34
3.4	Ranking users' experience of digital vis-a-vis cash	34
3.5	Evaluating the cost of cash	35
4	So what will it take?	36
4.1	Revamp business models by reducing upfront 'trial' cost	37
4.2	Embed value added services linked to business value: analytics, loyalty and personalization	37
4.3	Use credit as a hook	37
4.4	Focus on merchants with a collections problem	38
4.5	Access merchant ecosystems through supply chains	38
4.6	Create public access to the internet	38
4.7	Promote digital financial capabilities	39
4.8	Build preference for digital across all transaction sizes	39
	An FSM case study	42

LIST OF TABLES

Fig 1:	The entrepreneurial zeal of small merchants	13
Fig 2:	Gazing into the future	13
Fig 3:	Merchant profiles	14
Fig 4:	Understanding merchant transaction graphs	15
Fig 5:	Adoption and trial patterns	21
Fig 6:	Breakdown of usage by payment mode (All 1003 users)	22
Fig 7:	Perceived barriers and motivators for adoption	23
Fig 8:	The usage funnel	24
Fig 9:	Factors for digital usage	26
Fig 10:	Digital financial readiness	29
Fig 11:	Will digital payments boost my business?	31
Fig 12:	Will digital payments improve my operations?	32
Fig 13:	A low willingness to pay	33
Fig 14:	Merchant preference for payment types across ticket sizes	34
Fig 15:	User ratings of digital payment types vs. cash	35
Fig 16:	Potential hooks for non-users of digital payments	38
Fig 17:	Can digital payments make GST compliance easier?	40
Fig 18:	Businesses mandated to pay GST	40
Fig 19:	Perceptions of impact of GST	41



EXECUTIVE SUMMARY

The outlook for digital payments in India is promising, which bodes well for broader financial inclusion through digital channels. Significant shifts have occurred in the policy & regulatory landscape as well as public infrastructure creation to enable a push from cash to digital. These changes have resulted in the opening of hundreds of millions of new bank accounts; an open API platform that supports paperless, presenceless and cashless transactions at scale; and new cohorts of small finance & payment banks with greater agility to drive banking & finance for underserved segments. At the same time, disruptive innovation in the private sector has galvanized a fast emerging fintech sector (enabled by open APIs), deeper smartphone penetration, and precipitous reductions in data costs. While this confluence of government and industry initiatives has led to a distinct rise in non-cash payments, this increase has so far been largely confined to certain new technologies and use cases.¹ Overall, only 8% of total personal consumption expenditures and 26% of Micro Small and Medium Enterprises (MSMEs) to supplier payments are estimated as non-cash.² A year and a half post demonetization, only about 5% of India's ~60 million MSMEs own digital acceptance devices.³

As a critical node between retail consumers and suppliers, small businesses are a necessary catalyst for digital transformation across the broader commercial value chain. Here it's important to recognize that 99% of these businesses represent "micro" or "nano" categories⁴, 86% are informal, and 14% are women led.⁵ These long tail businesses stand much to gain from expanded digital transaction footprints, which can increase their access to emerging digital financial services ranging from credit to investment to insurance. Conversely, digital footprints enable fintech providers to acquire and service these businesses more cost-effectively as well as tailor products to their specific needs. As frameworks for data privacy and broader customer protection evolve, these propositions are likely to become stronger and more sustainable, and ultimately generate massive socio-economic impact in the

form of greater financial stability and economic growth in this segment. A McKinsey study estimates a potential of adding USD 700 billion to India's GDP from digital financial services.⁶

This report by CATALYST and People Research on India's Consumer Economy (PRICE) provides a deeper context on small business profiles, infrastructure, needs, behaviors, and perceptions. The hope is that such demand-side perspectives can better inform designers of interventions to increase uptake and usage of digital transactions. The following study focuses on small merchants with fixed establishments, which tend to be significantly more educated, economically empowered, and with greater access to digital infrastructure, compared to other longer tail merchant categories.⁷

From our survey conducted in Jaipur during mid 2017, we find that over two-fifths of these 'fixed store' merchants have tried some form of digital payments. Only about a third, report sustained use, which is limited to a fraction of overall transaction volumes. Closed loop wallets are by far the most popular solution chosen by three-fourths of the user base, whereas a little less than a third utilize cards, and a quarter use internet banking. Only 2% utilize all three. Of users, virtually all apply these solutions to business use. The survey also finds a distinct preference for cheques for larger transactions, while cash dominates for small ticket sizes. Lack of customer demand, low awareness and lack of trust are top cited reasons for non-adoption of digital payments by merchants.

When analyzing drivers of usage, we find that younger and more educated merchants are more likely to use digital services. Also, certain retail categories (e.g., apparel & footwear, homeware & hardware) as well as wholesalers show greater demand for digital payments. Business and transaction economics also play a role with larger turnover and transaction size show greater propensity of use. Interestingly, we don't see much correlation between reported business margins and digital payment usage.

¹According to the RBI, during fiscal year 2017-18, retail digital payments in India (i.e., cards, PPI, NEFT, IMPS) saw a 46% and 42% increase in volume and value, respectively. The same figures for fiscal year 2016-17 were 70% and 53%, respectively. According to NPCI data, during fiscal year 2017-18 alone, UPI monthly volumes and value have grown 25x and 10x, respectively.

²India's Digital Future, Morgan Stanley Research, Oct 2017. Cash vs. Electronic Payments in Small Retailing, World Bank Group 2016.

³According to the RBI, in March 2018 there were approximately 2.6M POS acceptance terminals for 780M debit cards.

⁴Annual Report (2017-18) of the Ministry of MSME, Govt. of India. According to the World Bank, nano enterprises require financing to the tune of Rs 1- 5 lakhs with annual business turnover of Rs 10-15 lakhs, whereas micro enterprises require Rs 5-15 lakhs of financing and show turnover of Rs 15-50 lakhs. <http://documents.worldbank.org/curated/en/894971512356444755/pdf/India-Tamil-Nadu-Rural-Transformation-PAD1951-PAD-11102017.pdf>

⁵Ministry of MSME website.

⁶Digital finance for all: Powering inclusive growth in emerging economies, McKinsey Global Institute 2016

⁷Fixed Store Merchants constitute one of four small business segments covered by the survey. Other segments include street vendors & roving merchants, individual service providers, and home based businesses.

Our study shows a promising potential to convert more digital payment non users to users. Fixed store merchants irrespective of usage are active bankers. However, there are significant differences between users and non-users in terms of smartphone penetration and access to internet. In addition to an infrastructure gap, there seems to be a large perceptions gap as a far greater proportion of users perceive digital payment solutions to be beneficial to their business economics and process operations. Interestingly, benefits are linked to potential increases in sales potential versus cost efficiencies. Overall, merchants indicate low willingness to pay transaction fees and associate limited perceived net value with digital payments in their current form.

Across the board, there is overwhelming hunger for growth expressed by small merchants across different format types, industry categories and business profiles, as well as across users and non-users. However, despite this, there is a looming anxiety about the future especially triggered by recent economic disruptions, such as GST reform and demonetisation. While these may be short-term, transient perceptions, it beckons policymakers and implementers to invest in both short and long term mechanisms to enable small merchants to realize their aspirations, and play a pivotal role in India's economic growth story.

Two additional insights are worth highlighting. The first has to do with the importance of different commercial and transactional features across different types of small merchants, these include differences in scope, size and formality; those with fixed establishments versus others who are mobile or operate from their residences; those who sell products versus services; those who ply wholesale versus retail trade; etc. This complex heterogeneity is critical to designing the right solutions that will resonate with users and ultimately gain traction. Even among fixed store merchants, there is significant variation in number of customer and supplier transactions, timing of delivery

versus payment, average transaction size, customer profiles and repeats, business turnover and margins, all of which have implication for the type of solution, price point, and experience needed. There is really no 'one size fits all'.

Second, the need for digital payment solutions to drive value is paramount, and often requires a broader focus beyond just the payment transaction. Integrated workflows that combine payments with better customer record management, invoicing and reconciliation efficiencies, less onerous tax compliance, or access to credit and other financial services can be offer tangible value to merchants. There also is a need to instill trust and usage capabilities among new-to-digital users. This requires intuitive interfaces and channels through which small merchants can gain awareness, understanding and help navigate a complex product landscape.

Finally, the study underscores multiple strategies that can be adopted by practitioners in this space. Solution providers can better target early adopter merchants (including those that derive more immediate value from digital payments) as well as integrate more valuable services into their platforms to tilt the scales in favor of digital. New business models that eliminate or reduce upfront costs, thereby impediments for trial, and instead monetize through other services with higher perceived value could prove effective. Governments and policymakers would do well to create infrastructure for digital access through public subsidies or innovative financing models, as well as invest in intuitive platforms that can help new-to-digital users build capabilities to use and trust new digital finance technologies. They could also further research behavioral incentives linked to tax breaks, or enable the private sector to leverage public data to design these. The next decade is certain to be a watershed moment for Indian digital finance. Understanding and integrating these granular demand-side perspectives could prove key to ensuring the impact of this change reaches the last mile.

INTRODUCTION

The growing emphasis on the shift from cash to digital transactions poses a huge opportunity as well as a challenge for key stakeholders in India.

The participation of MSME will be the pivotal factor for such a transformation. Currently, MSMEs contribute to 38% of national GDP and employ approximately about 110 million.⁸ These businesses, an overwhelming majority of which are microenterprises, represent a critical node in India's commercial ecosystem. They are the links between supply chains and retail consumers. In this light, a growing emphasis on strategies to move small merchants from cash to digital, and to empower them as broader agents of change, is much needed. This will drive broader ecosystem level change, create new operational efficiencies, and expand access to broader financial services. This in turn will herald financial stability and economic prosperity for small businesses. The challenge, however, has been to find a right behavioral framework driven by tangible and immediate business value, transactional efficiencies, as well as a smooth process of transition to drive massive adoption of digital payments by consumers and merchants.

Robust and well substantiated insights, both quantitative and qualitative, that delve into the merchant's mind and worldview, are scarce. Recent ground level experience with merchants suggests an entrenched preference for cash and limited perceived benefits from digital payment solutions available in the market today. As a result, there has been little motivation to invest in such platforms, especially when keeping certain transitional costs in mind. While the net benefits of adopting are bound to grow as digital payment networks expand and technological systems mature, there are low hanging opportunities for product, business model and behavioral innovations to accelerate this transition. To generate effective strategies that can take root in real markets and in day-to-day transactions, it is important to understand what drives these merchants and what defines their choices or aspirations, besides figuring out infrastructural challenges they face.

This report is particularly timely and relevant. Current baselines for small merchant payment digitization in India remain low despite a surge immediately after

demonetization. The main highlights of the current scenario are:

- Nearly 75% of respondents from India (vs 25% in China) cited preference for cash as mode of payment.⁹
- Roughly 68% of MSMEs are completely offline and operate through traditional tools and methods.¹⁰
- Only 8% of overall consumers-to-business payments are electronic versus 42% in China.¹¹
- In addition, only 26% of MSME supplier payments are non-cash in South Asia compared to 31% in Sub-Saharan Africa.¹²

While there have been tectonic shifts on the dimensions in terms of enabling policy as well as publicly available infrastructure, this has yet to catalyze last mile transactions at scale. From Jan Dhan account creation to large-scale Aadhaar seeding to increasing access to low-cost smartphones to drastic reductions in data costs to technology providers like Google and WhatsApp integrating payments into their widely used platforms, there is every reason to believe that widespread digital transformation is right around the corner. The need of the hour is a demand-centered approach to delivering new digital propositions to small businesses. This report hopes to offer one step in this direction.

The survey data presented in this report, reveals considerable heterogeneity across business models, education levels, ages, access to digital infrastructure, as well as in adoption, usage, preferences and perceptions about digital finance solutions.

Section 1 provides a description of the 'fixed store' merchant landscape we surveyed. Section 2 examines digital adopters and sustained users along with potential drivers. Section 3 highlights possible opportunities to transform non-users, including an analysis of their digital readiness and perceptions on digital payment solutions. Section 4 concludes with actionable recommendations for innovators, policymakers and facilitators to coordinate efforts to drive forward an effective and scalable merchant digital payments agenda.

⁸Annual Report 2017-18 Ministry of Micro Small and Medium enterprises

⁹Digital Payments: Thinking beyond transactions, Paypal & Blackbox Research

¹⁰Impact of internet and digitisation on SMBs in India, KPMG & Google 2017

¹¹India's Digital Future, Morgan Stanley Research, Oct 2017.

¹²Cash vs Electronic payments in Small Retailing, World Bank Group 2016

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 (which comprises 9.7% of establishments in Rajasthan¹³), we believe it has fundamental relevance to small merchants across the country, and particularly in tier II urban clusters.

A baseline survey for broader impact assessment study commissioned by Catalyst and conducted by PRICE¹⁴ was completed in September 2017. The survey covered 6000+ fixed store merchants and 12000+ households in the listing exercise followed by a more detailed survey of 1308 fixed store merchants¹⁵, 309 Street vendors, 402 Individual service provider, and 495 Home based business. 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. Merchants with less than Rs. 10 lakhs in annual turnover were targeted

For the purpose of the main survey, a two- staged stratified random sampling has been adopted to generate representative sample for fixed stores.¹⁶ A digital score based on indicators namely annual turnover, access to internet, usage of computer, laptop, landline and mobile for business, type of phone, bank account, type of loan and usage of digital payment formed the first stage of selection. Primary activity status (classified on the basis of the top five primary activity types) formed the second stage of selection.

One-sixth was extracted from a matrix of 6011 fixed store into 24 strata on the basis of digital scores (quartiles) and 6 primary activity status categories. A booster sample of 150 each of E-mitras and Dairy Booths was added to the fixed store sample, though these have not been included in any representative analysis.

A quantitative survey with a structured questionnaire was then administered to the sample, piloted before roll-out and refined to make it pragmatic. The topics covered in the questionnaire collect data on merchant demographics, their business operations and transaction information, their banking and payment habits, 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 majority of the analysis, correlations and regression of scale data was used to analyse patterns. These tasks were performed using Stata® and Python™ by trained and experienced data analysts. Qualitative insights based on in-person interviews with merchants are used to substantiate arguments and provide in-depth understanding of certain aspects.

What follows is part of a broader study based on a statistically significant sample encompassing fixed establishment merchants, street vendors, individual service providers, and home-based businesses.

¹³According to Sixth Economic Census. Also establishment is defined as entities engaged in production and/ or distribution of goods and services, not for the purpose of sole consumption.

¹⁴PRICE is an independent, not-for-profit research centre 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".

¹⁵Inclusive of the booster sample of 150 E-Mitra centres and 150 Dairy booths.

¹⁶Individual Service Providers, Home-based Businesses and Street Vendor samples are purposive and logically assumed to be representative.



The background is a solid red color with a pattern of thin, parallel white lines. The lines are arranged in a series of overlapping, slightly curved bands that create a sense of depth and movement, resembling a staircase or a series of steps. The lines are most prominent in the lower right quadrant and become more sparse towards the top left.

1

PROMISE OF GROWTH IN DIVERSITY

1.1

Uncertain future yet hungry for growth

Despite the rise of organized retail and e-commerce, the small entrepreneur continues to soldier on. Nearly 86% of fixed store merchants we sampled expressed an appetite for growth through new customer acquisition and increased sales. This is not surprising given that two thirds of the merchants have set up their own businesses versus having inherited it, and therefore perhaps feel a greater sense of ownership. This entrepreneurial zeal can be tapped to transform this sector, especially by driving value and efficiencies through the use of digital technologies. Less than 1% of merchants however feel that “adoption of digital payments” can be a direct strategy to grow their businesses. Creating awareness about technology as an enabler of business growth, better economics, greater financial stability, and easier operations would be critical to increased uptake.

Fig 1: The entrepreneurial zeal of small merchants

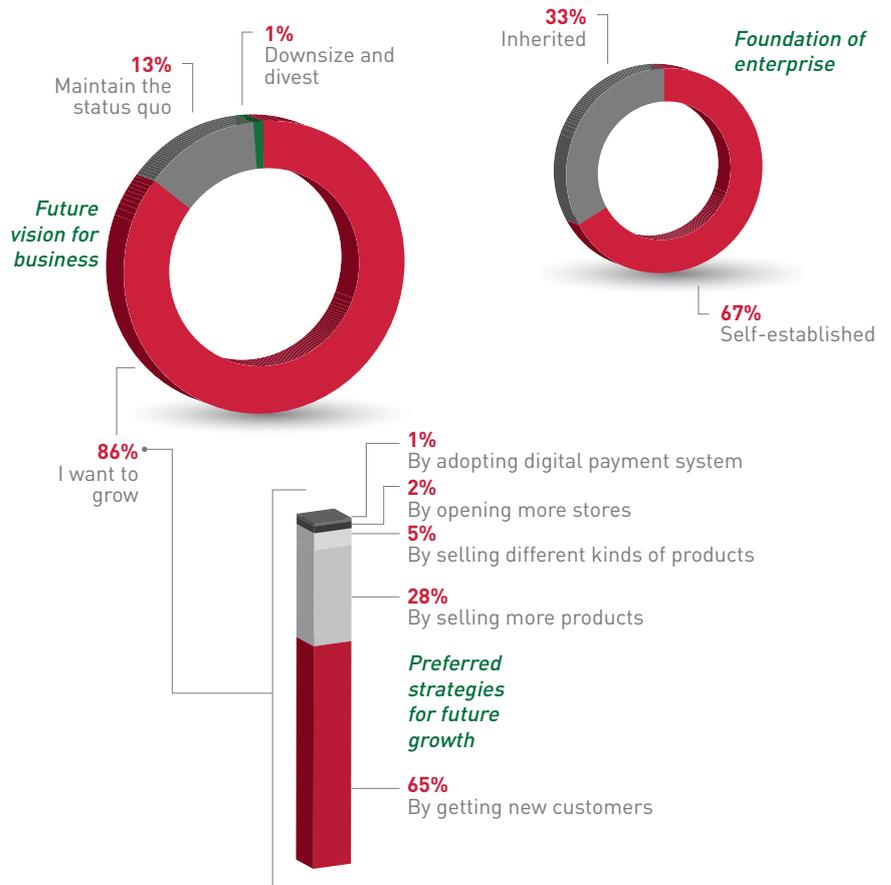
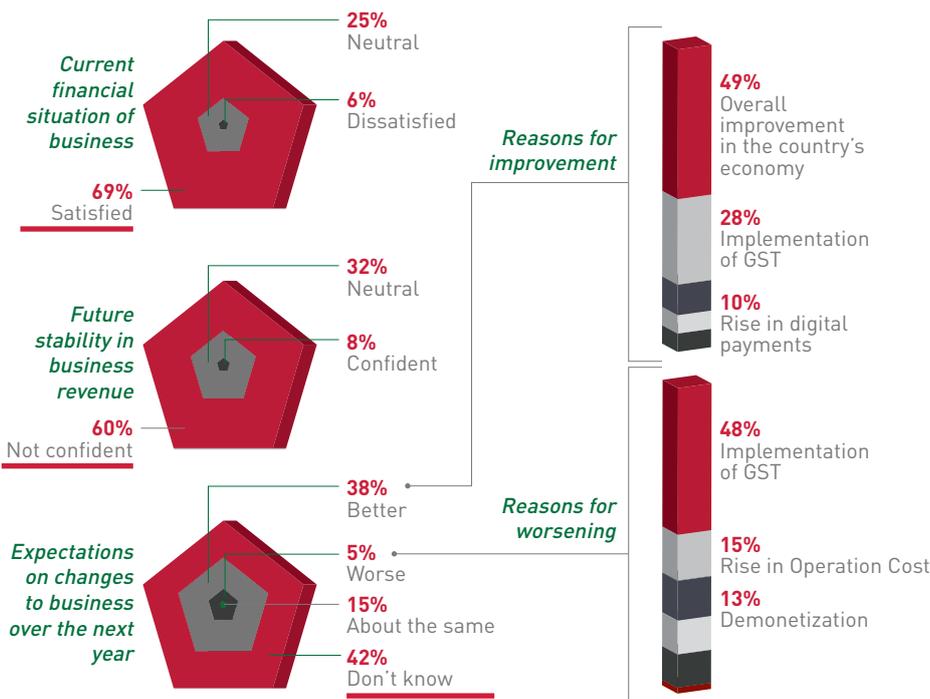


Fig 2: Gazing into the future



Most merchants seem “satisfied” with the financial state of their businesses, while around one third perceive their situation to have worsened or remained stagnant over the last year, and only 8% remain confident about their future stability. Only 38% of merchants expect their businesses to improve during this financial year (2017-18), while almost 42% seem to want to reserve judgment as they wait and watch. Merchants forecasting better business prospects for the year cite overall economic growth and the implementation of reforms like GST as top reasons for their positive sentiments. Interestingly, the introduction of GST was also the main concern for those with a negative business outlook, followed by the rise in business operation costs, and demonetization.¹⁷ The overall anxiety in this segment is real and indicative of significant business challenges faced by vast sections of the merchant and trader populations in navigating recent marketplace disruptions.

¹⁷Subsequent work on the ground by CATALYST suggests that a rise in accountant costs associated with compliance; working capital crunch due to delays in processing of GST input credits; and access to expansion credit are the top current challenges. (Forthcoming CATALYST study to explore the link between GST compliance and digital payments)

1.2

Understanding fixed store merchants

Fixed store merchants are made up of entrepreneurs with diverse social and business profiles. A segmented approach is thus critical to the success of large scale merchant digitization. This study can inform a targeting framework that can be applied to merchant outreach for digital finance. To develop appropriate and value creating solutions, there is need to understand merchant profiles, business operations, and specific transaction contexts.

To illustrate, older & less educated business owners' uptake of digital technologies is likely to be slower than the rest. New technologies are usually more easily absorbed by younger, and those with greater skills and literacy. Similarly, a dairy retailer accustomed to high throughput, low ticket, and thin margin transactions will be less inclined towards digital payments. Additional complexities in merchant digital adoption may arise from the types of consumers they sell to, who in turn may have varying financial and technical capabilities. This calls for solutions that are tailored to specific demographics and user types.

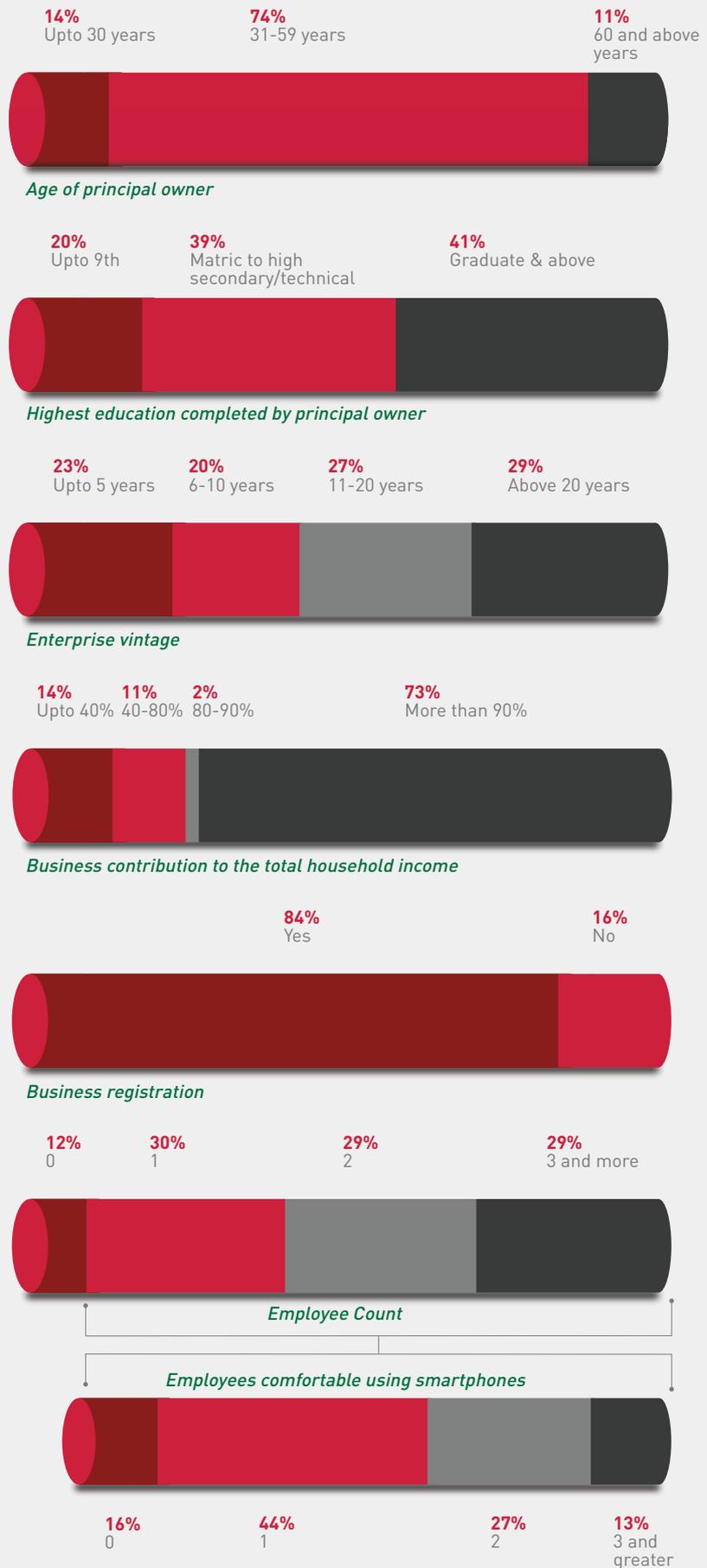
1.2.1

Business profiles

Our sample of fixed store business merchants belong predominantly to the age group of 31-59 years, but more surprising is the high level of education in this population. Almost 41% of merchants are college graduates, and another 39% have completed secondary school education. This bodes well from the standpoint of financial literacy and empowerment as a precursor for adoption of digital finance.

Virtually all sampled businesses are sole-proprietorships (98%) that run year-round (97% are perennial businesses), and mostly formalized with 84% registration rates. Nearly 71% of registered firms confirmed

Fig 3: Merchant profiles



they had GST, Tax deduction Account Number (TAN) or Taxpayer Identification Number (TIN) business identities. Others presumably are registered through the Shops and Establishments Act.

Business vintage in our sample is fairly evenly distributed. About one in four businesses are under 5 years old and nearly one in three businesses over 20 years old. These businesses are an important source of income with over 70% of merchants reporting their business contribute over 90% to their household income.

Nearly 88% of our chosen segment of merchants employs at least one person. Of these, 84% report that at least one of their employees is comfortable using a smartphone.

1.2.2 Transaction context

Merchants have varying transaction characteristics which determine the appropriateness and applicability of digital payment solutions.¹⁸

Operational throughput in terms of volume and nature of transactions is linked to the type of preferred solution. For example, a card swipe machine may be relatively impractical for a fast-paced convenience (kirana) store or dairy booth where speed of transactions is critical. However, it might be compatible with an apparel store where a more consultative and lengthy sales process is involved.

Customer profile also appears to determine the propensity of the merchant to adopt digital payments. For example, retailers that sell largely to women (e.g., cosmetics stores) or to lower income populations (e.g., dairy booths) show greater resistance to digital payments.

Average ticket size is important as merchants (and perhaps, even their consumers) perceive more utility in digitizing large ticket sizes where it is inconvenient to handle cash.

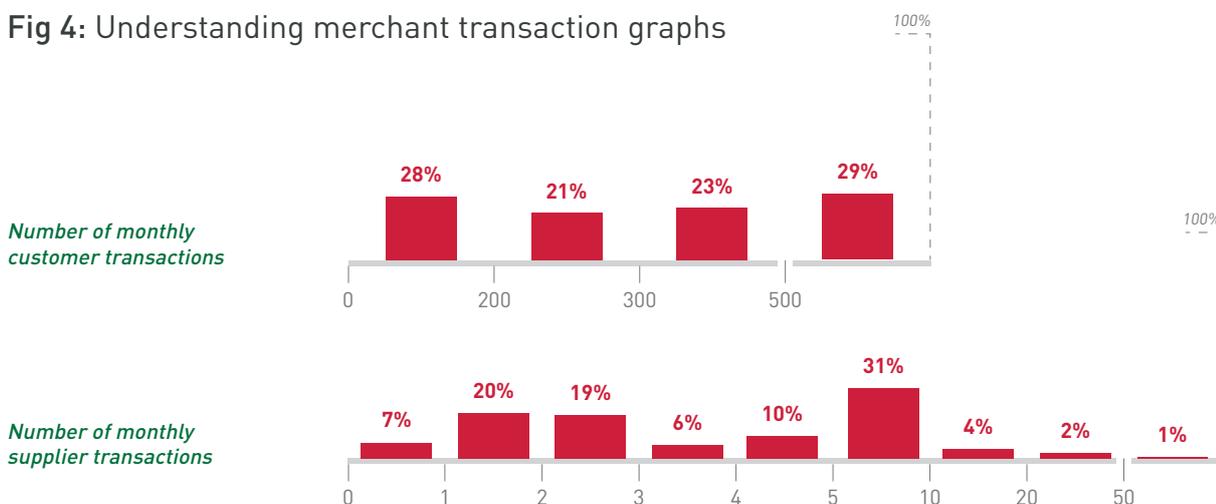
Finally, profit margins could be a critical determinant of adoption since digital transactions have typically ad valorem transaction costs (unlike cash transactions where costs are implicit and not often perceived), and these costs vary by type of payment (e.g., credit card vs debit card vs UPI). While there are certain bespoke categories, such as fashion and apparel and jewelry, where margins can be relatively generous, most small businesses operate on thin margins and instead rely on volumes sold. These merchants therefore carefully consider how additional digital payment costs will further erode their limited take-home revenue. For example, a dairy booth earning 2-3% margin on each sale, no matter how many customers they may be serving, will be unlikely to adopt a digital payment instrument that charges even a few basis points.

The above complexities are critical to designing effective digital payment adoption strategies, and we analyze the data based on this framework.

Nearly 28% of merchants report less than 200 customer transactions per month, whereas 29% report more than 500. On a monthly basis, merchants report a median of 320 customer transactions. However, as expected, there is a large range across business sub-segments. While we weren't able to capture velocity of transactions at peak and off peak periods certain 'high throughput' business profiles, notably dairy and general stores, are the lowest digital adopters.

In terms of supplier payments, as a median, merchants report 2 transactions per month, with 39% at 1-2 transactions per month, and 31% of merchants reporting 5-10 such transactions.

Fig 4: Understanding merchant transaction graphs



¹⁸ Learnings from Catalyst's Digital Payment Lab. See <http://cashlesscatalyst.org/jaipur-posts/catalysts-digital-payment-journey-jai-pur-first-stop-barkat-nagar/>

Besides the diversity in transaction throughput, which is material to digital payment solutions, the differing frequencies of consumer and supplier payments also indicates a need for liquidity during periods of cash outflow to suppliers. It also shows the potential need for access to working capital loans to manage this liquidity over the course of the month to cover sporadic supplier payments and other periodic business operational costs. Even when merchants are extended credit by suppliers, there is an implicit cost they tend to bear.

The median ticket size for sampled businesses is approximately Rs. 200. There is a large variance in ticket sizes across different business types with wholesale merchants reporting ticket sizes of Rs 2,000, which is much higher than that reported by other merchant formats like manufacturing (Rs. 450), retail categories (Rs. 150 –500), government services (Rs. 100), and food services or dairy (Rs. 50).

Business economics are also quite varied. While our sampled businesses report median annual turnover of Rs 13 lakh, certain merchant types, such as wholesalers and dairy booths report 7-10 times higher turnover than government services kiosks. On average, businesses spend 72% (of annual median sales) on purchasing inventory, 7% on business expenses, and take 20% in profits.¹⁹ While customer sales are described by a higher number of transactions, lower ticket sizes and multiple individual interactions, inventory based transactions with suppliers are consolidated, significant in size, and may have additional features like trade credit. This suggests a more

targeted business opportunity for digital disruption or policy intervention.²⁰

Businesses sampled report a 10-25% range in product margin, and these ranges differ by business types. For example, dairy merchants report the lowest product margins in the range of 2-5%. The lowest end product margins reported by other businesses are between 10-20%, whereas the highest end product margins are in the range of 20-30%. In terms of business format, wholesale profits range between 10-20%, retail profits range between 20-25% and services profits range between 17-30%.

On average, merchants report 50% of their median monthly customers to be repeat customers, again with variations according to business types. Dairy booths report three-quarters of their customers to be repeat customers. Wholesalers, e-mitra stores, retail stores, and food services report half. Services, hardware, apparel & footwear, and cosmetics report rates closer to two-fifths. All things being equal, businesses that have a greater share of repeat customers could make better targets for digital payment initiatives. This is mainly because the one-time learning and onboarding costs can be spread across a stream of recurring transactions, not to mention greater trust and the merchant's ability to influence and change consumer behaviors. Recurring customers also necessitate product innovations such that payment solutions are linked to broader receivables management workflows (e.g., micro ERP solutions), as illustrated by the work Catalyst has done with newspaper vendors in Jaipur.²¹

¹⁹We use median values reported for annual sales, business expenses (including rent, utilities, employee salaries etc), as there are some outliers in the data and medians (instead of means) provide a more reliable estimate for such figures.

²⁰This is also aligned with Catalyst's operational learning from the lab.

²¹See Catalyst blog on MeraPaper - <http://cashlesscatalyst.org/catalyst-blog/remote-payments-era-new-boom-transforming-digital-payment-landscape/>

SNAPSHOT OF MERCHANT CATEGORIES

(Self reported data, median values)

Aggregate data does not portray the rich diversity that exists across different business formats and industry categories. Below fixed store merchants have been classified into 12 distinct, mutually exclusive categories.



RETAIL

Dairy Booths

General Stores

Hardware & Homeware

Apparel & Footwear

Toiletries & Cosmetics

Medical

Retail - Others



Merchant profile

Age (years)	44	45	45	43	38	40	47
Education level	25%	45%	38%	43%	28%	64%	44%
Graduate & above							
Matric to higher secondary/ technical	45%	38%	40%	39%	55%	20%	36%
<i>Remaining merchants have education upto 9th grade</i>							
Gender	7%	0%	0%	1%	4%	0%	6%
<i>% of female principle owners</i>							



Business profile

Business vintage	10	12	17	12	7	15	16
<i>Years of operation under current owner</i>							
Vision for growth	84%	80%	90%	81%	83%	100%	83%
<i>% that want to grow</i>							
Turnover (in Lakhs)	30	14	16	15	12	15	10
Profit/Loss	3%	19%	19%	20%	23%	22%	25%
<i>profit as a % of sales</i>							
Inventory cost	97%	75%	77%	75%	67%	62%	64%
<i>Inventory cost as a percentage of total sales</i>							
Business contribution to owner household income	25%	100%	100%	100%	100%	100%	100%



Transaction profile

Weekly customer transactions	400	105	80	80	90	120	50
Average ticket size	50	150	500	500	300	200	650
Product margins (min-max%)	2 - 5%	10 - 20%	11 - 20%	10 - 20%	20 - 25%	15 - 25%	20 - 30%
Repeat customers	75%	50%	30%	30%	30%	50%	25%
<i>As percentage of total customers</i>							



Digital readiness

Bank account ownership	93%	93%	98%	97%	94%	100%	97%
Bank account usage	75%	92%	100%	93%	91%	96%	94%
<i>Deposits or withdrawals with at least monthly periodicity</i>							
Fixed deposit ownership	13%	30%	53%	25%	26%	38%	22%
Smartphone ownership	52%	70%	78%	83%	84%	90%	72%
Internet access	29%	48%	58%	60%	46%	68%	58%



Digital payment adoption and usage

Adoption	13%	37%	50%	53%	29%	38%	44%
Usage	75%	70%	70%	83%	80%	84%	94%
<i>% of adopters; usage as defined in section 3.2</i>							
Merchants perceiving digital payment benefits to business	25%	44%	55%	55%	28%	66%	47%

...contd. to next next page

SNAPSHOT OF SNAPSHOT OF MERCHANT CATEGORIES (... contd.)

(Self reported data, median values)



WHOLESALE



SERVICES

eMitra

Food

Hardware &
Manufacturing

Services
- Other



Merchant profile

Age (years)	45	30	40	44.5	45
Education level	54%	77%	28%	25%	47%
Graduate & above					
Matric to higher secondary/ technical	38%	22%	38%	46%	34%
<i>Remaining merchants have education upto 9th grade</i>					
Gender	1%	2%	1%	0%	1%
<i>% of female principle owners</i>					



Business profile

Business vintage	16	3	12	17	15
<i>Years of operation under current owner</i>					
Vision for growth	92%	89%	89%	82%	84%
<i>% that want to grow</i>					
Turnover (in Lakhs)	35	4	10	10	10
Profit/Loss	14%	40%	25%	24%	23%
<i>profit as a % of sales</i>					
Inventory cost	78%	32%	64%	67%	64%
<i>Inventory cost as a percentage of total sales</i>					
Business contribution to owner household income	100%	33%	100%	100%	100%



Transaction profile

Weekly customer transactions	80	150	150	50	70
Average ticket size	2000	100	50	450	250
Product margins (min-max)	10-20%	10 - 35%	15 - 30%	20 - 30%	15 - 30%
Repeat customers	50%	50%	50%	33%	40%
<i>As percentage of total customers</i>					



Digital readiness

Bank account ownership	99%	100%	99%	93%	96%
Bank account usage	99%	96%	95%	90%	91%
<i>Deposits or withdrawals with at least monthly periodicity</i>					
Fixed deposit ownership	41%	21%	30%	33%	40%
Smartphone ownership	87%	94%	69%	69%	79%
Internet access	63%	97%	47%	45%	64%



Digital payment adoption and usage

Adoption	47%	95%	30%	32%	50%
Usage	87%	76%	93%	81%	85%
<i>% of adopters; usage as defined in section 3.2</i>					
Merchants perceiving digital payment benefits to business	48%	76%	49%	50%	54%



2

TRANSITIONING FROM ADOPTION TO USE

Much analysis of digital payment landscape has focused on adoption whereas sustained usage is key to digital payment transformation. Given a preponderance of “free to install” solutions as well as a gamut of incentives offered, there is a significant pool of merchants that sign up initially but subsequently maintain dormant accounts. In this report, therefore, we have decided to define digital adopters as merchants who responded in the affirmative when asked whether they currently use any of the following four forms of digital payments: mobile wallets, point-of-sale, UPI, and internet banking.

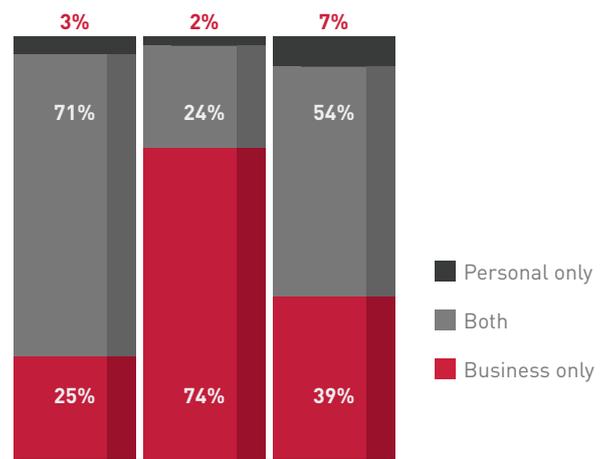
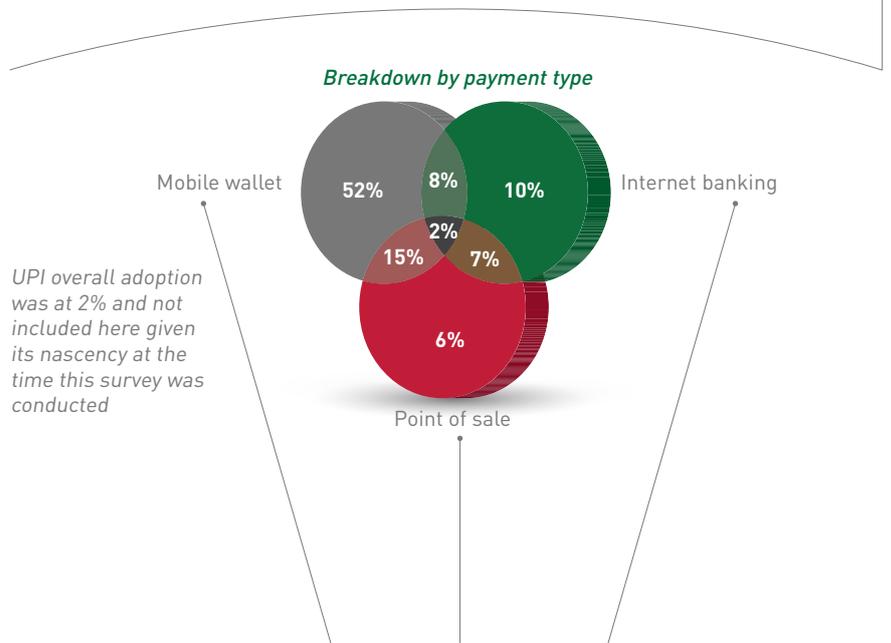
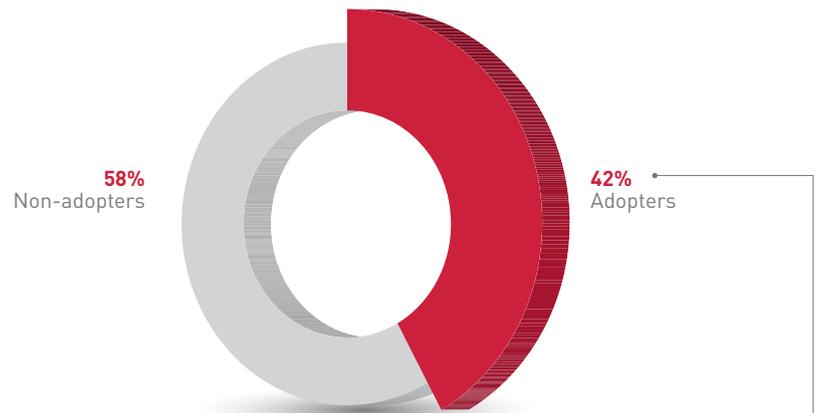
Similarly, we define sustained users as those who self-reported at least 5% digitization of payment value vis-a-vis either payment received from customer(s) or payment made to supplier(s).²²

2.1 Driving trialability

In our sample, 42% of merchants have used some form of digital payments, with a vast majority of them having applied the solution in context of their business. The most popular digital payment solution is the mobile wallet (prevalent across 75% of adopters), followed by POS and then internet banking.

Across our sample of fixed-store small merchants, on average only 8% of customer payment value gets transacted digitally, while 84% of customer payments are received in cash, and 8% in cheque. For supplier payments, we see a greater shift toward cheques, which account for 42%, while cash is used for 54% of the transaction value. Digital channels account for only 4% of the supplier payment value. The key factors for cheque payments in the supply chain include aggregated payments and higher ticket sizes, collection by intermediaries, and need for post-dated payment instruments due to credit cycles. There exists an opportunity for stakeholders to migrate these cheque payments to digital transactions.

Fig 5: Adoption and trial patterns



²²While we acknowledge this is a somewhat arbitrary figure, using a benchmark of roughly one in twenty transactions seems like a reasonable if not conservative threshold for usage.

Fig 6: Breakdown of usage by payment mode (All 1003 users)

When asked about the top three factors that triggered adoption (see Fig 7), 74% cite demonetization as the top reason, 53% cite customer demand, and 19% state ease of use/better experience. On the other hand, among the rest who haven't adopted digital payment solutions, lack of customer demand is cited as the top reason (55%), followed by lack of awareness (42%) and "fear of being cheated" (42%). It is obvious that customer demand plays an important role in driving merchant decisions to both adopt and not adopt.

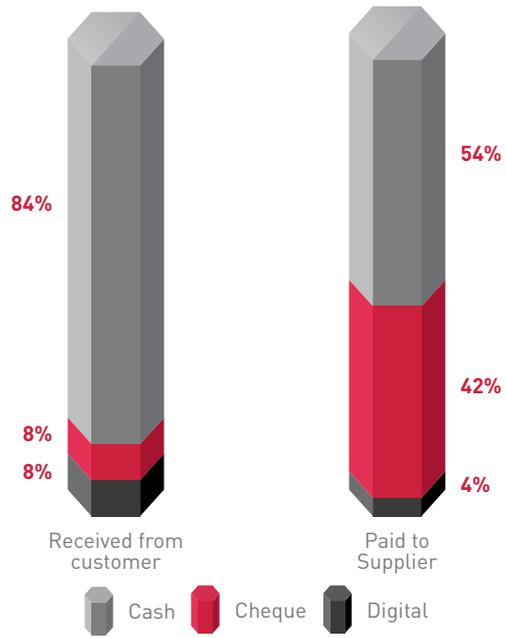
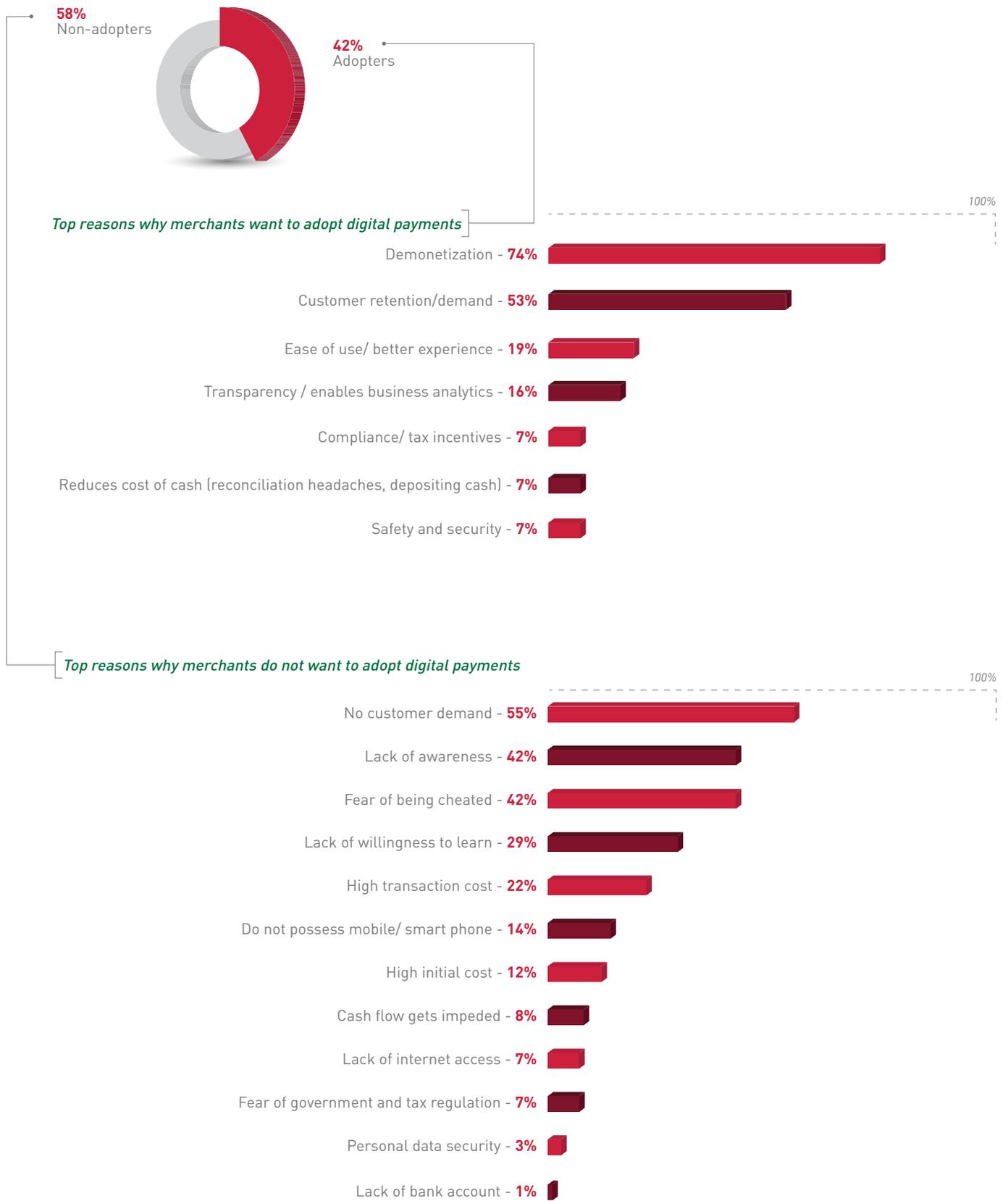


Fig 7: Perceived barriers and motivators for adoption²³



²³Reflects percentage of respondents who cited reason among their top three choices.

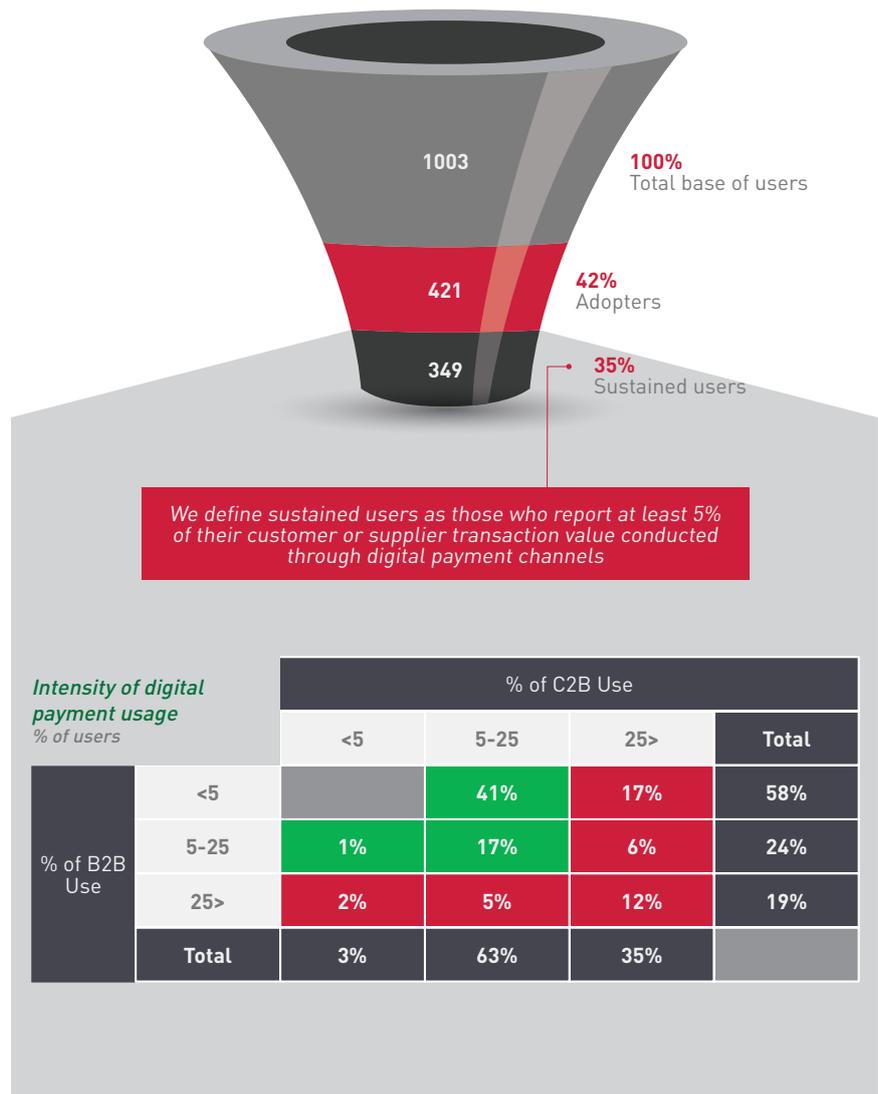
2.2

Usage patterns and drivers

Based on definition of usage, over four-fifths of digital payments adopters continue to use these solutions, i.e., the reported value of their digital transactions is greater than 5%. We further break down merchants across different intensities of usage as follows:

In Fig 8, we bucket merchants reporting digital transaction values less than and greater than 25%, across both their customer and supplier payments. About a third of merchants that digitize customer receipts and nearly a fifth of those that digitize supplier payments report greater than 25% digital penetration. While these self reported values may be indicative at best, the data suggests more digital traction with C2B vs B2B transactions, likely given the widespread use of post dated cheques in the latter. With new digital payment technologies that mimic deferred payment workflows, perhaps we will see more digital inroads on the supplier payments side.

Fig 8: The usage funnel





ॐ

मो. 989

स

दरिद्र

दिल्ल

आगरा

हरिद्र

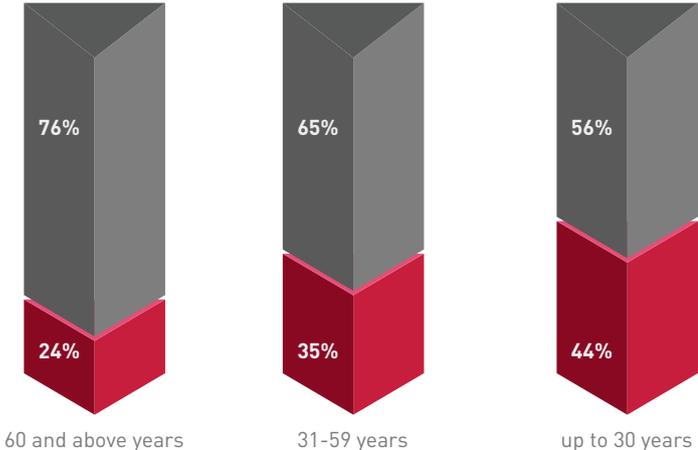
नोट-हमारे यह

इनोवा डिज

Fig 9: Factors for digital usage

Less use ← → More use

Merchant owner age profile

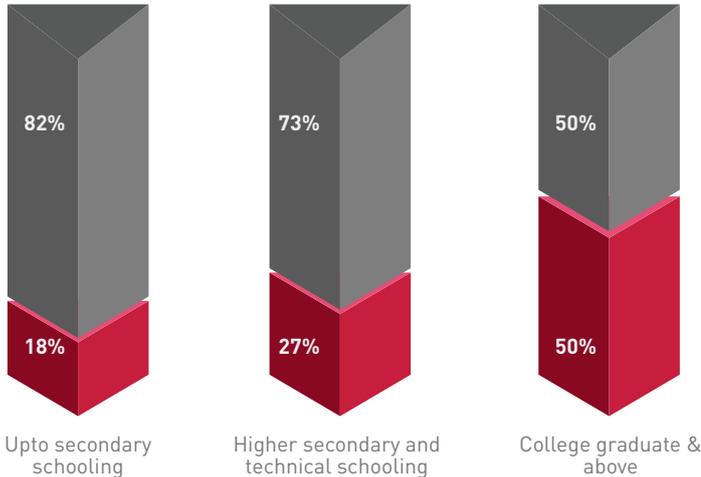


Intensity of usage follows certain patterns based on merchant and business level characteristics. Better understanding of these factors provide ample scope for customized interventions to induce trials as well as sustained use of digital payments.

The young and educated as early users

Among the fixed store merchants, a greater proportion of younger merchants (under 30 years) are digital users, while the proportion of digital users declines among older merchants. Similarly, there is a marked correlation between merchant education and digital usage. Merchants with college graduate degrees are evenly split between users and non-users, whereas merchants with lower educational qualifications show lower usage rates.

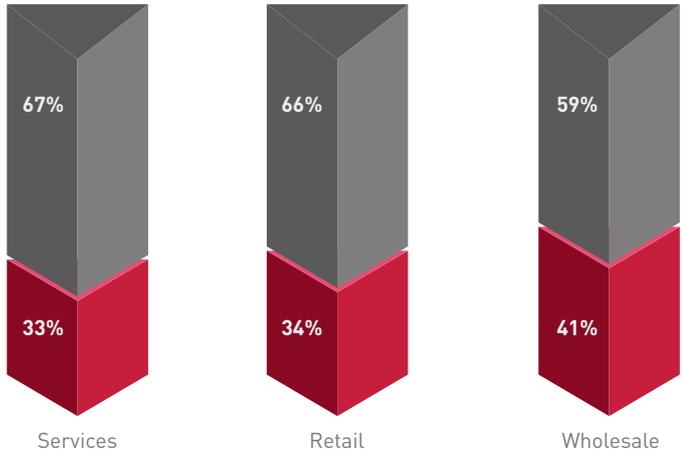
Merchant owner education profile



The role of business economics

In our merchant sample, wholesale-based businesses report 41% users, while a third of service and retail based firms are reported users. This can perhaps be explained by the fact that wholesalers recurrently transact in larger amounts with the same base of retailers.

Merchant business profile

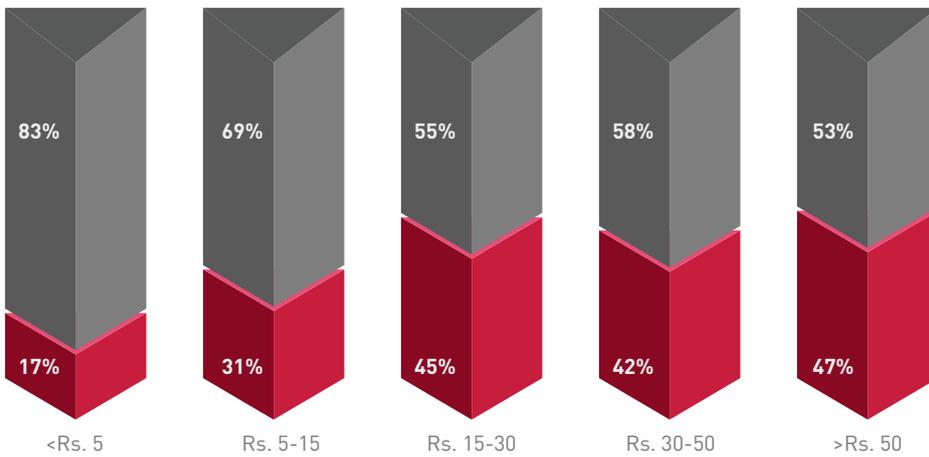


Grey box: Digital non-user Red box: Digital user

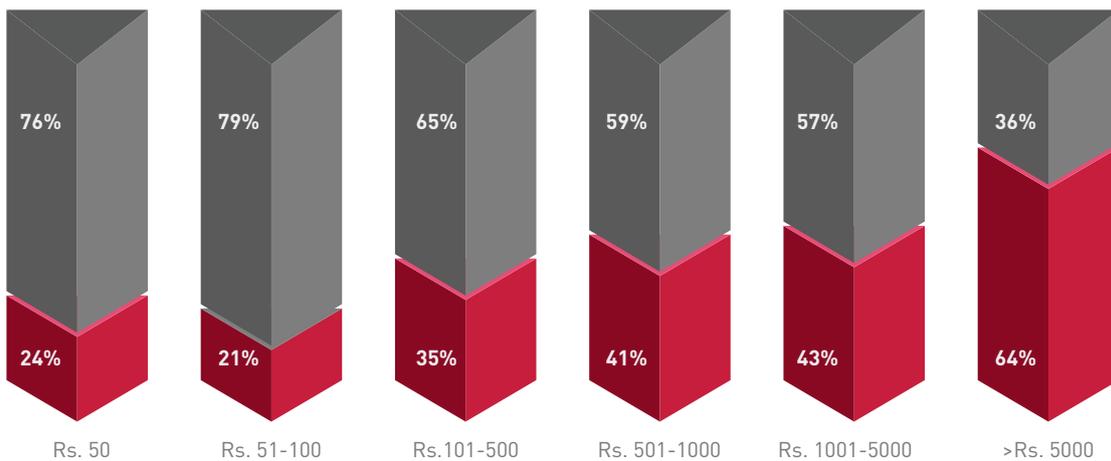
...graphs contd. to next next page

There is a direct correlation between sales and usage rates. Among merchants with annual sales of above Rs 15 lakhs, 45% are users of digital payments. In contrast, among those with less than Rs 5 lakhs annual sales, only 17% are users. Also, the higher the average customer spend is in a store, the higher the proportion of digital users. Merchants also express preference for cheques over cash for higher ticket sizes. This indicates potential for digital payments to grow in the higher ticket size segment as the preferred payment option (refer to Box 4.3 on preference for cash vs cheque vs digital). Surprisingly, we don't see much variation in the distribution of digital users and non-users by product margins.

Merchant annual sales (INR in lakhs)



Merchant average transaction size (in INR)



Digital non-user
 Digital user

3

TURNING NON-USERS INTO USERS

In the previous section we distinguished between merchants who have tried digital payments, and those who use digital payments on a sustained basis. Given that almost two-thirds of our fixed-store merchant base are not sustained digital payment users, a natural question arises as to whether they can be transformed into ones and, if so, how best to trigger this transition. There are two critical lenses that we apply here. First, are they digitally (financially) ready or do they have access to the enabling infrastructure needed to chart this migration course? And, second, do they see value from digital payments and, if so, how?

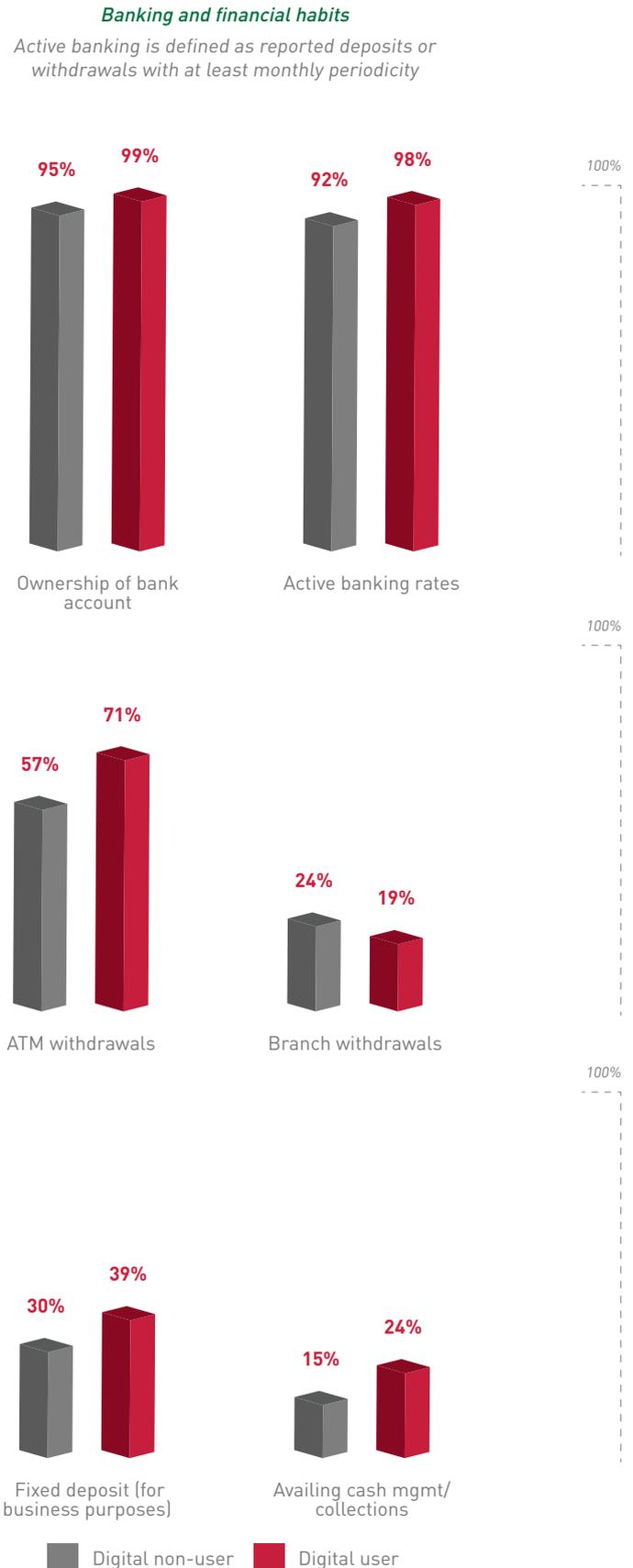
3.1 Digital financial readiness

Infrastructure needed to enable small businesses to use digital payments includes access to core banking, computing devices like mobile phones, and internet connectivity. Financial literacy and capabilities are also important and may be somewhat reflected in how they use their bank accounts. Understanding the ways in which merchants access accounts, hardware devices, and infrastructure can therefore provide useful insights into ways of increasing digital payment penetration.

Small fixed-store merchants in Jaipur are not only banked but also active bankers. Banking ownership and bank usage²⁴ rates are consistently over 90% across both users and non-users of digital payments, a figure roughly 40 percentage points above the national average.²⁵ Over 90% of merchants hold debit cards, whereas credit card ownership is expectedly much lower at 20%.²⁶ Debit cards are used for withdrawing cash by 71% of users and 57% of non-users. Withdrawals from bank branches on the other hand are not very popular, with 19% of users and 24% of non-users reporting such behavior. These behaviors suggest higher than average levels of financial capabilities among fixed store merchants.

There are marked differences in the ownership of computing and communication devices (e.g., computers, laptops, and landline phones) between users and non-users. Nearly 29% of users have computers

Fig 10: Digital Financial Readiness



²⁴Bank use is defined as a withdrawal or deposit undertaken with at least monthly periodicity

²⁵At 48%, India tops in bank users with inactive accounts (World Bank, Global Findex database 2017)

²⁶These are markedly greater penetration rates than national aggregates. See <https://www.medianama.com/2017/07/223-india-credit-cards-debit-cards-may-2017/>

while 7% of non-users report owning computers. Similarly, while 51% of users have landline phones, 22% of non-users have landline phones.

Low internet connectivity is a barrier to adoption and usage

The differential in smartphone penetration rates of 99% and 73% for users and non-users, respectively, seems material to digital adoption and use. Significantly, there is a significant gap between those who have internet connectivity and those who don't: 88% of users report access to internet while only 38% of non-users report such access.

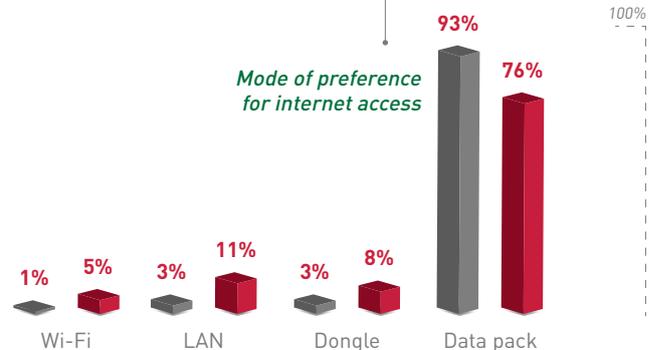
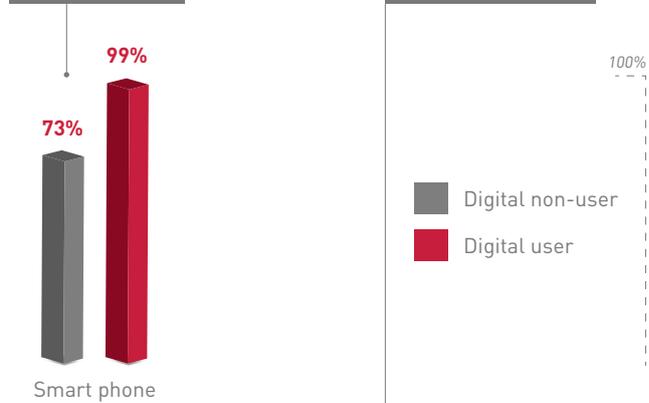
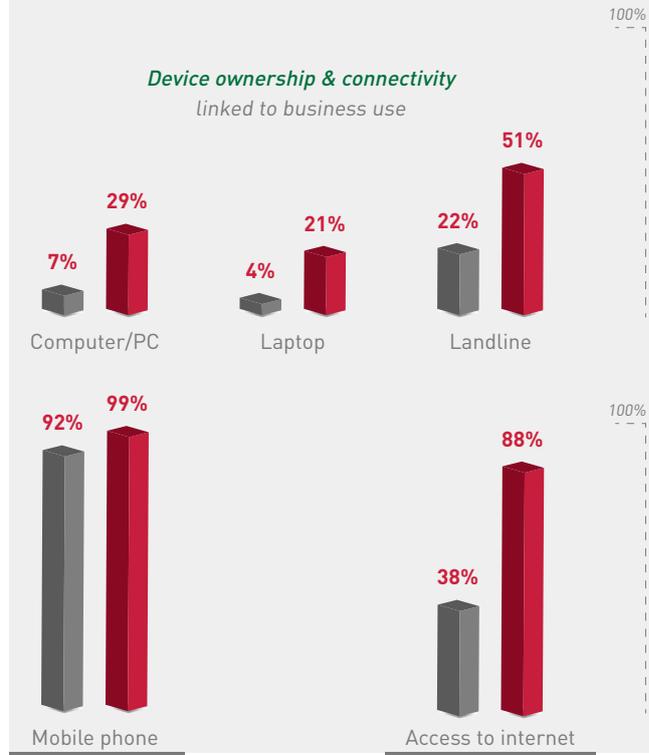
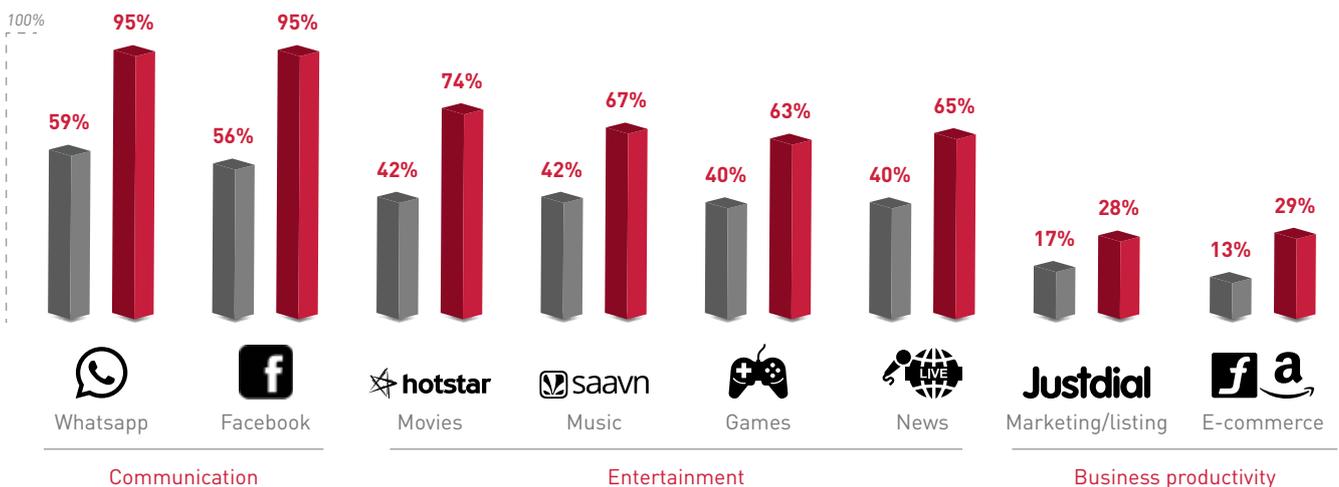
Nearly 93% of digital non-users with internet connectivity access it through data packs. This segment should benefit from the precipitous reductions in data costs over the past two years with the entry of new players like Jio. Also, given the near universal ownership of mobile phones, it is not surprising that over four-fifths of merchants prefer to access the internet on their mobile phones.

Appeal for business productivity apps is lower than that for communication and entertainment

While phone ownership is high across both users and non-users, there are distinct patterns in the extent and purpose of phone usage. Among digital payment users, 95% report use for communication & networking applications; over two-thirds for entertainment; and just under 30% use business productivity related applications. In contrast, about 57% of non-users cited communication & networking; just upwards of 40% cited entertainment, and about 15% cited business productivity.

Across users and non-users, communication and entertainment apps seem to be more popular than business productivity apps, especially marketing and sales apps. However, also salient is the consistently higher levels of usage across app categories by digital payment users, indicating the relevance of instilling broader use of digital applications to drive digital payment usage. This is likely linked to the significantly lower internet connectivity rates for non-users.

Trends in business app usage



3.2

Trials and pathways to customer expansion

Besides owning and accessing enabling infrastructure, merchants' perceptions on the benefits of digital payments as well as their willingness to pay for such value are important factors to consider when designing effective strategies. Building user awareness and education

on potential business benefits of moving from cash to digital alongside greater transparency on performance reliability, fraud protection and data security will enable users to make an informed choice about the various solutions available in the marketplace.

Only about a third of non-users feel that digital payments could be beneficial to their businesses compared to over three-fourths of users. The more positive sentiment among

Fig 11: Will digital payments boost my business?

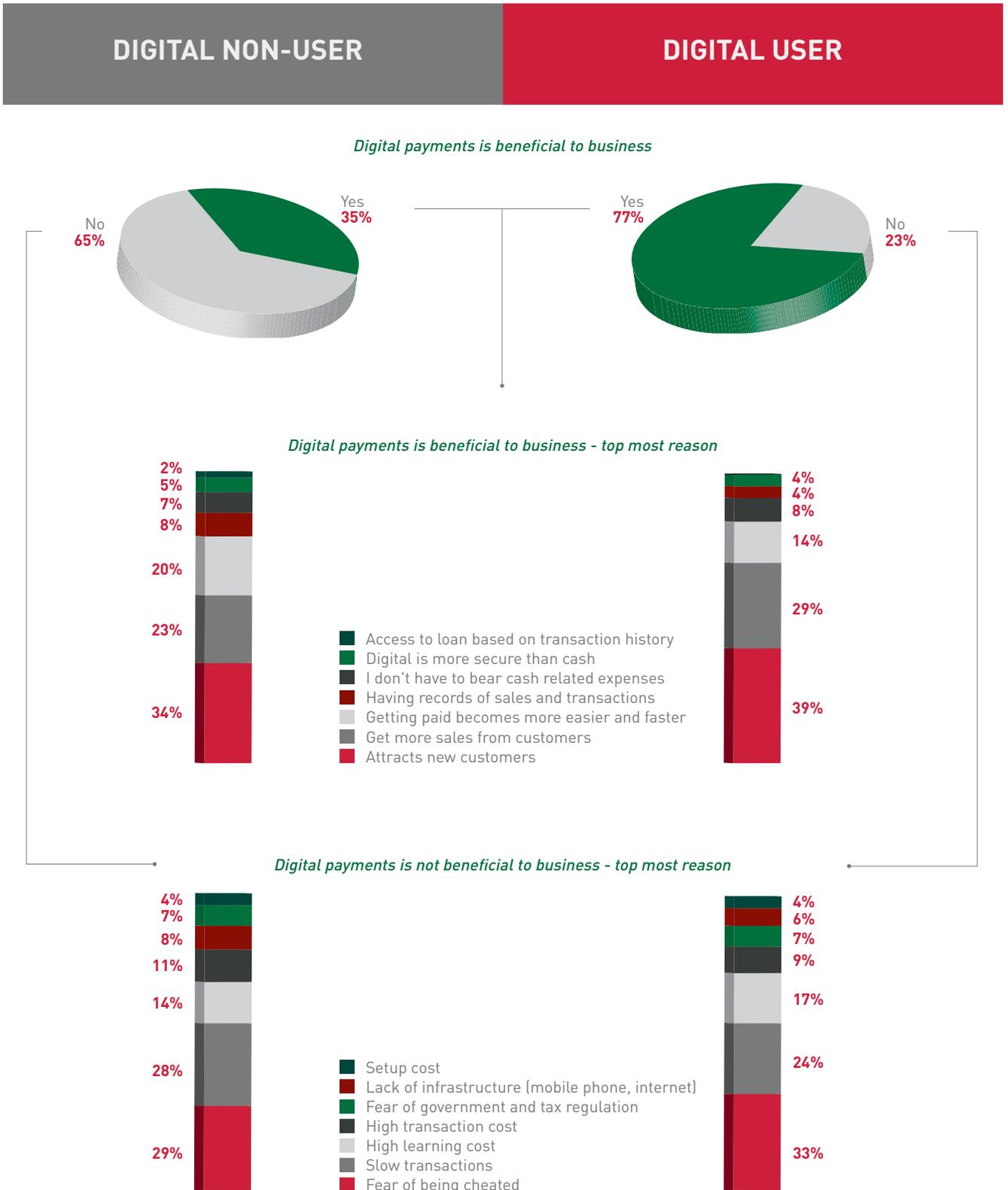
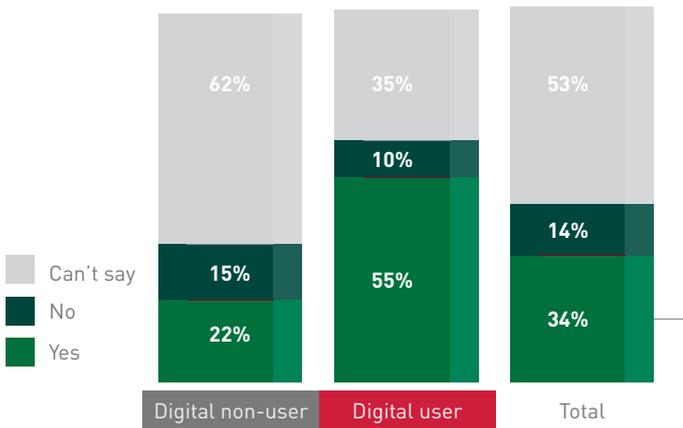
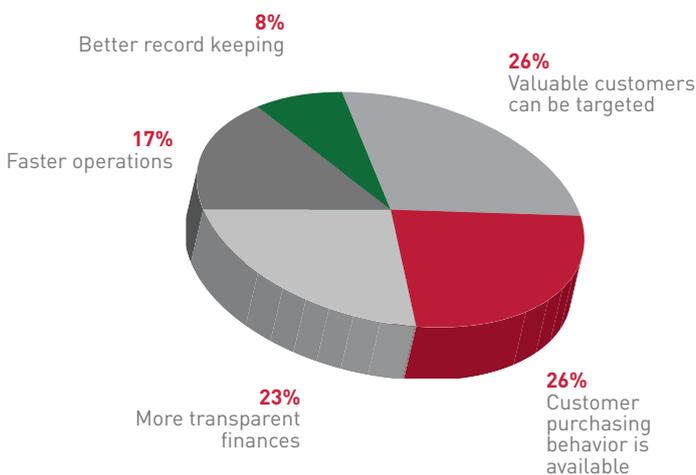


Fig 12: Will digital payments improve my operations?

Digital interface provides better business operations



Reasons for better business operations



users could be indicative of tangible benefits, the positive experience and greater comfort derived from actual usage of digital payments. This also highlights the importance of driving trials among non-users.

Customer acquisition and increased sales as the motivating factors

To identify reasons that may motivate non-users to try out digital payments and eventually shift towards greater use of these payment modes, we examined non-users who view digital payments as beneficial to their business. The 'ability to attract new customers' is cited by 34% as the most important reason, followed by 'more sales from customers' cited by 23%, and faster payment cycles cited by 20%. This preference structure is not too different from that of digital payment users. Interestingly, both users and non-users rank 'cost of cash' relatively low as a motivating factor, validating the need to emphasize business growth value versus operational efficiency arguments to change merchant behavior.

Need to build trust levels and reduce anxiety related to digital transactions

Conversely, low levels of trust and in particular, a 'fear of being cheated' and 'slow transaction speeds' are the main factors cited by both digital payment users and non-users with unfavorable views on benefits of digital payments for their business. This is followed by high learning costs. Alleviating such fears, and building merchants' trust through more transparent information on both benefits and risks is required. Additionally, providing post-adoption support may help in increasing use of digital payments among these groups. Similarly, better product experiences and cost-effective ways to develop capabilities for usage will be important for broader user growth. Trust is an important feature for financial systems, and payment solutions providers should ensure that their systems are built to protect consumer data and interests.

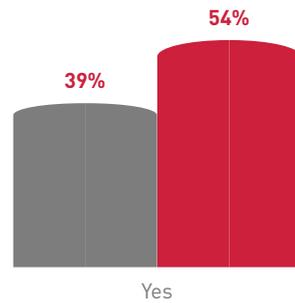
Most non-using merchants are agnostic about the ability of digital interfaces to improve business operations, whereas a little over a fifth agree to this. This is in contrast with a majority of user merchants who agree. Among those who did agree, a majority linked this to having better knowledge and understanding of their customers (52%). Other benefits cited included transparent finances (23%), and faster processes -and record maintenance (25%).

Fig 13: A low willingness to pay

Transaction fees – aye or nay?

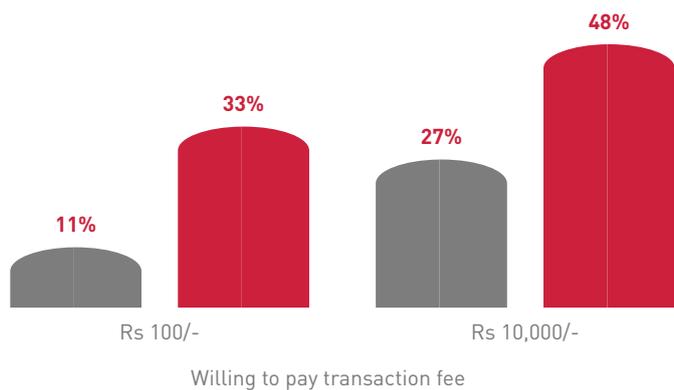
Another reflection of demonstrated value is the willingness to pay for the service rendered. While our survey methodology is not robust enough to precisely estimate a user willingness to pay, it broadly indicates the level of merchant buy-in for digital payment transaction fees. While a majority of users seem comfortable with the notional idea of paying a small fee in lieu of the benefits derived, a majority of non-users do not (though a significant fraction do). However, we appreciate that the relevant question (or experiment) here is, would merchants using digital payments change behavior if a transaction fee was introduced?

Willing to pay small transaction value for more convenience/ benefits?



When asked the same question in the context of a specific sized transaction, merchants show a higher propensity to pay for higher ticket size transactions, with roughly a 15 percentage point boost in willingness for a transaction valued at Rs. 10,000 vs Rs. 100 . Even digital users are divided about their willingness to pay transaction fees for high ticket transactions, and two-thirds of digital users are unwilling to pay fees for small transactions.

For small vs. large transaction sizes?



Interestingly, when asked about actual amounts they would be 'willing to pay' against large (Rs. 10,000) and small (Rs. 100) transactions, only 13% and 19% of respondents, respectively, reported amounts corresponding to the current rates charged by payment platforms (i.e., 25 basis points and above).

■ Digital non-user ■ Digital user

3.3

Digital as last among equals

Earlier in the report, we observed that stores with a higher average customer spend are more likely to use digital payment solutions. For all merchants, as the ticket size of the transaction increases, the overall preference for cheques and digital payments also increases. An important observation is that cheque (and not digital) tends to displace cash for higher transaction sizes.

Even for digital users, cash to cheque displacement is most pronounced with the share of cheque rising to 67% for transactions above Rs 10,000. Cash is preferred when the transaction amount is less than Rs 100. For transaction sizes greater than Rs. 1,000, there also seems to be a jump in the preference for card and internet banking payments.

Overall, digital payments have room to grow in the higher transaction sizes. At the same time better product

innovation and digital financial capabilities can drive digitization of low end transactions.

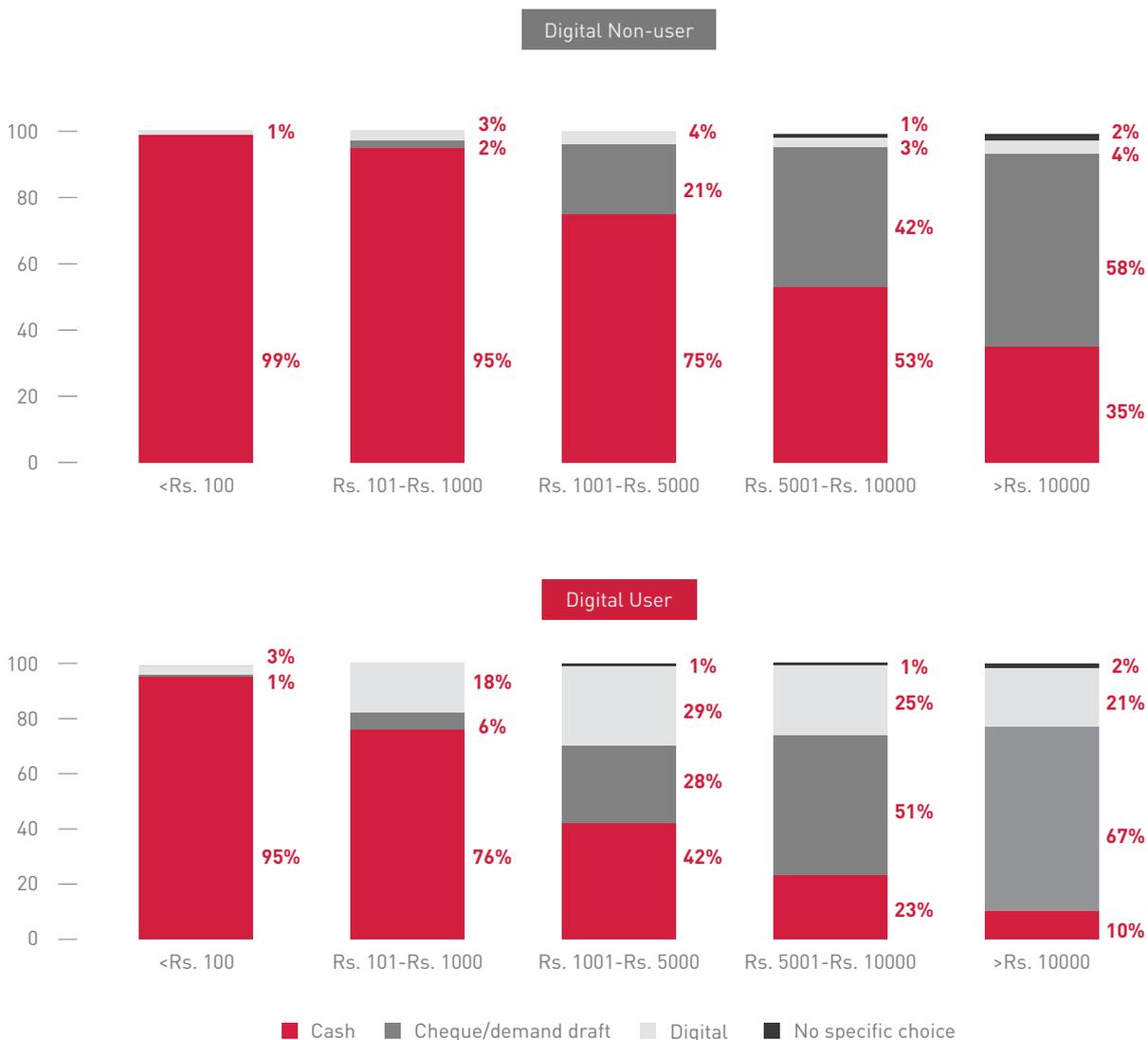
Non-users seem to have a higher preference for cash across transaction size brackets with very little digital preference even for higher ticket sizes. However, cheques are preferred over cash for ticket sizes greater than Rs 10,000. Interestingly, a fourth of non-users report that they do not have transactions worth Rs 5,000 or greater.

3.4

Ranking users' experience of digital vis-a-vis cash

Since cash usage is ubiquitous, we compared rankings provided by users of each digital payment type to the same group's rankings of cash. This lens is helpful to gauge specific features of digital payments valued by merchants who have actually used these digital payment modes.²⁷

Fig 14: Merchant preference for payment types across ticket sizes



²⁷The users were requested to rate each of the financial instruments on standard features (security, ease of record keeping etc) individually between 1 to 5, where 1 signifies "poor" and 5 signifies "excellent." Those who had not used a particular instrument do not feed into its ratings. Respondents were not specifically asked to compare these instruments in pairs and rather rated each instrument individually. Given cash is used widely and represents the baseline for most users, we compared the rating of cash with that of individual instruments one at a time. The average ratings of users which had used both the instruments in question were used.

Interestingly, internet banking is considered more favorable compared to cash for its security, control over payment timings, speed, ability to keep records, and easier set-up requirements. For ease of use, cost, and ecosystem acceptance, both garner equal ranking. Merchants who have used internet banking view it more favorably than cash on most counts.

On the other hand, cash is ranked more favorably than POS solutions, especially when it comes to, ease of use, speed and cost. Cash on the other hand does better for record keeping - something that can potentially be addressed by digital

finance startups combining business and customer insights with their POS products.

Relative to cash, wallets get more votes for their record-keeping abilities in particular, but also for security and speed. On all other counts, there is parity between the two payment types.

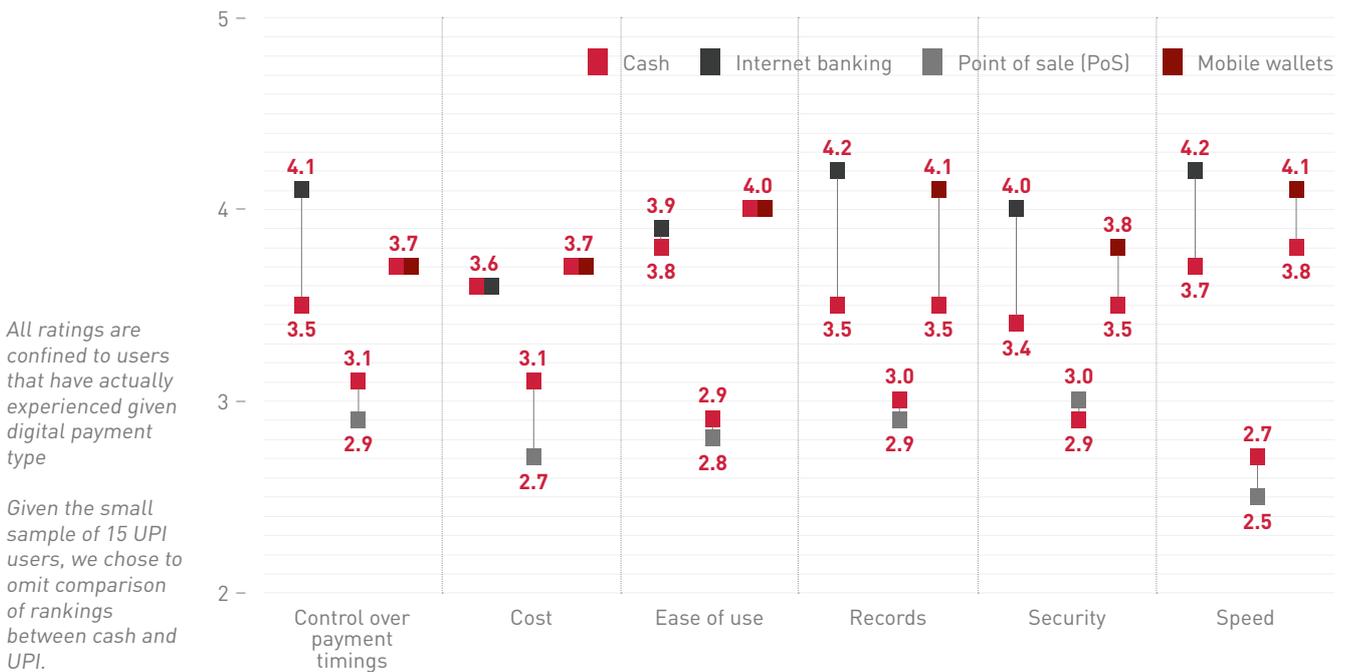
Overall, this again goes to show that actual trial of digital payments can lead to a demonstration effect to drive home some of the tangible benefits of digital payments versus cash. Also, it points to the continuing need for innovation to further improve user experience and deeper business value

that merchants can gain from using digital platforms.

3.5 Evaluating the cost of cash

Cost of cash is not a major concern for merchants. All sampled merchants report their ability to avail loose change through regular business cash flows. Incorporating digital payments for some customers may therefore actually reduce the change available for transacting with remaining customers and act as deterrent. On the other hand having more 'cash-in,

Fig 15: User ratings of digital payment types vs. cash



cash-out' liquidity options combined with digital solutions can play an important part in making merchants move towards digital solutions.

Less than 1% of merchants report any cash being stolen in the past year. Manual bookkeeping is a common practice for profit-and-loss accounting and inventory stock management. Merchants who use

the manual method reported that they find this method to be easy to use and sufficient to fulfill their business needs. Less than one-fifth of merchants use a computerized method or a bar code based scanner system to do their bookkeeping.

Unless merchants feel the pinch of time and resources spent on gathering loose change, or the

hassles of keeping track of small ticket transactions, inventory and finances, the intrinsic motivation to switch from cash to digital based on efficiency arguments alone will be low. Instead, innovators and policymakers need to shift focus on creating topline value for small businesses through digital payment solutions.

The background is a solid red color with a pattern of thin, parallel white lines that create a sense of depth and movement. The lines are arranged in a series of overlapping, slightly curved bands that sweep across the page from the top left towards the bottom right. The density of the lines increases as they move towards the right side of the page.

4

SO WHAT WILL IT TAKE?

From the previous section, we have reason to believe that fixed store merchants that currently don't use digital payments face specific barriers that prevent use. These include infrastructural challenges, such as limited access to internet and lower smartphone penetration, which have limited usage and reduced comfort levels with smartphone apps in general.

There are also salient obstacles in driving much needed trials (which appears to trigger more informed and positive perceptions) due to low levels of trust in digital payment solutions and, conversely, a limited understanding of associated benefits as well as real risks. Most non-users can be viewed as agnostic versus squarely against the use of digital payments. Given these perceptions, it is not surprising that they are unwilling to pay to access these solutions.

Finally, there remain feature gaps in available products that need to be addressed to provide real business value to merchants. Despite the recent and concerted push towards greater digitization across stakeholders, much remains to be done by way of specific interventions by policymakers, innovators and facilitators to promote digital payments among small businesses

Growing the digital payment solutions market: implications for service providers

4.1

Revamp business models by reducing upfront 'trial' cost

In a low-trust environment, merchants are cost sensitive and often times reluctant to incur even a small fee despite other benefits. **Set-up costs of digital payment solutions are seen as a barrier by non-users, considering that 62% are willing to adopt and try digital payment channels if installation charges were removed.**

With merchants well entrenched in the cash based payment system, there is resistance in incurring a cost to shift to different payment modes on the basis of transaction sizes. Other barriers include learning new solutions, altering their business or customer workflows, besides maintaining two registers - one for cash and another for digital transactions. Product innovators and entrepreneurs can design new

products and business models to address these constraints in more effective ways, perhaps even through "gain share" models where revenue streams are linked to tangible, demonstrated value to users. Monetization models based not on increasingly commoditized payment transactions, but rather on value added services would serve well here.

4.2

Embed value added services linked to business value: analytics, loyalty and personalization

As our analysis has shown, customers are the central decision making factor for merchants with regard to their businesses. **Nearly 59% of merchants not using digital payments today are open to using digital payments if it allowed them to provide targeted discounts to their customers.** There is also significant value placed on being able to identify and segment more attractive customers. Digital financial services can incorporate such functionalities in their product design. There are global examples of small merchant commerce platforms, such as Square in the US, which have subsidized payment features as loss leaders and embedded them into broader, higher value workflows (e.g., customer analytics, loyalty, and eventually, access to credit) to acquire scale. Indian entrepreneurs would be well served by employing similar strategies.

4.3

Use credit as a hook

About half of our non-users claim willingness to adopt digital payments if it were to be linked to an alternative credit source. With only 3% merchants reporting an outstanding loan, we turn towards understanding the 97% who do not have loans to understand why not. Of those who did not have outstanding loans, 28% have required loans in the past but have either repaid, never applied for one, or were rejected. Bulk (62%) of the rejections were due to a lack of documents. Another recent CATALYST study²⁸ on this topic related to the same segment points to an existing credit gap, a premium placed on fast and easy-to-avail lending channels, demand for low-ticket size loans, and a certain interest in digital payment linked lending propositions. Targeting certain categories where trade credit is limited or less streamlined (eg. apparel and mobile accessories) would be prudent.

²⁸Building Hooks and Ladders: A case for integrating digital payments and lending to small merchants. http://cashlesscatalyst.org/wp-content/uploads/2018/04/enabling_digital_credit_report.pdf

4.4

Focus on merchants with a collections problem

Few fixed store merchants in our sample provide home deliveries (4%) or sell products online (1%). Digital remote payments would offer significant value to merchants who deliver goods and services to households, especially on a subscription or credit model, and therefore have need to collect subsequently. Similarly, trading merchandise on digital e-commerce platforms (in addition to offline sales channels) could lead to greater familiarity with technology enabled transactions and result in increased adoption and use of digital payment extended to offline modes as well. China serves as an example of this, with Alibaba having spawned millions of small business

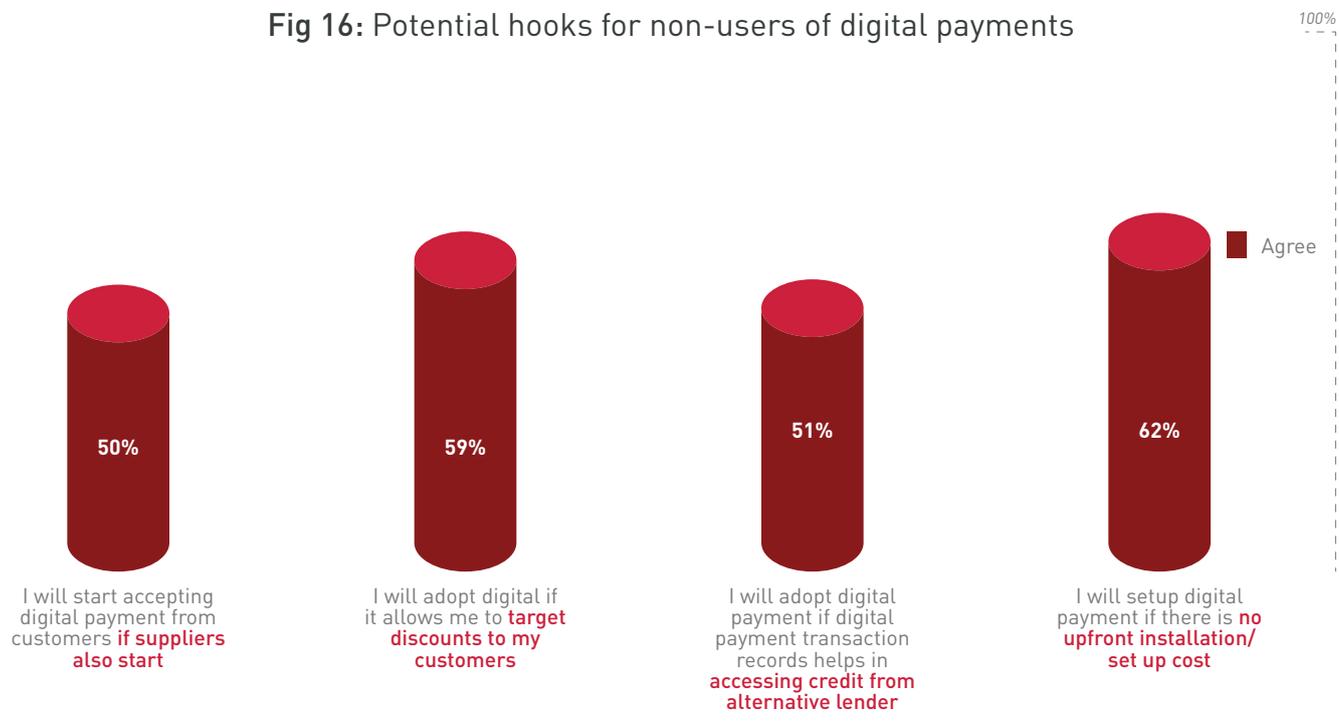
digital users through its platform. If more merchants start viewing e-commerce or digital marketing as a mechanism for business expansion (especially since 55% expect customer base expansion as the primary way of business growth), such platforms have the ability to drive digital usership.

4.5

Access merchant ecosystems through supply chains

Suppliers (like customers) are expected to wield influence on the adoption of digital payments by merchants, and about half the sampled non-users agreed to start accepting digital payments if their suppliers were to start transacting digitally too. Given that

Fig 16: Potential hooks for non-users of digital payments



merchants have fewer suppliers (relative to customers) with whom they conduct aggregated, large ticket value transactions, supply chain finance could be an important access point to the digitization of the merchant ecosystem. In CATALYST's own experiments on the ground, supplier adoption of digital payments is easier given the real operational challenges associated with cash collection. Reconciliation of operations across a fragmented retailer network as well as the significant share of working capital often expended in informal supply chain finance, make suppliers more amenable to digital payment modes.

Implications for facilitators and policymakers

4.6

Create public access to the internet

There exists a digital divide between users and non-users of digital payment modes and is evident from the 50 percentage point reported gap in access to internet.²⁹ This is further evidenced by low overall digital use of more popular infotainment apps and perhaps, even by lower smartphone penetration.

²⁹This comparison is for a population of 654 non-users, and 349 users

While the recent and massive fall in data costs should benefit digitally excluded segments, who reportedly rely primarily on data packs, the government and policymakers can also do more to facilitate affordable and reliable internet access to the poor. Provision of wi-fi hotspots may be one way of promoting digital equity. As the TRAI noted in a consultation paper,³⁰ as of 2016, India has 31,518 wi-fi hotspots whereas in comparison, top ranking countries like the United States and United Kingdom have significantly higher number of wi-fi hotspots (with 5.6 million and 9.8 million respectively). When compared with population size, India represents 1/6th of world population whereas share of wi-fi hotspots is at 1/1000.

Given that merchants are key nodes of commercial activity and the broader derived benefits from digital transformation (eg. formalization, access to financial services, broader commerce, etc) there is a case to implement public wi-fi in major commercial zones and markets. Public wi-fi may be delivered as part of a stack of services under the auspices of Smart Cities initiative.³¹ As the aforementioned TRAI Consultation paper pointed out, Municipalities and governments across the world have funded networks offering complimentary wi-fi, and policymakers in India may evaluate the benefits of providing the same. Advances in technology have also enabled delivery of public wi-fi in a secure operating environment including end-to-end encryption, user defined roaming and connection rules among other things.

4.7 Promote digital financial capabilities

Although lack of awareness, understanding and trust featured as key reasons for non-adoption of digital payments, merchants in our sample are not unfamiliar with either traditional financial or technology facilitated interactions. Over 90% reported using bank accounts regularly. Nearly 71% reported using communication apps (WhatsApp, Facebook), and 50% use phones for entertainment (movies, songs, games, news). Yet, only 20% reported using phones for business related processes. This, along with CATALYST's operational experience, underscores the need for a structural approach to building digital financial capabilities that are grounded

on specific user needs and real solutions available in the marketplace. Making potential users aware of risks and challenges they pose, and especially providing some 'guardrails' that can instill reassurance during early usage periods, could greatly help. Solution providers can also support this through better design and communication of responsible servicing policies as well as in-product nudges and behavioral triggers that generate awareness and trust for new digital financial transactions beyond just marketing and promotional messages. Moreover, understanding the ease of use of popular communication and entertainment apps could provide insights to designing products that minimize disruption and facilitate wider adoption.

4.8 Build preference for digital across all transaction sizes

Merchants show preference for cash for small ticket size transactions and non-cash payments solutions for larger ticket sizes. This presents an interesting opportunity for awareness interventions and incentives regarding the utility of digital payments to manage small change, especially when it changes hands at a high frequency. The recent policy move to waive fees for small transaction amounts is helpful as it removes bias against using digital for lower end transactions (which comprise the bulk of volume) and paves the way to more trials.³²

It also beckons product design innovation around this frequently recurring 'micro' pain point that can quickly aggregate into significant value loss for a merchant. While neither loose change sourcing nor cash management is reportedly a perceived issue, there may well be hidden unobservable biases that can be addressed through creative strategies.

On the other hand, with increasing transaction size, merchants steadily prefer cheques on account of the inherent ability to provide records, security, and greater control on payment timing. There is room for digital transactions to take share from cheques with the right product features and performance, a wider digital payment network, and an overall enabling environment.

³⁰<https://ruckus-www.s3.amazonaws.com/pdf/other/role-of-public-wifi.pdf>

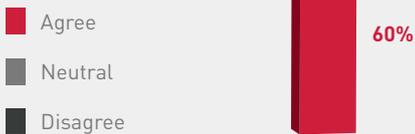
³¹https://www.trai.gov.in/sites/default/files/Wi-Fi_consultation%20Paper_13_july_2016.pdf

³²Government of India has waived merchant discount rates for all digital transactions under Rs. 2000 in value. <http://financialservices.gov.in/sites/default/files/Subsidizing%20MDR%20by%20Govt.pdf>

Digital payments in a post GST world

Nearly 67% of merchants report filing GST on their own, and nearly 70% merchants agree that GST would prompt them to shift a large part of their informal business to formal transactions. This paves the way for digital payment service providers to make such transitions for merchants and filing for GST easier. 60% of merchants agree that digital payments will make GST compliance easier.

Fig 17: Can digital payments make GST compliance easier?

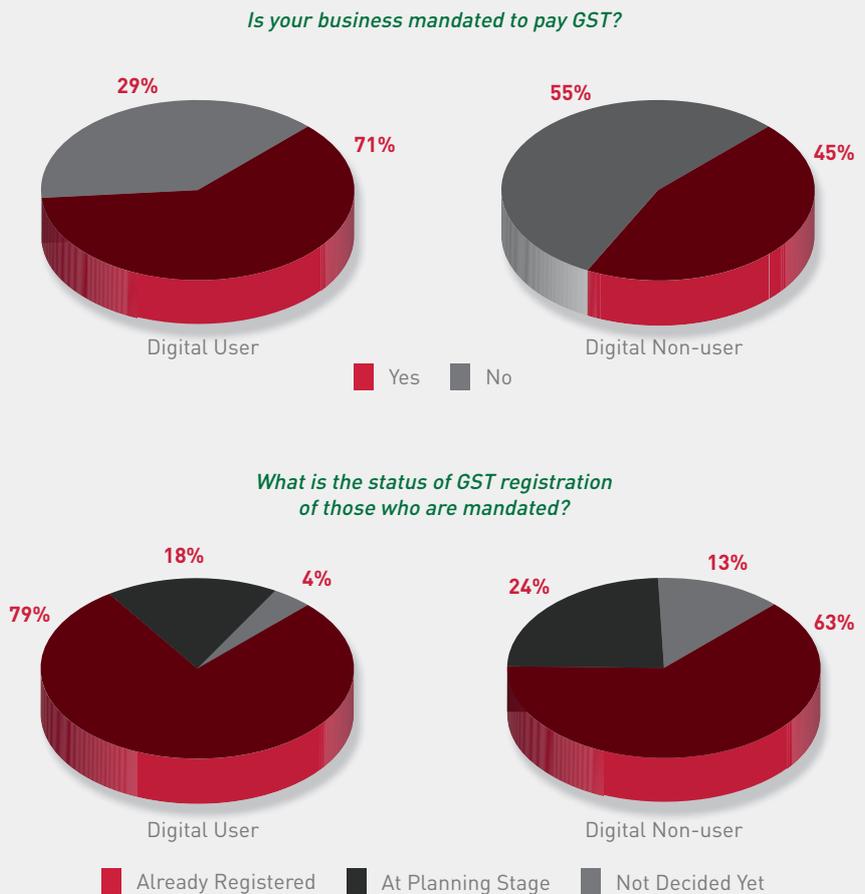


Merchants who expect a positive impact of GST said it would bring in transparency in taxes (67%), lower the cost of doing business (14%), and reduce corruption (7%). It is interesting to note that all listed positives are to the business environment, and not necessarily specific to running the business itself, perhaps on account of recency of GST rollout at the time of the survey. Merchants who expect a negative fallout said some products would become more expensive (38%), there would be no major reduction in taxes (31%), and GST would result in learning and adoption challenges for the entire ecosystem (20%).

GST and fixed store merchants

Under the new GST Act, businesses earning more than Rs 20 lakh annually are mandated to register and pay GST.³³ 46% of merchants sampled are not mandated to pay GST, while 54% are. A majority of these mandated have already registered. Non-users are making slower progress with getting registered and some were still planning or deliberating on completing their GST registrations at the time of our survey. Policymakers could consider providing incentives for non-using merchants who are registered to adopt digital payment systems. One possibility is paying out input credits or refunds through e-payment mechanisms that feed into interoperable accounts. Another is promulgating incentives, for example in the form of tax rebates, for a greater digital footprint. The cost of such incentives would be offset by the added benefit of having an increased number of digitized and formalized businesses in the economy, which will not only contribute more government taxes in the future, but also reduce the cost of cash logistics in the ecosystem.

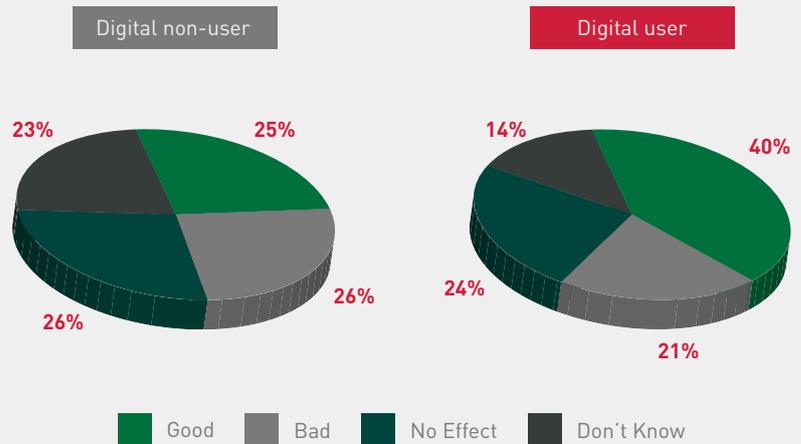
Fig 18: Businesses mandated to pay GST



³³<https://www.indiafilings.com/learn/taxable-person-under-gst/>

Fig 19: Perceptions of impact of GST

How do you perceive the impact of GST on your business?



Nearly 40% of users perceive GST to be beneficial for their business, while only 25% of non-users perceive such gains. Non-users are evenly distributed in their perceptions of the impact of GST: 25% expect positive results, 26% fear negative fallout while 26% and 23% do not expect any effect or do not have any expectations, respectively. Users may be buoyant about the positive effect of GST as they have taken steps towards going digital and formalizing their businesses.

It is interesting to note the influence of suppliers in the digital payments ecosystem. 42% of users report that their suppliers have expressed interest in moving from cash to digital because of GST. For non-users, this was a more modest 20%.

Fig 19: Are suppliers keen to shift to digital because of GST?

Have your suppliers expressed their interest to move from cash to digital due to the implementation of GST?



AN FSM CASE STUDY

(Mr) ABC operates a fixed store in the apparel retail sector. He has been running this business for more than 15 years. His business, XYZ Cut Piece Shop, has grown over these years, and now operates out of a two storey building. With the growth, ABC observes that he has become bolder in his inventory order size, to meet his larger turnover of around Rs 4.5 lakhs a month – the median annual sales recorded in the CATALYST-PRICE surveys. ABC has also set up a section in the store for customized tailoring, thereby providing convenience and value addition for customers who purchase cloth material to also avail tailoring services at a nominal price. Based on field observations, it appears to be an effective strategy to attract and retain customers.

On a regular day, the store is visited by 20-25 customers of whom 10 make a purchase. Average transaction size is Rs. 700 (ranges from minimum of Rs. 250 to Rs. 1,150). Self-reported expenses that ABC incurs every month include electricity charges of Rs. 8,000 – 10,000, store maintenance of Rs 2,000, rent for the shop space of Rs. 27,500, and salary for the salesman, Rs. 15,000. Apart from these expenses, there are inventory costs, and a gross margin of 20-25%. ABC's self-declared monthly net profit is around Rs. 30,000. As this case study was recorded during a festive season, it is likely that ABC may have had some recall bias and reported higher values given that the apparel sector usually experiences booming sales during festivals in India.

ABC's store is open to all digital payments. He allows customers to pay using cards, for which he did not have to incur installation costs, but pays monthly rental and a Merchant Discount Rate (MDR) per transaction. The variety of payment options available at the store is clear to a customer given the visible advertisements on display at the billing counter.

ABC manages all cash and digital payments processed in the store. He uses mobile-wallets for business and personal purposes and seems to be comfortable with the technology. We observed that he was open to using PoS or wallets when customers requested for those as modes of payment. ABC estimates that approximately 30% of the customers pay via cards, and a very small portion pay via mobile-wallet. The rest of the customers pay cash.

ABC maintains a register for daily procurement and sales. In addition, the owner maintains a bill book and provides receipts for purchases of all ticket sizes when requested by a customer.

ABC is a seasoned businessman, dealing with 15-20 known suppliers on a revolving credit cycle. Around 80% of supplier payments are done by cheque, while 20% are in cash. He is aware and uses non-cash modes for payment transactions.





Inclusive Cashless
Payment Partnership

in partnership with



H-5, Second Floor, Green Park Extension, New Delhi - 110016
011-49096529 | info@cashlesscatalyst.org | www.cashlesscatalyst.org

