







### 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.

# Acknowledgements

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# From the CATALYST leadership team

The core objective of the CATALYST project in Jaipur was to demonstrate innovative and viable business models in digital finance, which target low income and hitherto excluded populations, especially small offline businesses. With this aim, CATALYST has incubated fintech businesses, and worked with multiple stakeholders across the ecosystem to deploy experiments to validate or tweak real life propositions. A key stakeholder in this process is the customer (i.e. the user of the solution), and this fact has been reinforced in many different ways. Global data shows a huge gap between access and usage of financial services and, in working on the ground, we see multiple barriers to using services ranging from product gaps, low user capabilities and regulatory hurdles.

At a fairly early stage in the CATALYST journey, we had the opportunity to attend the Consultative Group to Assist the Poor's (CGAP's) customer centricity learning event in Mahabalipuram. The event also showcased one of our incubatee companies, Bix42 (formerly MeraPaper), selected for its customer-centric approach by the event organizers through a call for customer-centric business models. This experience and the structured tools presented at the CGAP learning event convinced us that we are on the right path, and sparked the idea of applying customer-centric tools and creating a playbook adapted to the specific fintech context.

We are aware that the idea of digital finance becoming customer centric is not new. Most stakeholders in the responsible finance space have been speaking about it in various forms. Numerous global stakeholders have worked on this in various ways.

Across the sector, we see common themes emerging which revolve around taking ownership for the impact on the customer; ensuring that redress, if required, is speedy; and services offered are safe, reliable and do not bring in any form of uncertainty to customer lives. We think it is safe to say that the objective of everyone working in the financial inclusion industry is to improve lives and ensure inclusive growth through the transformative power of finance. We want customers to trust the financial services they access, and see value in their daily lives.

There are multiple tools on customer centricity, but the experience of applying these and learning from insights provides contextual information for others who operate

in the same space. We therefore think there is merit in collating the toolkits applied in the CATALYST world, speak about our experience of using these and provide these insights and resources to other fintechs that are looking to serve poor customers in India. In this publication, we provide a compendium of customer-centric tools we used from the CGAP Customer Centric guide, the Do It Yourself (DIY) toolkit developed by Nesta and Quicksand, apart from other management tools that are used by businesses.

We hope that this will help the next wave of fintech innovation in this sector, helping build responsible solutions that engender value and trust as India sees the next 500 million customers who begin transacting digitally.



Similarly, the Groupe Spéciale Mobile Association (GSMA) released the following eight principles as part of the proposed code:1

The code's eight principles address common challenges:

1

Equip and monitor staff, agents, and entities providing outsourced services to ensure that they offer safe and reliable services

2

Develop mechanisms to ensure that complaints are effectively addressed and problems are resolved in a timely manner 3

Communicate clear, sufficient, and timely information to empower customers to make informed decisions

4

Maintain effective mechanisms to combat money laundering and terrorist financing 5

Ensure reliable service provision with sufficient network and system capacity

6

Take robust steps to ensure the security of the mobile network channel

7

Collect, process, and/or transmit personal data fairly and securely; and

8

Safeguard customer funds against risk of loss



For instance, according to CGAP, there are five priority areas in which Digital Financial Services (DFS) leadership needs to take responsibility so customers perceive value:<sup>2</sup>

1

Improve service reliability and robustness

2

Make customer interfaces more user friendly

3

Strengthen agent quality, management and liquidity

4

Combat customeraffecting fraud (e.g., use data to identify suspicious transactions and inform customers instantly); and 5

Improve handling of complaints, queries and redress in a speedy manner



The Better Than Cash alliance came up with its own set of guidelines for digital payments based on extensive stakeholder engagement over several years. These are:<sup>3</sup>

1

Treat clients fairly

2

Keep client funds safe

3

Provide client recourse

4

Support client access and use through interoperability

5

Ensure product transparency for clients

6

Protect client data

7

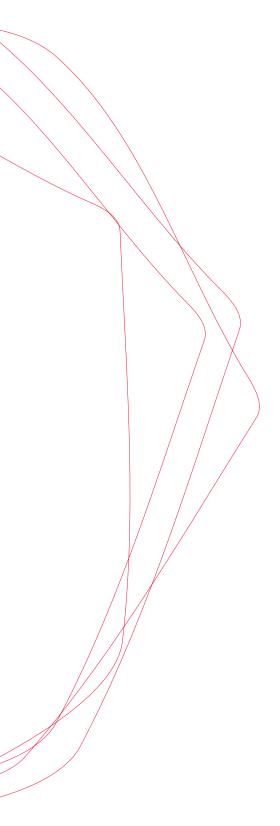
Take responsibility for providers of client services across the value chain; and

8

Design for client needs and capability

<sup>&</sup>lt;sup>2</sup>http://www.cgap.org/sites/default/files/Focus-Note-Doing-Digital-Finance-Right-Jun-2015.pdf

<sup>&</sup>lt;sup>3</sup>https://btca-prod.s3.amazonaws.com/documents/212/english\_attachments/DigitalGuidelines-withMemo-MECH-Update1d.pdf?1504714863



# Note from the authors

Fintechs are different from traditional financial institutions in that they are more agile with their technologydriven core and in India, often rely on partnerships to deliver financial services. Technology is as much of a tool as finance. And while it offers a number of opportunities, there are also a number of challenges that come with catering to segments of customers who are accessing financial systems for the first time, may not be familiar with digital environments or face continuous infrastructure challenges. With the surfeit of data in India at the moment, fintechs have an immense opportunity to meet the needs of the customer segments they choose, and offer great value if they choose to be customer centric. In an environment that is rapidly seeing a rise in competition, we believe that customer centricity can be a powerful differentiator.

Since playbooks are meant to be fun, the design is non-linear. This is also intentional since we recognize that fintech entrepreneurs are busy people who don't want to spend time searching for solutions. You can skip to the section you think is relevant, reference and apply tools or learn from insights quickly. The language is accessible. We hope these are factors that will encourage the use of the playbook, and start your fintech journey to customer centricity.

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#### Relevant tools

#### Who would find it useful?4

### Section 3

Merchant customer tango

Digital financial inclusion through merchants: are you ready?

Merchant relationship managers, channel managers, training team

### Section 5

Learn from customers

Segmentation, data analytics, customer journey mapping

Customer insights, product development, any customer facing team, MIS/data analytics function

### Section 6

Design and deliver

Customer experience tools (CGAP toolkit), Yale 4P framework to design nudges, principles for UI/UX

Process development teams, human capital, product teams, senior management, customer insights teams

### Section 7

Organize for delivery

Agent channels

Human capital, agent relationship managers, agent sales teams

### Section 8

**Partnerships** 

Structuring effective partnerships, partnership canvas

Business development, strategic partnerships team, core strategy team

### Section 9

Customer value

Promises and potential toolkit, learning loop toolkits

Impact teams, finance teams

### Section 10

Customer centric business model

Building the business with the customer at the core Metrics that capture value to customers Business planning team, senior management, impact measurement team, finance teams, MIS team

<sup>&</sup>lt;sup>4</sup>Indicative list which could vary depending on each organization's specific structure, hierarchy, responsibilities, etc.





Finance and economic development are inextricably linked.<sup>5</sup> Financial systems play a key role in transferring resources across time and states of the world and, by doing so, they help people attain their life goals and cope with the uncertainties of life. However, to completely benefit from the advantages that finance has to offer, people must be able to access and use a range of financial services. Traditional financial institutions have lagged in delivering all that customers need, resulting in an ongoing gap between access and usage of financial services.

There is emerging evidence that the use of digital financial services, including mobile money services, payments and other fintech (financial technology) applications, has potential development benefits for financial inclusion.<sup>7</sup> This is especially true for customers who have access to formal financial services but use them rarely. With an increase in the use of mobile phones and the internet, we are beginning see the gap reduce between access and usage of financial services. There are a number of reasons for this reduction. First, women find it easier to transact from their homes instead of travelling far to bank branches; a fact which digital financial services enables. Second, the ability to transact outside traditional banking hours is not just convenient, it reduces the cost of transactions since customers no longer have to skip work to stand in long queues during work hours. In the developing world, the share of account holders sending or receiving

payments digitally, increased from 57 percent to 70 percent between 2014 and 2017.8 This positive progress should not, however, distract us from the stark reality of people that continue to remain excluded from formal financial services. There will always be segments of the population that are vulnerable and may not find digital financial services the best choice. That being said, there is considerable potential to lower cost of delivery and increase usage for customers who have access to formal financial services but a limited digital footprint.

Fintech companies have a critical role to play in extending financial services to the last mile. They operate at lower costs, are more agile and flexible compared to traditional financial institutions. However, when catering to low-income segments that are not completely familiar with digital environments, there are a number of factors to keep in mind to ensure customers benefit from the transaction, and their trust in financial services is deepened, so they continue using financial services.

Through this playbook, we attempt to identify opportunities and provide a compendium of tools and caselets that can help in this endeavor. The potential that digital finance and fintech models hold is rapidly evolving as newer challenges emerge. This publication aims to provide pointers to delivering value to both customers and fintech/digital financial solution providers, as they cater to the last mile.

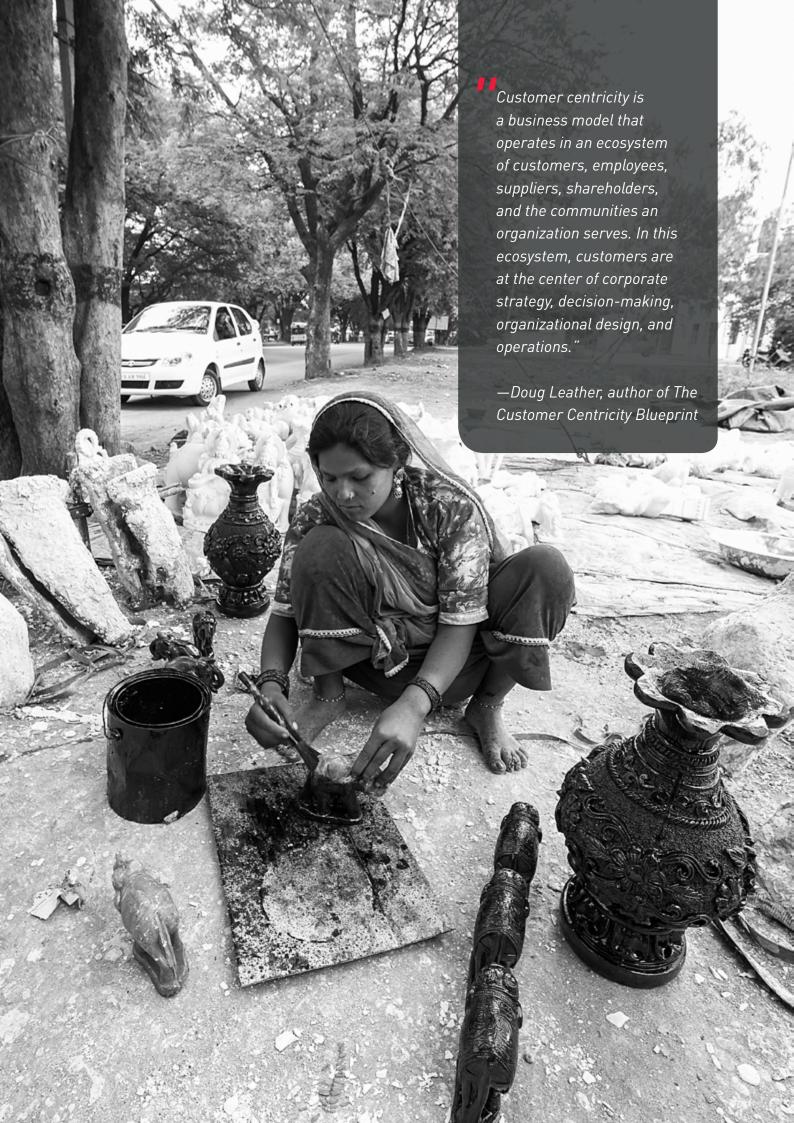
<sup>8</sup>Ibid.



<sup>&</sup>lt;sup>5</sup>Shiller, R. (2013). Finance and the Good Society (New in Paperback). Princeton: Princeton University Press

<sup>&</sup>lt;sup>6</sup>Merton, Robert C. "A Functional Perspective of Financial Intermediation." Financial Management 24, no. 2 (1995): 23-41. http://www.jstor.org/stable/3665532

<sup>&</sup>lt;sup>7</sup>Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. The Global Findex Database 2017: Measuring Financial Inclusion and the Fin- tech Revolution. Washington, DC: World Bank. doi:10.1596/978-1-4648-1259-0. License: Creative Commons Attribution CC BY 3.0 IGO.



### 1.1 Fintech in India

There are few countries besides India that have seen a growth spurt in fintech models in the past five years. In India, this rapid growth can be attributed to the policy and regulatory environment as well as factors such as high adoption of smartphones (India is the world's second largest smartphone market), increasing investment flow in fintechs and an increasingly data rich environment.9 Since 2014, the Pradhan Mantri Jan Dhan Yojana (PMJDY) has effectively doubled the share of adults that have bank accounts from 20 percent to about 80 percent. 10 India Stack with its open application programming interfaces (APIs) built around the biometric-enabled Aadhaar identification system has spurred digital innovation. The country has reportedly crossed a billion mobile subscribers, with a rapidly growing smartphone user base. 11 With the launch of the Unified Payments Interface (UPI), there is a huge potential to increase financial inclusion using digital payments as a lever. However, digitization in India remains low, and restricted to higher income customers. According to recent data shared by the Reserve bank of India (RBI), only 14 percent of digital transactions in the country occur outside the banking ecosystem. 12 Further, these transactions are more common among customers who are already using (credit or debit) cards or basic banking services. This provides both an opportunity and a challenge. We posit that behind the challenge lies the absence of focus on the customer.

1.2 The need for customer centricity

Customer centricity<sup>13</sup> is all about putting customers at the heart of delivering financial services, and ensuring solutions are available when and where customers need them. <sup>14</sup> The poor lead complex lives and, for them, finance is about day-to-day management of meager resources. 15 However, the supply of financial services seldom reflects a deep understanding of customers' lives, in design or delivery. Most interfaces assume the financial service provider knows best and the customer will follow passively. In the digital world, with limited avenues for a human connect, the environment can be seen as remote and unfriendly with lack of protection or redressal avenues when things go awry. For first-time users of formal financial services, this can be a daunting experience and reason enough to stay away.

Digital financial services can also pose a risk to customers, especially if they belong to the low-income strata and lack experience, often translating into financial loss.

These experiences include the inability to transact due to network/service downtime, insufficient agent liquidity or float, complex and confusing user interfaces, non-transparent fees and other terms, inadequate data privacy and protection, fraud and difficult customer recourse. <sup>16</sup>

Poor customer experience, when directly faced with any one of these challenges or when heard through word of mouth, results in customers limiting Digital Financial Services (DFS) uptake or stopping use altogether.

For financial service providers, lack of use translates into absence of revenue and business losses. A Consultative Group to Assist the Poor (CGAP) high-level analysis indicates that it globally costs financial service providers US\$13.3 billion to open bank accounts; these funds cannot be recouped unless they are used. To For fintech providers, which face low entry barriers, a focus on developing services that are relevant and used by customers continuously is not just an opportunity but a necessity if their businesses are to survive.

<sup>&</sup>lt;sup>17</sup>Customer Centric guide: An executive summary, Coetzee, G., CGAP 2017. See: http://live-customers-guide.pantheonsite.io/sites/default/files/resource/2018/07/CGAP%20C-CGuide-FinalLowRes\_Web.pdf



<sup>&</sup>lt;sup>9</sup>http://blog.ficci.com/fintech-india-landscape/7000/

<sup>&</sup>lt;sup>10</sup>Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. The Global Findex Database 2017: Measuring Financial Inclusion and the Fin- tech Revolution. Washington, DC: World Bank. doi:10.1596/978-1-4648-1259-0. License: Creative Commons Attribution CC BY 3.0 IGO.

<sup>&</sup>lt;sup>11</sup>https://www.forbes.com/sites/saritharai/2016/01/06/india-just-crossed-1-billion-mobile-subscribers-milestone-and-the-excitements-just-beginning/#278d98eb7db0

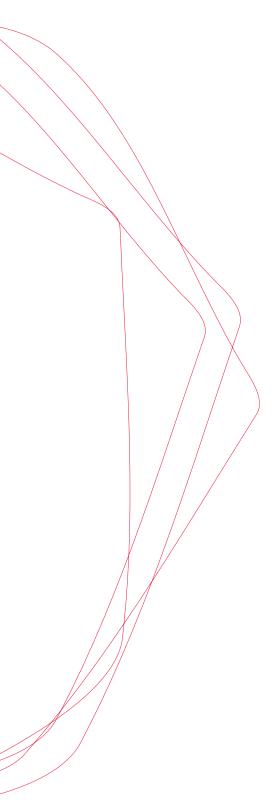
<sup>&</sup>lt;sup>12</sup>https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/rbis-call-for-digital-payment-ideas-kindles-hope-for-aspirants/articleshow/64502274.cms

<sup>&</sup>lt;sup>13</sup>CGAP Customers Guide (2018): Customer-focused approach include: a) A granular understanding of customers; b) Financial solutions designed specifically for customer needs; and c) an organizational setup that delivers through a customer-centric business model.

<sup>&</sup>lt;sup>14</sup>Monique Cohen in her blog post for the Center for Financial Inclusion at ACCION points out the maxim that dictates use of financial services, whether by the rich or poor. https://cfi-blog.org/2017/12/04/i-need-cash-when-i-need-it-where-i-need-it-how-i-need-it/#more-24679

<sup>&</sup>lt;sup>15</sup>http://www.cgap.org/publications/money-decisions-and-control

<sup>&</sup>lt;sup>16</sup>See CGAP focus note: http://www.cgap.org/sites/default/files/Focus-Note-Doing-Digital-Finance-Right-Jun-2015.pdf



# 1.3 Setting the context for this publication

This publication is addressed to fintech companies in India who seek to deliver digital financial services to the last mile. Through this publication, we seek to emphasize the role of customer centricity in financial inclusion, and how fintech models can create value for customers. We begin with outlining the CATALYST approach of working with ecosystems, our observations from these ecosystems and lessons learned that can be extrapolated to the broader fintech industry in India.

Fintech, essentially the application of technology in financial services, has globally brought about a radical transformation in the traditional financial services sector. It has redefined the development and delivery of financial products and services, and the way in which markets are structured. Innovators in the fintech space are expanding the reach and scope of financial services via digital platforms<sup>18</sup> to provide seamless and innovative services for the unbanked population, thereby promoting the goal of digital financial inclusion.19

The fintech landscape in India is growing by leaps and bounds, largely due to support provided by the government in digitizing financial

systems. In order to create the building blocks for a digital financial infrastructure for financial inclusion, the Government of India launched a major drive by introducing the JAM (Jan Dhan, Aadhaar and Mobile) trinity along with the Digital India Campaign which laid the foundation for a digital India ecosystem. The JAM trinity is a step towards financial inclusion with the Jan Dhan Yojana scheme aiding in opening of bank accounts, Aadhaar helping in direct biometric identification of disadvantaged citizens, and mobile phones allowing direct transfers of funds into their accounts.<sup>20</sup> This policy push resulted in a dramatic rise in account ownership, from 35 percent in 2011 to 80 percent in 2017.21 However, despite the massive push provided by the Government of India, almost half of the account owners have remained inactive in the past year, indicating that financially excluded customers in last mile segments are either

The tepid results, despite concerted efforts from the government, in conjunction with the inherent agency problem<sup>23</sup> of firms compels us to rethink how to bridge the gap between access and usage, and assess how financial services offer value to customers. The answer lies in adopting a customer-centric approach. As fintech companies deepen their understanding of customer segments, their needs and how to deliver at a lower cost and higher speed, they create a strong differentiation from competition and help solve the last mile challenge.

unserved or underserved.22

<sup>&</sup>lt;sup>23</sup>However, according to Peterson K. Ozili, an agency problem emerges as profit maximizing objectives of firms are not in tandem with the welfare maximizing objectives of DFS users. According to him, this conflict of interest can be reduced and shifted towards competition among digital financial providers if: a) the top management of digital financial providers make decisions, and take actions, that create better value for digital finance user; and b) customers, in this case digital finance users, can easily switch between digital finance providers that do not offer the customized services they want to what they do want; reiterating Ranjay Gulati's view that "where customer dynamism necessitates sophisticated and flexible responses, outside-in thinking is the ultimate goal – and the way to keep companies healthy."



<sup>&</sup>lt;sup>18</sup>Ideally, there are three key components of any DFS: a digital transactional platform, retail agents, and use by customers and agents of a device – most commonly a mobile phone – to transact via the digital platform.

<sup>&</sup>lt;sup>19</sup>CGAP defines digital financial inclusion as "digital access to, and the use of, formal financial services by the excluded and underserved population."

<sup>&</sup>lt;sup>20</sup>http://pib.nic.in/newsite/PrintRelease.aspx?relid=136865

<sup>&</sup>lt;sup>21</sup>http://pib.nic.in/newsite/PrintRelease.aspx?relid=155418

<sup>&</sup>lt;sup>22</sup>Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. The Global Findex Database 2017: Measuring Financial Inclusion and the Fin- tech Revolution. Washington, DC: World Bank. doi:10.1596/978-1-4648-1259-0. License: Creative Commons Attribution CC BY 3.0 IGO.



CATALYST is an initiative funded by the United States Agency for International Development (USAID) that aims to expand DFS at the last mile by targeting two primary protagonists: merchants and customers. Working through multiple ecosystems, CATALYST's approach has been to incubate fintech solutions that address gaps for the last mile, influence policy and inform the financial inclusion sector on challenges and opportunities at the last mile. Working in the city of Jaipur, CATALYST has focused on merchants and customers in dairy, pharmaceutical and Fast Moving Consumer Goods (FMCG) supply chains and low-income customers in urban slums, enabling delivery channels such as bank customer service points (CSPs), a public-private partnership like the eMitra channel, and incubating business models that provide DFS to small merchants and low-income customers.

Underlying the CATALYST approach are concepts of inductive data collection as well as triangulation of data. Inductive data collection allows discovery of the "unexpected" as well as continuous learning from the

setting and room to adapt accordingly. Triangulation refers to the use of multiple methods and data sources, to cross check and validate the findings. CATALYST has used experts and an interdisciplinary team to allow different perspectives.

The ecosystem approach is core to CATALYST's philosophy since it allows systemic change which, when successful, results in sustainable impact in the long run. CATALYST believes that most challenges with digital payments remain unresolved due to the complexities that arise from interconnected or interrelated issues, all of which have to be addressed at the same time. This aligns well with CGAP's approach to customer centricity which looks at a business model that operates in an ecosystem of customers, employees, suppliers, shareholders and the communities that a financial service provider serves. In this ecosystem, customers must be at the center of corporate strategy, decision making, organizational design and operations.



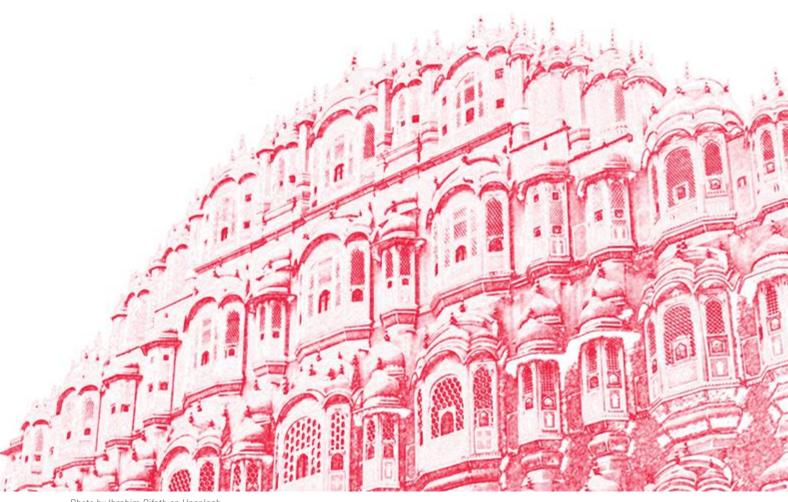


Photo by Ibrahim Rifath on Unsplash

# 2.1 Why Jaipur?

The choice of Jaipur was driven by several factors like the financial inclusion index of the city, population density, government support and others. Two factors stood out which made the choice of the city conducive for starting a digital payments lab:24

1. The presence of infrastructure in the city for digital transactions: a preliminary survey revealed that the city had consistent power supply, a high penetration of mobile phones (~94 percent of the households had at least one mobile), internet access (~51 percent had access to internet via mobile or computer), high phone network connectivity, and

- a high presence of automated teller machines (ATMs). This was accompanied by high access to bank accounts; and
- 2. Irrespective of the income group, customers primarily chose cash for transacting, ranging from purchase of groceries to utility bill payment, purchase of clothing, etc.

When asked in initial surveys, about 65 percent of the merchants expressed an interest in learning more about digital payments. This interest combined with existing infrastructure and the potential to convert customers made Jaipur an ideal city to test digital payment solutions. While much of CATALYST's field work has been restricted to the city of Jaipur, the insights we draw can be applied to similar emerging cities and towns across India.

<sup>&</sup>lt;sup>18</sup>For more details, see: https://cashlesscatalyst.org/jaipur-posts/decoding-jaipur-digital-payments-landscape/





CATALYST's work focused on digital payments, which form the neural pathways for financial systems. The reason to focus on digital payments ecosystems was quite intuitive. Most projects on digitization look at digitizing payments, but rely heavily on cash in and cash out points. Working through the ecosystem allows the opportunity to digitize money, i.e., receive payments digitally, spend digitally, borrow digitally and repay digitally. Ideally, this is best done by the government and other large stakeholders since wages to low-income households have to be paid digitally as a first step. CATALYST sought to address this in various ways. First, the portfolio included working with an urban slum cluster to ensure access to bank accounts and cash in points existed. One of the incubated companies also provided cash in points through a business correspondent (BC) model. Second, a focus on providing merchants with digital financial solutions where customers could transact. This included a partnership with the Government of Rajasthan to pay utility bills, etc., through eMitra<sup>25</sup> points. Third, working through supply chains to address uptake issues. And lastly, working with a core set of incubated

businesses that helped provide insights into customer behavior and uptake of services provided.

CATALYST conducted a survey<sup>26</sup> in Jaipur in mid 2017, which revealed that over two-fifths of the merchants surveyed had tried some form of digital payments. However, only a third reported sustained use, a fraction of the overall volumes. The most popular payment service was closed-loop wallets, chosen by nearly three-fourths of those surveyed. A little less than a third used cards, and about 25 percent used internet banking. Only 2 percent of merchants utilized all three types of payment services. Checks dominated for larger transactions, while cash was used for small ticket sizes. Only 8 percent of overall customer transactions by value were executed digitally, while an even smaller 4 percent of the supplier payment values were paid digitally.<sup>27</sup> Merchants stated a low customer demand as the biggest reason for not using digital payment solutions, followed by a lack of awareness and the fear of being cheated in that order.<sup>28</sup> Therefore, it is essential to provide value to both merchants and customers.29

<sup>&</sup>lt;sup>29</sup>See: http://www.cgap.org/sites/default/files/Digitizing\_Merchant\_Payments\_What\_Will\_It\_Take.pdf



<sup>&</sup>lt;sup>25</sup>Committed to quick and convenient delivery of citizen services, Government of Rajasthan set up the e-Mitra platform of e-Governance way back in the year 2004. Currently, over 250 G2C and B2C services are being provided through this platform across all rural & urban areas in 33 districts of the State. These services include utility bill payment, application & digitally signed certificate services, banking, tele-medicine, e-commerce services, etc and new services are being added to its fold regularly. For details see http://www.emitra.rajasthan.gov.in/content/emitra/en/Aboutus/Aboutemitrabrochure.html

<sup>&</sup>lt;sup>26</sup>See: Mapping the Merchant's Mind: An analysis of digital payments behaviors by fixed store merchants in Jaipur, Malick, Badal and Rajesh Shukla, PRICE-Catalyst report 2018 < http://cashlesscatalyst.org/wp-content/uploads/2018/07/Price-Report-Short-20-June-edited-min.pdf >

<sup>&</sup>lt;sup>27</sup>Digital here refers to payment through a mobile wallet, card, Point of Sale (PoS) terminal, internet banking or mobile application.

<sup>&</sup>lt;sup>28</sup>Price-CATALYST report 2018, Malick, B. and R. Shukla, ibid.



1.

Are the customer and merchants aware of the various payment services available in the market?

If not, build

awareness

4.

Do what the customers want to use and the merchants choose to offer coincide?

If not, understand why customers choose a solution and why merchants don't want to offer it (explore for incentives, ease of use, settlement periods, etc.) 2.

Do customers and merchants remember to use the payments service (i.e., top-of-mind recall)?

If not, create a campaign to make sure it is top of mind

5.

Are customers and merchants willing to pay for the service (i.e., they see the fee as reasonable given the value they derive)?

If not, conduct surveys to understand what price points seem suitable 3.

Do customers and merchants know how to use the payments service (i.e., it is easy to use and not daunting)?

If not, provide handholding support

6.

Do both customers and merchants want to use the payments service (i.e., it saves time, effort, is safer, cheaper or has some other value/ incentive)?

Understand the benefits of using the payments service and check if these create a differential value

7.

Are the prerequisites for the transaction met, i.e., is there a payment/acceptance instrument that functions at both ends which means:

Customers have funds in their accounts

If not, understand why (not enough funds, not enough cash in points, etc.) There is a customer authentication mechanism, i.e., PIN number, one time password (OTP), mobile phone or biometric authentication

If not, ensure this is built in and build customer capability

on its use

Merchants have the hardware/power/ connectivity to accept payments digitally

If not, provide these to merchants at an affordable cost The chosen service has a low rate of failure:

Follow up on failure and make sure it doesn't cross a preset threshold

(Adapted from the CGAP publication 'Digitizing merchant payments: what will it take?' Zetterli,

Peter and Rashmi Pillai,

http://www.cgap.org/sites/default/files/Digitizing\_Merchant\_Payments\_What\_Will\_It\_Take.pdf)





CATALYST found that, across all ecosystems, whether it was working with small merchants or low-income households, awareness of various digital payment options was low, acting as the biggest barrier to usage. With the urban poor, the CATALYST team also found that some customers did not have access to bank accounts.

A series of experiments was conducted to map the possible pathways customers and financial service providers can follow to enable access and build awareness, which we outline here along with key learnings on designing nudges to change behavior.

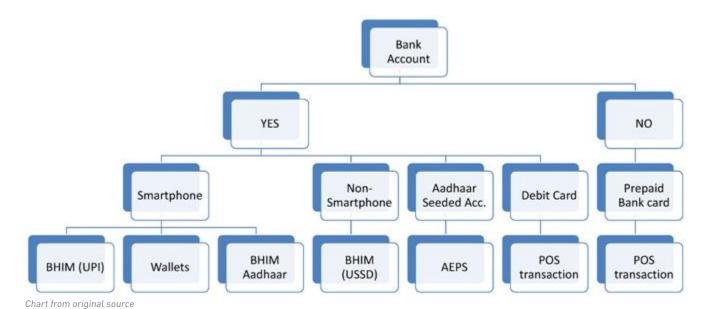


Figure 1: Modes of digital payment in India<sup>30</sup>

 $<sup>^{\</sup>bf 30} {\it http://niti.gov.in/writereaddata/files/Step-by-step\_presentation\_on\_digital\_payments-English.pdf$ 

# 4.1 The urban poor: falling between the cracks

India is going through a phase of rapid urbanization. By 2030, more than 400 million people will be living in cities in India. One in every six urban households in India lives in a slum currently, and this number is expected to increase exponentially by 2030.<sup>31</sup> Bhatta Basti situated near Shastri Nagar in Jaipur, Rajasthan, consists of an estimated 10,000 low-income households. It is a migrant settlement with a population of over 45,000 persons. Residents in the region are

mainly engaged in wage labor, micro home-based manufacturing activities or running petty shops.

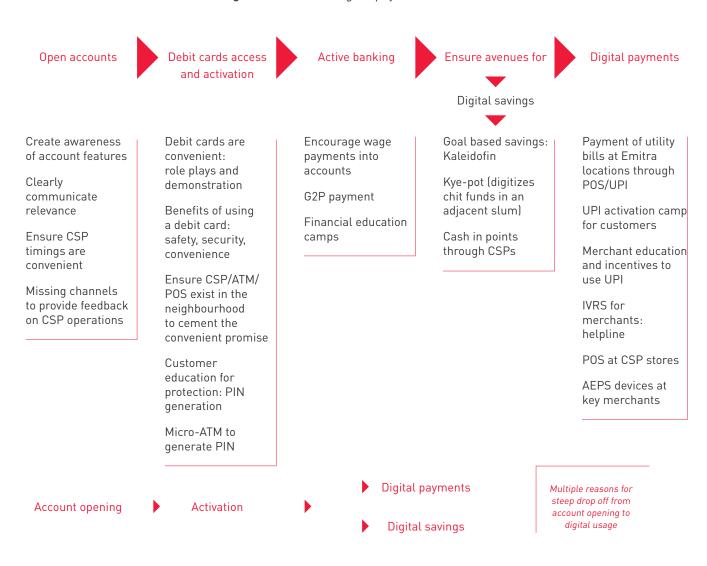
Average personal weekly income per household is around INR 1,750 with four dependents for every two earning persons. This, coupled with the fact that a majority of individuals are employed as daily wage laborers, means that income inflows are often irregular, seasonal and paid in cash. A needs assessment conducted by CATALYST showed that saving habits in this community are irregular and dependent on informal and noninstitutionalized modes of savings. One in every two primary earners in a household would use informal saving mechanisms such as jars in their homes. Only about 39 percent of the primary earners had any kind of

savings; 48 percent of the households relied on their social circle to make critical financial decisions.

Every household had access to at least one bank account, which was usually in the name of the male head of the family. However, 81 percent of these bank accounts had not been used in the 30 days prior to the survey conducted by CATALYST. More than 70 percent of the households had access to only feature phones. Only 6 percent of the households had sufficient information on digital payments and how to use them.

The CATALYST team created a map that outlined the various steps to onboard these customers to a digital platform (Figure 2).

Figure 2: Modes of digital payment in India



<sup>31</sup> http://in.one.un.org/poverty-and-urbanisation/



# Point to ponder for fintechs:

What is the information needed to decide possible pathways customers adopt to using the service provided? Create a visual map to identify areas where some handholding may be needed.

At each stage, a series of partnerships, process maps and experiments were designed to achieve the stated objectives, which included customer handholding to open bank accounts, building customer capability, ensuring CSPs provide high quality service, establishing ways for grievance redressal, and building trust in digital financial systems using community ambassadors.

On the merchant end, a concerted effort was made to introduce multiple digital solutions and channels on which customers could transact,

merchant education and handholding, a set of incentives to get merchants to begin transacting, and an interactive voice response (IVR) system was set up to provide information to merchants over phone.

As a result of the concerted efforts, over 1,500 accounts have been opened in Bhatta Basti and digital transactions are beginning to take place. The long-term impact of this initiative remains to be seen, but the pathway to transition an unbanked customer to a digital platform is being established.<sup>32</sup>

<sup>&</sup>lt;sup>32</sup>CATALYST will be publishing a more detailed report on findings and experiences from working with the urban poor population in a separate report.





# Point to ponder for fintechs:

Imagine that you are buying a present for a friend's father and the only thing you know is that he is a 55-year-old man. Is that enough information for you get the right present?

# 5.1 Segmentation

India is going through a phase of rapid The first step in building a customercentric model is to understand the needs of a typical customer. The combination of finance and technology can be powerful, but it does not get used until it solves a problem. Not all solutions may be equally relevant or valuable to all customer segments. It is, therefore, essential that fintech companies identify the customer segment that forms their target customer base.

Traditionally, consumer segments have been seen from the lens of basic

demographics such as low income vs. high income segments or men vs. women. These do not provide enough information to arrive at the most relevant and targeted strategies.

Understanding beliefs, perceptions, attitudes and aspirations provides further insight into how customers behave and why. A good segmentation study should be able to integrate various facets of consumers to provide in-depth knowledge to financial solution providers. Table 1 shows a set of information buckets which can be a good starting point for a segmentation study on financial inclusion.

**Table 1:** Profiling consumer segments and the fintech advantage\*

	General	Product-specific
Observable	General demographics and lifestyle: age, gender, education, socio-eco- nomic status  Fintech advantage: Obtained from enrolment data	Behavioral factors: day-to-day management of finances, influencers on financial decisions, user-status, stages of adoption  Fintech advantage: Observed from transaction data, especially when the solution integrates with social networking sites
Unobservable	General psychographics: self-efficacy, trust in people	Specific attitude towards financial solutions: importance of saving, perceptions towards banks, expectations

<sup>\*</sup>Adapted from Wedel and Kamakura (1998).



A good segmentation exercise usually uses a combination of quantitative and qualitative data, derived from a number of sources. Typically, consumers in a particular segment are likely to be similar in profile and display similar patterns of behavior. To bring a segment alive, we use personas. Segmentation can now be used by the team to build a strategy for which target segment to focus on and how. We will be discussing data in greater detail in section 5.2 on analytics for customer centricity.



### **Box 2:** Insights from an urban slum

In CATALYST's case, a wide range of research techniques were adopted to understand customer segments. An example of observational research in practice was the immersions conducted in Barkat Nagar and Bhatta Basti slums with various consumers and merchants. The CATALYST team conducted focus group discussions (FGDs), indepth interviews and also shadowed a few merchants to understand the deep-rooted reasons of low engagement with financial products and to get insights on influencing this behavior.

One of the key insights was that there are several layers of the digital divide within consumers in this area. On the one hand, there is the digitally and financially notready cohort of women who do not have a bank account. Most of these women either have a feature phone or share a smartphone with their husbands. On the other side are the men and youth who have smartphones and use apps such as WhatsApp, Facebook or even Flipkart. Despite this divide, there is a common mistrust of technology for financial solutions. We realized

that, unless they see technology helping them with their daily subsistence needs, they will not embrace it.

At CATALYST, we followed behaviorbased segmentation in Bhatta Basti and placed all our consumers alongside the following userjourney continuum. All our solutions were planned to tackle fractures within this adoption journey.

Consumers are unaware of benefits of saving bank account and how it helps

Consumers open bank accounts but might not be using actively

Consumers are unaware of digital financial services

Consumers convert their motivation into action and start adopting and advocating digital solutions

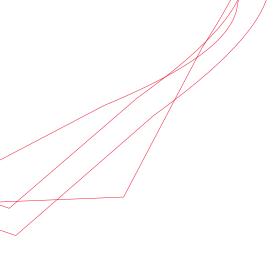
Consumers are aware of benefits and motivated to open an account Consumers start transacting actively

Consumers are aware of benefits of digital financial services and are motivated to use

A common mistake made by financial service providers and fintechs is the assumption that all poor customers have the same requirements. Extensive research<sup>33</sup> has been done to show that low-income markets are far from being a single homogeneous segment. The practical way to segment customers is to start with a business objective and use the segmentation exercise to gain information to achieve these objectives. CGAP's segmentation toolkit provides a step-by-step approach.

<sup>&</sup>lt;sup>33</sup>See www.cgap.org/research/publication/customer-segmentation-toolkit for details







## **Box 3:** How Bix42 selected its customer segment?

Bix42 (formerly MeraPaper), a subscription service that allows customers to digitally pay for their newspaper delivery on a monthly basis, started with a clear understanding of its customer segment. Newspapers are read by almost every household in India and delivered with high efficiency every morning. Although seldom researched in detail, the industry provides part-time employment to many since it involves intensive, door-to-door delivery. In Delhi alone, there are an estimated 15,000 newspaper vendors. Each vendor employs delivery boys who then each deliver between 150-200 newspapers per day. While there aren't any clear market estimates. the turnover of the industry runs into several hundred million at a national level. The delivery is the easy part of the work. Collecting payments for the delivered

newspapers can pose a huge pain point since the same delivery boys have to visit door-to-door to collect payments. Visits over weekends would mean customers are busy, do not have cash or are not at home. Visiting on weekdays poses similar challenges and often has to be done outside of office hours, often early in the morning or late evening, both of which are equally inconvenient. In a business with low margins, these repeated visits to collect a low sum of money erodes profits further.

The founding team of Bix42 identified its target segment as the newspaper vendors who faced the highest pain-points in the delivery and collection process. To understand the segment better, the team members shadowed newspaper delivery boys and vendors, often at 3 am. They used this interaction to understand

multiple pain-points and what can be eased using a digital payment solution. Their business objective was simple: to acquire new customers. Not all newspaper vendors were open to the idea and the team further defined segments based on attitudes and interest in new technology.

Bix42's deep understanding of customers has paid off. The city of Jaipur has about 150-200 newspaper vendors and Bix42 today works with 70 percent of the vendors. In the next wave, the company is planning to expand to newspaper vendors in other geographies, while also expanding the offering to other similar segments that work on an intensive delivery model such as cable TV operations or water bottle delivery.

(Inputs from a paper by Anubhuti Sharma, Center for Civil Society, https://ccs.in/internship\_papers/2011/253\_do-you-know-how-a-newspaper-reaches-you\_anubhuti-sharma.pdf)

# 5.2 Data analytics for customer centricity

Financial service providers, in general, collect large amounts of data about customers, at the time of enrolment and then at the time of transaction. Fintechs often have access to even larger data sets, since their business models revolve around analyzing large data sets. Both quantitative and qualitative analysis is possible, depending on the kind of data that are gathered. For instance, transaction

data can be analyzed quantitatively and provide inputs into specific customer segments. If the fintech is offering the solution through an app on Google Play, then comments from users is an important and rich source of qualitative feedback on the experience of using the application.

CGAP's customer analytics toolkit<sup>34</sup> provides a set of resources for fintechs looking to gain in-depth understanding of the subject. The toolkit highlights three pitfalls to watch out for when building data capabilities.

Fintechs often suffer from a 'death by data' syndrome, where large quantities of data are collected inadvertently, and often remain unanalyzed.

Figure 3: Key pitfalls related to data capabilities



### Data Sources/ Collection

Limited focus on collecting customer data because data has not been considered a business asset

In some cases, too much data is collected and the organization is unable to manage the quantity generated or prioritize what's useful



### **Data Quality**

Data collected is often not standardized or verified because it's seldom referenced

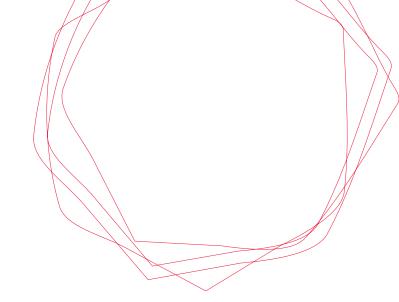


### Single Customer View

Data sources are separate and difficult to connect, so the organization has a fragmented view of their oustomers

Information from original source







# Point to ponder for fintechs:

Do you know what the different kinds of data you gather, deliberately and inadvertently, are?

Do you have a data analytics specialist who is in touch with overall business strategy, so s/he can use the data sources well?

Do your teams operate in silos or do they know where to look when they need specific data?

Do you track impact in terms of improved customer satisfaction, lower time to service requests, repeat customer purchases as metrics?

Does your frontline staff know why they are collecting information and the need to keep data sources clean?



**Box 4:** Working in silos

PayNearby, one of the companies in the CATALYST incubator program, understood the importance of data but did not look at the data it was gathering informally and inadvertently. For instance, its frontline staff was given feedback by agents which was often communicated back to reporting managers orally and not captured in a formal fashion. The team also realized that agents were sometimes leaving enquiries or feedback about their application on Google Play, which could be used for new customer acquisition or to improve existing customer retention if analyzed in time.

Key reasons for these gap were that the organization did not have a dedicated analytics person (a role that was filled recently), and information was not linked to a specific business challenge or objective. At a workshop held with the leadership team, where business objectives were prioritized, these data sources were analyzed and a process put in place to share the information across teams.

# 5.3 Journey mapping: Identify pain-points that impact adoption and usage

A journey map indicates the user's experience at every stage of interaction from signing up to actually using the service. A journey map is usually generated for each user persona. In addition to the analytics tool and segmentation tool in the previous sections, a journey map can speak about pain points, barriers and challenges that arise while using a service.

An instance of a journey map is given in the toolkit below. An example of a journey map is also found in the CGAP Customer Centric Guide under 'Resources'.



Tool 1: Customer journey map<sup>35</sup>

### Customer Journey Map (1/1)

1a. CONTEXT:

tb. STAGES What are the stages of the journey?	1.	2.	- 3
2. TOUCHPOINTS What is your customer doing at each touchpoint throughout the journey?			
3a. CUSTOMER THOUGHTS What is your customer thinking at each touchpoint?			
3b. CUSTOMER FEELINGS How does your customer feel at each touchpoint?			
MOMENTS OF TRUTH     What positive and negative experiences occur     throughout the journey?			

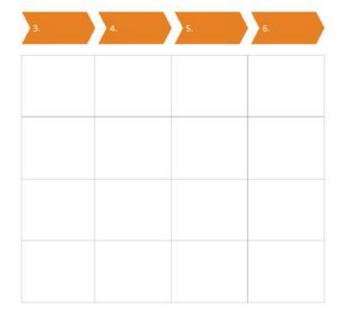


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<sup>&</sup>lt;sup>35</sup>See the CGAP Customer Centric Guide tools on how journey maps can be used http://customersguide.cgap.org/sites/default/files/resource/2017/12/Customer-Journey-Map.pdf



Working with merchants in Barkat Nagar, a neighborhood in Jaipur, the CATALYST team provided handholding support and training on the use of digital payments. Merchants were trained to use three types of services:

- 1. Point of Sale (PoS) terminals provided to merchants: With the Jan Dhan Yojana, almost all accounts are issued a debit card which means customers do have access to payment by debit card, if the merchants have a PoS terminal;
- 2. Bharat Interface for Money (BHIM) app: the National Payments Corporation of India's (NPCI's) UPI-based BHIM app, which allows fund transfer between various bank accounts instantly and is accessible 24 x7; and
- 3. FTCash: A mobile app that allows customers to pay using credit card, debit card, net banking, PayPal, UPI or mobile wallets

### Pain-points identified

#### A. Customer pain-points

- Awareness: Customers do not carry their cards while shopping; this is especially true for small purchases;
- Awareness: Customers had not seen any indication that the merchant accepts digital payments, and had come prepared to pay in cash. Therefore, the possibility of handholding them in the use of an app or a digital payment service was low;
- 3. Onboarding: The lengthy onboarding process to get a UPI ID acts as a deterrent since it is compared with the ability to pay in cash instantly; and
- 4. Usage: Over 60 percent of the customers preferred cash due to their familiarity with it. The fear of being cheated while using digital modes of payment was quite high.

#### **B.Merchant pain-points**

- Awareness: Merchants did not see value in incentivizing customers to use digital solutions if the transaction value was small; it takes longer to use a digital mode than accepting cash;
- 2. Usage: With applications such as FTCash or BHIM, it takes time to establish familiarity and comfort with the interface; unless the merchant is conversant with using apps or curious to learn, the adoption is slow;
- Usage: Since the apps do not charge the Merchant Discount Rate (MDR) or rental (as in the case of PoS devices), apps offer better economics than PoS terminals;
- 4. Usage: While merchants do have smartphones, phone storage capacity is usually low in cheaper smartphones, making it harder to download apps, or update them. This is something fintechs should keep in mind while developing apps or pushing updates;
- 5. Usage: Generation of the UPI ID requires merchants to use the phone number that is linked to their bank accounts. Since there is frequent change in phone numbers in search of the best deal with telecom companies, the mismatch results in a registration failure; and
- Onboarding/usage: Internet failure in some places, or slow download speeds, are deterrents to downloading the apps





# Point to ponder for fintechs:

What happens, for instance, if the interface is something that is unfamiliar and merchants struggle to use it? What if we used 'exaggeration' as an approach and gamified the system of using an application for customer payments? Would the urge to compete with other merchants encourage active usage? Would it help merchants get over their sense of unfamiliarity as they open the app frequently to transact?

Once pain-points are identified, there are a number of ways to come up with solutions. Since most pain-points stem from interface challenges, it is best that the customer facing entity lead the solution brainstorming process.

Other critical partners who influence design and delivery of services should also be present during this process.

Since fintechs are known for their agility and ability to rapidly prototype and test solutions, we suggest the use of the Fast Idea Generator as a toolkit (see Toolkit 2). The presence of a cross-functional team during the Fast Idea generation process makes it is easier to 'stretch' rules.



Tool 2: Fast Idea Generator36

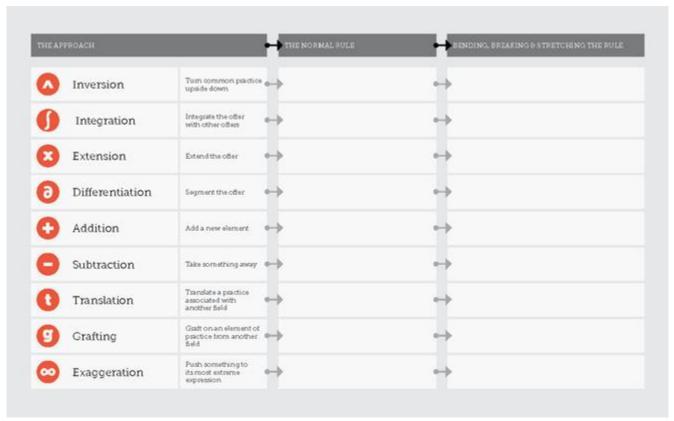


Image from original source

<sup>&</sup>lt;sup>36</sup>See the original toolkit: https://diytoolkit.org/media/Fast-Idea-Generator-Size-A4.pdf





Armed with customer insights, the next stage is to design products and services, and deliver them in a manner that is customer centric. Customer experience, which comprises every interaction a customer has with the organization's products and services and includes user experience and communication, is an indicator of customer centricity.

The CGAP customer experience workbook<sup>37</sup> offers a set of nine tools that can be used to design a positive customer experience at every stage. This includes the use of the journey map which can be used to map the various stages of interaction, online as well as offline, with the provider.

### 6.1 Communication

Guided by insights from behavioral sciences and the Yale 4P framework<sup>38</sup> we have created a framework (Figure 4) that service providers can learn from and adopt while designing solutions to ensure a better consumer uptake. The aim of this framework is to ensure communication with customers is consistent and helps build trust.

Figure 4: Yale 4P framework to design nudges



### Point to ponder:

Do you have customer insights to understand barriers that prevent usage of the services offered?



Understand the current barriers, remove these to make the desired choice easy

## Make the solution consistent and available!

If the solution is inconsistent with the perceived benefit based on communication, this can lead to disillusionment and loss of customers. Equally important is availability of solutions at the time of need.



### Point to ponder:

Are you consistent in the messages delivered to the customer? Are you transparent?



### Point to ponder:

Do you know what are the critical moments to communicate with your customer? What does your customer insights team tell you?

### Make the desired behavior attractive!

This is about how well you can communicate your solution –do not challenge existing beliefs, communicate at the right time, through the right channel

# Make the solution motivating for the customer!

Link the solution with their personal needs and aspirations to motivate change.



### Point to ponder:

Does your solution make the customer's life easier or better in some way? Use that insight in your communication

<sup>&</sup>lt;sup>38</sup>https://www.insightsassociation.org/article/nudging-consumer-how-make-desirable-behavior-path-least-resistance



<sup>&</sup>lt;sup>37</sup>http://customersguide.cgap.org/sites/default/files/resource/2018/04/CGAP-Customer-Experience-Workbook.pdf



## **Box 6:** Pitfalls to avoid in visual communication

Communicating clearly to customers, a critical first step in building awareness in the customer journey map, requires breaking through the existing clutter and placing the information at an accessible point. Here are some learnings from CATALYST's field experience:

- 1. Make sure the information is not lost in a jumble A visit to the CSP in Bhatta Basti, the urban slum where CATALYST was working with low income households and merchants, revealed a shop front that had multiple posters. CSPs are agents appointed by banks so customers can conduct banking transactions close to home. CSPs often operate multiple businesses and have promotional posters advertising the multiple services. For a customer visiting the CSP point to avail of financial services, it is hard to locate the poster that explains the range of services offered. This leads customers to stay with the services they are aware.
- 2. Ensure the customer can easily access information PayBee, a CATALYST incubated company,

- realized that digital payment by customers was a key driver in ensuring that merchants shift to digital payments. This led them to provide quick response (QR) codes that could be scanned by customers through any application so they could pay through UPI. These QR codes were sometimes displayed in a way that made it hard for customers to access. For instance, one dairy retailer had the QR code stuck behind a pillar which required a customer to lean over the counter and turn around to scan the code. Accessibility to ensure customers can use the service is key!
- 3. Provide a simple explanation or train available people to explain it in simple terms While PayBee provided QR codes at dairy booths so people could scan the code to pay, they did not train the merchants to provide any information to customers. Customers are familiar with QR codes and often associate them with Paytm, a mobile wallet provider who received a payment bank license. However,

- mobile wallets and UPI are not interoperable. Customers therefore tried scanning the QR code to pay using their Paytm wallet, which did not work. Merchants were unable to explain the difference to customers, and perhaps did not have the time.
- 4. Put yourself in your user's **shoes** The CATALYST team had designed a series of campaigns that aimed at getting customers to pay utility bills digitally at eMitra locations, resulting in a prize for the best performing eMitra. The information that was displayed as a banner on the eMitra portal was sometimes not visible because people used different screen resolutions, or accessed it on their phones. This was detected by the CATALYST relationship managers dealing with eMitras and the banner resolution was adjusted so it was visible to all. eMitras were also informed about the campaign to build awareness.

# 6.2 User interface and user experience

Increase in smartphone penetration brings new opportunities to include customers with low literacy levels. Well-designed interfaces can allow customers to navigate and access services, overcoming several of the challenges that traditional financial services continue to present. Brett Matthews and his team at My Oral Village have done extensive research to come up with a set of principles that fintech companies can keep in mind while designing user interfaces, <sup>39</sup> i.e.:

- a. Tools must enhance client-side financial product usability (this is critical to build trust since you cannot trust what you cannot use);
- b. Wherever practical, tools should provide positive incentives to clients to acquire useful financial numeracy and financial literacy skills;
- c. The process of tool design and application must be client-guided;
- d. On a net basis Oral Information Management tools should strengthen existing control systems; and
- e. Oral tools should not inconvenience or embarrass literate clients.

CGAP contends that a well-designed smartphone interface can deliver benefits to both providers and customers (see Figure 5). $^{40}$ 

Figure 5: Impact of well-designed user interfaces<sup>41</sup>

# FOR PROVIDERS

- GROWTH: transactions, use and revenue per customer
- ▲ CUSTOMER ACQUISITION: increased and diversified customer base
- CUSTOMER RETENTION: higher activation and use, and lower dropouts

## FOR CUSTOMERS

- ▲ TRUST: easier to understand services and fees
- ▲ CONSUMER PROTECTION: reduce errors and enable easier access to assistance for customers
- ▲ CONTROL: more control over their financial

<sup>&</sup>lt;sup>41</sup>https://www.cgap.org/sites/default/files/publications/slidedeck/principlesofsmartphonedesign05oct16-161005230428.pdf



<sup>&</sup>lt;sup>39</sup>See myoralvillage.org/principles-of-oim-design/uncategorized/myoralvillage/#more-2062

 $<sup>^{\</sup>bf 40} See\ http://www.cgap.org/sites/default/files/publications/slidedeck/principles of smartphone design 05 oct 16-161005230428. pdf$ 

A list of 21 principles for user interface (UI)/user experience (UX) design, published by CGAP,<sup>42</sup> is summarized in Box 7, along with some learnings from the CATALYST experience.



# **Box 7:** Principles for UI/ UX design (adapted from CGAP's publication)

- 1. Allow users to explore before using
  - » Allowing users to explore an application helps build trust, since they can ask questions
- 2. Help users find agents/transaction points
  - » This is particularly helpful with remittances when the receiver needs to know the nearest transaction point
- 3. Simplify application registration
  - » To install BHIM for UPI transactions, we found users have to go through multiple steps which can act as a barrier
- 4. Flatten menu hierarchy
  - » Customers value transactions when they can get straight to the point. The comparison they are making is with using cash.
- 5. Focus menu choices on actions
  - » Use icons and language like 'send money', pay bill, instead of 'bill payments', money transfer, etc.
- 6. Reduce text and use visual cues
  - » Easier for customers with low literacy levels
- 7. Design icons relevant to local users
  - » Test if the icons are interpreted the way intended
- 8. Use simple and familiar menu terms
  - » Use colloquial terms instead of technical jargon
- 9. Build on users' familiarity with smartphones
  - » Think of other apps that users are familiar with, and use the same navigation, icons, menus, etc.
- 10. Customize transaction choices
  - » Present choices based on frequent usage, last transactions, etc.
- 11. Autofill from the address book or transaction history
  - » Typing in information can be difficult on smartphones. Autofill as far as possible

- 12. Auto check to minimize human error
  - » Very important to make sure incorrect transactions are not made due to additional zeros, etc.
- 13. Display information in digestible chunks
  - » Give customers fewer choices
- 14. Reassure with transaction confirmations
  - » Critical with the low human interaction while using an application
- 15. Leave a clear trail of transaction histories
  - » This is important to further deepen trust since it provides proof of transaction
- 16. Provide instructions when needed
  - » For instance, check if the amount being transferred is correct
- 17. Handle errors by providing next step solutions
  - » If the user has forgotten a PIN number and wants to generate a new one, explain how on the same screen so the user does not have to navigate back
- 18. Customize and simplify keyboards
  - » Show the keyboard required with no additional characters
- 19. Auto calculate fees during transactions
  - » Transaction fees that customers pay should not be a hidden charge. It should show up at the time of making the transaction so users know the total, all inclusive cost
- 20. Provide full transaction details on one screen to finalize transactions
  - » Do not switch screens so users feel comforted that they are still fulfilling the transaction they started
- 21. Make account balance easy to see and hide
  - » Accessibility does not have to be at the cost of customer privacy. Create a design that allows the user to check balances away from prying eyes

<sup>&</sup>lt;sup>42</sup>See http://www.cgap.org/sites/default/files/publications/slidedeck/principlesofsmartphonedesign05oct16-161005230428.pdf



# 6.3 Customer experience

At every stage of the customer journey, process gaps can translate into poor customer experience. Along with UX and other factors that contribute to a positive customer experience, service providers have to think about process failures or gaps. For instance, if a customer's account is debited twice at the time

of a transaction but getting a reversal is not automatic and immediate, or the customer is not informed about how long it would take or what the process is, this can translate into poor customer experience.

Complaints form an important channel for feedback and should be analyzed accordingly. The test of a well-functioning process is when customer complaints about the issue drop after the process was instituted.



# Point to ponder for fintechs:

Do you know what the process gaps are that exist in your delivery? If not, use the journey mapping tool to identify and address gaps

Are your employees trained on how to address process failure or gaps when they arise?

Is it part of the organization's culture to be completely transparent and provide clear, accurate timelines to customers?

Is your company known for "doing what it says"?

Do you have a team or dedicated resource who is thinking about customer experience at every stage of their interaction?



**Box 8:** Positive customer experience despite transaction failure

When the CATALYST team was heading to meet a PayBee customer, a small kirana store owner in a sleepy neighborhood in Jaipur city, we were informed that his account had been debited twice the previous day. Prepared to receive a litany of complaints, we were pleasantly surprised that we did not hear about the double debit to his account. We asked him with great trepidation and were surprised to hear that he was not worried. He said he had contacted the relationship managers at PayBee and was informed that the reversal would take place within three working days. The comfort of knowing when he would get his money back and the fact that he had the personal mobile number of the relationship manager at PayBee helped.

The incident taught us an important lesson. We realized that customers are not expecting a 100 percent error-free transaction environment. However, when an error takes place they want to know what the process is to rectify it and how long it will take. Being transparent and providing clarity goes a long way in building trust.







# 7.1 Looking inward: treating agents as customers

PayNearby is a hyperlocal network that extends financial services to previously underserved or entirely unserved individuals in some of India's poorest neighborhoods and communities. It operates on a business to business to consumer (B2B2C) model where it provides a platform to existing neighborhood retailers, so these local businesses can act as an intermediary in the provision of financial services. Local retailers can offer services such as Aadhaar ATM, Aadhaar deposit, SMS payment, utility payment, prepaid cards, mutual funds and insurance, direct money transfer and other services such as travel ticketing.

Slightly over two years into its existence, PayNearby is already processing over US\$300 million every month in transactions through its platform. It has managed to achieve this with

a zero dollar marketing spend. The strength of its growth lies in its focus on the retail network. Agent management services are common in India, yet PayNearby has managed to beat competition.

The importance of community trust networks when introducing new technology is something that PayNearby has never underestimated; for the opportunities of technology to be realized, people need to start using and relying on it. PayNearby realized early on that the greatest benefits would be derived from focusing exclusively on retailers as its 'customers'. This means any issues a retailer faces with the end users are owned by PayNearby as challenges they face and are addressed.

Focusing on the retailer means that PayNearby does not derive the same value from traditional marketing strategies; as result, it must repeatedly ensure the superiority of its customer service which is what attracted most retailers to join the platform in the first place. The PayNearby story shows how easily customers can be won over to a new product; now it needs to keep ahead of competition by continuing to put customers first.



### How well do you know your agents?

Well before the product launch, the PayNearby founders solicited extensive advice and criticism by going into the field and talking with retailers to ensure that they were developing services that best served the market. One feature that emerged from these discussions was the need to maintain both a desktop and mobile phone platform. Having both options allows retailers to facilitate transactions for the end consumer even when they are away from a fixed store premises, which increases convenience for all parties and ultimately allows the retailers to maximize their potential profits. This insight and development of the PayNearby platform worked well for a PayNearby agent, who processed over INR 130,000 (~US\$2,000) in transactions on a Sunday morning because when customers rang him up, he had the app at hand.

# Ensure your agents are able to serve the market they operate in

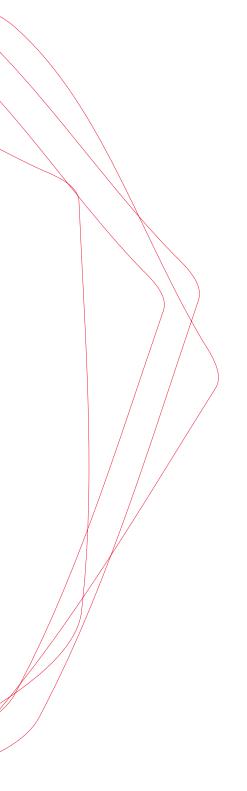
Initial insights also revealed that, in Bandra West, Mumbai, where PayNearby has well over 70 retailers, most of the population consists of migrants from rural areas in search of better employment. Traditionally, these migrants would save their earnings in cash, and then make a train journey back home once a year. Storing and carrying cash over long distances presents issues in terms of security and safety. The Direct Money Transfer (DMT) feature on the PayNearby platform allows transfers to be made electronically, reducing the potential for the cash to be

stolen and increasing the frequency with which families back home can receive money. Many retailers relate that, when one of their customers performed the transfer electronically for the first time, he arranged for one of his family members to be standing at the ATM to see that the amount was indeed immediately reflected in the bank account balance. Being aware of stories like this and keeping them at the heart of the business reinforced focus on factors such as driving transaction failures below what may, in other businesses, be considered 'reasonable levels'.

# Build in features that continue to delight

Most of PayNearby's agents run mom and pop stores. Quite often, customers in the immediate vicinity of such stores place orders and settle their bills at the end of the month or fortnight when they get paid. For the retailer, this means tracking and managing multiple credit accounts, all of which is done manually. PayNearby realized this and introduced the digital khatta system that allows slightly advanced customers to place orders and pay digitally. For others, the retailer can still maintain a digital record and use the identifier he/she is most comfortable with to identify the customer. While the feature is a delight factor at the moment, it also allows the retailer to expand his business to other payment services over a period of time, increasing overall revenue from the PayNearby business.





# 8.1 Structuring strategic partnerships

Partnerships are a critical component in the delivery of digital financial systems, between multiple stakeholders. These partnerships are important ways to use existing infrastructure, transfer risk to institutions that are capable of bearing it, and delivering a positive customer experience to customers due to the possibility of being more responsive. With open APIs, the need to replicate existing infrastructure is removed, and fintech companies which are thinly capitalized compared to banks, for instance, do not have to bear customer risks. For larger, more traditional financial institutions, these can provide access to new pipelines of customers and lower customer acquisition costs. While all of these advantages exist, challenges can arise if partnerships are not structured well. For instance, banks may be slowed down by their traditional processes, leaving the fintech that

faces the customer to deal with repercussions of slow redressal processes. There are multiple opportunities for partnerships that can arise, so rather than provide a process map, a partnership canvas tool is recommended.

There are three reasons why the Partnership Toolkit is important for fintech companies:

- a. They depend on partnerships to manufacture or deliver products;
- Issues with poorly structured partnerships translate into customer experience challenges, which inevitably result in business challenges for the fintech provider; and
- Partnership structure raises issues of customer origination, data sharing and privacy, customer protection and grievance redressal.

While partnerships have advantages, they represent a significant investment of time and resources. We recommend that organizations considering partnerships as the way forward consider the questions outlined in Box 10 to assess their readiness.

There are three stages to a partnership:

- A. Partner selection and designing the partnership;
- B. Managing the partnership/integrating with partners; and
- C. Establishing partnership governance.

At the heart of defining the partnership is the question on how the partnership will help deliver a better, more complete experience for the customer. Of course, this means that both or all sets of partners are clear on their customer segment, and what would add value to their customers. (Refer Section 5 on learn from customers for tools on the topic).

# **Box 11:** Establish explicit business objectives

- The business challenge various partners seek to solve could be one (or more) of the following:
- » Gaining access to new market segments;
- Creating new offerings for existing customers;
- » Data collection, use and management;
- » Deepening customer engagement and product usage;
- » Partnering to overcome a licensing challenge;
- » Partnership for usage of digital credit; or
- » Helping you reduce the cost to serve.

In the partnership, the business objectives that each partner seeks to achieve may be the same or different. What is important to note is that the partnership is able to simultaneously meet the needs of all partners, and create value for the customer in the process.

### Step 1: Designing the partnership - the Partnership Canvas

Identify and agree on the customer segment that is of strategic interest to both partners. Then, use the Partnership Canvas to identify the list of benefits that the partnership will provide to customers, such as speed, availability, convenience, performance, customer experience, etc. These are benefits that create a strong differentiation from competition.

Figure 6: Some things customers care about



"Some things will change and some things won't. Customers won't always want any one product or service. They won't always want iPads. But they will always want great experiences, great service, convenience, selection, low prices and fast delivery. A customer-focused company knows what its customers care about and builds capabilities and strategies that reinforce its advantages over time".<sup>43</sup>

- Dave Gray, The Connected Company

Visual: Dave Gray, used under Creative Commons License

Once these benefits are identified and agreed upon, use the Partnership Canvas Toolkit<sup>44</sup> to design the partnership. Before using the Partnership Canvas, both partners must have clarity on the business challenge they seek to address, and how solving this business challenge will add value to their desired customer segment (see Box 11).

<sup>&</sup>lt;sup>44</sup>In this section, we reference material that has been developed by Bart Doorneweert, partner at the Source Institute and can be accessed under the Creative Commons License at this link: valuechaingeneration.com.



<sup>&</sup>lt;sup>43</sup>Gray, D. and T. Vander Wal, The Connected Company, first edition, O'Reilly Media Inc, 2012., ISBN: 144931905X 9781449319052.

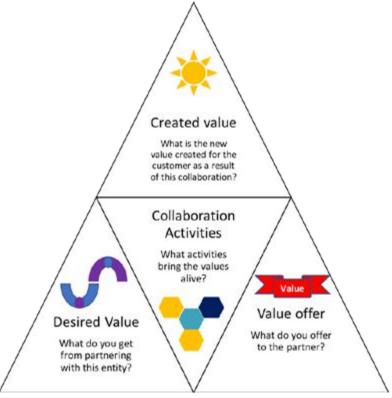


Image adapted from original source

- Before entering any partnership, the first step is to determine what you seek to gain through entering the partnership. For instance, you may be a fintech that seeks to offer a financial product that you do not have the jurisdiction to develop.
- The second step is to evaluate
  what you offer to the partner.
  Remember that your offering has
  to match the value of what you
  gain from the proposed partner.
  For example, you may choose to
  partner with a large bank that
  can develop the product you
  have in mind, but do not have
  the channels to reach the right
  customer segment.
- 3. The third step in the process is to identify the set of activities that links the various partners. For example, in a fintech-bank

- partnership, how will the fintech identify proposed customers?
  Does it have to authenticate the customers for the bank partner?
  What happens once the customer has been identified and has expressed interest in the product or service? Are there systems in place that help onboard the customer and deliver the product/ service on behalf of the bank?
- 4. The last step is to ensure that the collaboration adds the value that was outlined at the beginning to the end user, and helps in solving the business challenge that all partners began with.

This stage helps establish the partnership. Both partners must be clear on how the collaboration results in driving Return on Investment (RoI).<sup>46</sup>



<sup>&</sup>lt;sup>45</sup>Adapted from the Partnership Canvas, created by Bert Doorneweert. The original canvas can be seen at: https://valuechaingeneration.com/2014/10/17/the-partnership-canvas/

<sup>&</sup>lt;sup>46</sup>https://customersguide.cgap.org/sites/default/files/resource/2018/07/CGAP-Change-Management-Toolkit.pdf

## Step 2: Managing the partnership

Partnership collaborations are usually complex and require a large number of interrelated and sometimes unrelated facets to work in tandem, so that the customer experience is not affected adversely. It takes a significant amount of investment in planning and resources to ensure that the relationships between partners are of high quality and work effectively. The 'Building Partnerships Toolkit'47 breaks the process into steps so difficulties and challenges can be anticipated and addressed. This toolkit is to be deployed after using Toolkit 3 (Partnership Canvas), and at the start of the planning stage.



2

Institutionalizing

Building appropriate

mechanisms for the

partnership to ensure

8

structures and

longer term

commitment and continuity

Revising

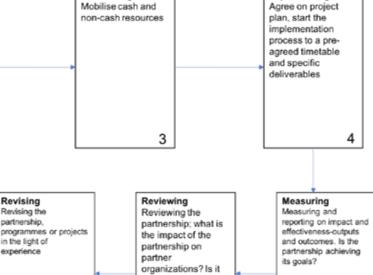
Revising the

partnership,

in the light of

7

experience



6

time for some partners to leave/new ones to

join?

Implementing

<sup>&</sup>lt;sup>48</sup>Adapted from the Partnership Canvas, created by Bert Doorneweert. The original canvas can be seen at:https://valuechaingeneration. com/2014/10/17/the-partnership-canvas/



Sustaining or

**Building sustainability** 

appropriate conclusion

9

or agreeing on an

terminating

5

<sup>&</sup>lt;sup>47</sup>Adapted from the DIY toolkit, which was inspired by Tennyson, R. 2003. 12 phases in the partnering process, p4. In: The Partnering Toolbook. The original DIY toolkit can be accessed here: https://diytoolkit.org/tools/building-partnerships-map-2/

### Step 3: Establishing partnership governance

Most partnerships fall through because, once established, management of the ongoing relationship between partners loses focus. These are usually early signals to a change in strategy on either side and call for a review of the partnership.

There are four essential steps to ensure partnership governance is maintained:

- » Partnership management function: This means both partners must designate dedicated resources to the management of their external partnership;
- » Set rules for knowledge sharing: This includes ownership of data, common data privacy rules, clarity on use of brand assets, intellectual property, etc.;
- » Establish cross partner teams; and
- » Communication and interaction: A successful partnership follows a communication plan that involves regular meetings, feedback loop, action on feedback reports, and so on.

Although fintechs may have successful requirements from an ideal partner, success in making the partnership work hinges on some key areas.

Figure 7: 10 areas fintech firms should keep in mind through the partnership lifetime<sup>49</sup>



Image from original source



<sup>&</sup>lt;sup>49</sup>https://www.capgemini.com/wp-content/uploads/2018/02/world-fintech-report-wftr-2018.pdf



**Box 12:** Fingpay - the need for strategic partnerships

The launch of India Stack and Aadhaar Enabled Payment System (AEPS) created a host of business opportunities in the digital solutions space. Fingpay, incubated by CATALYST, is a startup that allows customers to pay using AEPS, and requires just their fingerprint to authenticate transactions if their Aadhaar number is linked to the bank account. In light of the recent privacy ruling and the Supreme Court judgment on use of Aadhaar, businesses like Fingpay may face some uncertainty as the implications for their business model are understood in greater detail.

In principle, Fingpay offers a payment solution that is convenient for customers who are less literate. The app itself has been designed with a simple interface making it easy to use for people who

are not so familiar with a digital environment.

Several of Fingpay's early partnerships have been with small microfinance institutions (MFIs) who face the cost of cash collection. In partnership with Fingpay, the collection agents ensure that customers use the Fingpay device to transfer their loan repayment installment from their accounts to the MFI account. While this brings down the risk of cash collection for the MFI, it passes on the costs to the customer who now has to ensure that his/her account has enough funds before the collection date. In cases where a bank branch or agent does not exist in the neighborhood, this means the customer bears the cost of travel, waiting and ensuring funds are credited to his/her account.

While we are yet to see the impact of recent Supreme Court rulings and how Fingpay will deal with them, one possible avenue for a strategic partnership is with merchants who are frequently visited in a neighborhood. Given that most people who shop for household items or grocery are women who forget to carry cash or do not have a smartphone, the presence of a Fingpay device would allow them to pay by using biometric authentication without the burden of carrying cash, card or mobile.

Fingpay will also need a grievance redressal mechanism and clear communication with customers to ensure that failed or disputed transactions are dealt with fairly and customers are unafraid to use the payment solution.



# 8.2 The importance of leadership and culture to build a customer-centric business

Strong leadership that believes in the need to focus on customers is a prerequisite in building a customer-centric business. With fintechs, most of whom are at an early stage, leadership can play a powerful role in shaping the culture of the organization to ensure focus on customers does not shift with growth and scale. According to the CGAP Customer Centric Guide, there are four key enablers<sup>50</sup> to accelerate and sustain customer-centric transformation:

- » Developing and continually nurturing organizational culture;
- » Storytelling embeds a mindset shift toward customer centricity;
- » Aligning rewards and incentives with organizational values reinforces the culture and outcomes you want to achieve; and
- » Digital technology strengthens and connects systems within the customercentric architecture being assembled. It supports data-driven and customerfocused decision making and agile, crossfunctional ways of working. Technology empowers employees to better serve customers and succeed at their jobs.

The starting point to creating a customercentric culture could be any of the four. For instance, Kaleidofin, one of the companies that CATALYST incubated, was inspired by 'Zoonaisms' and decided to create its own "-isms" which they called 'Kaleido-isms' (see Box 13).



**Box 13:** Kaleido-isms: leadership and culture to build a customer-centric business

Leadership at Kaleidofin, a business incubated by CATALYST, was clear on its vision of customer centricity. Started by former bankers with a rich experience in India's financial inclusion space, the leadership believed strongly in the power of rewards and incentives to reinforce the company's culture and align behavior towards the outcomes the company wished to achieve. Kaleidofin provides wealth management advice using machine learning and Artificial Intelligence (AI), where the back-end algorithm rapidly iterates and provides suggestions on financial products that customers can take based on initial inputs that create customer segments and match risk profiles, goals, etc. The leadership was clear that it did not want a salesled culture, and that the customer

should be given products that are relevant and suitable to their lives. However, it believed that the output was only as good as the inputs fed into the system, which needed a human interface. Second, a large part of the team worked on building algorithms, and could easily be distanced from the reality of customers' lives, i.e., with volatile incomes and expenses, and a fragility resulting from low incomes and unpredictability.

The leadership along with the founding team of employees, at a two-day workshop, agreed on Kaleidofin's core values. This led to the creation of 12 principles the team called 'Kaleido-isms', which form the basis for rewards and recognition, and an incentive structure for the organization.

The 12 Kaleido-isms are:

- We put the customer first, always
- » We iterate towards excellence
- » We drive change, and are not constrained in our quest to solve
- » We value and respect who we work with
- We take ownership in everything we do
- » We deliver what we promise
- » We are unafraid to fail but fail fast
- » We may disagree but we shall commit
- » We won't judge our customers
- » We commit to building expertise
- » We have a bias to action
- » We innovate to simplify

<sup>&</sup>lt;sup>51</sup>Look under the resources section of the CGAP Customer Centric Guide: http://customersguide.cgap.org/resources



<sup>&</sup>lt;sup>50</sup>See: http://customersguide.cgap.org/organize-for-delivery/change-management



In many ways, identifying value so customers use digital payments is the most difficult part of the equation between customers and merchants. There are, however, a number of ways in which digital payment solutions can be designed so as to add value to merchants. There are several challenges with cash payments that translate into operating costs for small merchants:<sup>52</sup>

- The obvious time cost of travelling to the bank on a daily basis to deposit funds, which means shutting the shop at specific hours;
- » Maintaining manual accounts of purchases and sales, which are hard to reconcile or timeconsuming to do so; and

Shortage of credit/expensive borrowing to run the business, since manual accounts make it harder for lenders to underwrite loans.

If these pain-points could be addressed for merchants through a digital solution, it would incentivize them to accept payments from customers digitally, resulting in a domino effect of uptake and usage of DFS. However, this is true when end customers have strong incentive to use digital payments as well.

In the case of PayBee, the focus on one part of the supply chain, i.e., the retailers and distributors, proved insufficient to create an uptake of the solution (see Box 14).



**Box 14:** PayBee: delivering value to small business through invoicing solutions

PayBee focuses on digitizing distributor chains to facilitate the business payments digitally. Not only does PayBee offer the facility to digitize payments, it also provides a seamless digital invoicing system to help retailers and distributors easily recall past payments and identify outstanding accounts. Businesses can now have an immediate 360-degree view of their transaction logs. PayBee segments the people who engage with its platform into two groups: customers and users. Customers are those who want a payment to be collected while the user is the individual who is making the payment.

# Capitalizing on market opportunities

The background processes of the PayBee app are facilitated by the NPCI's UPI which enables interbank transfers, making it simpler for users who only have to onboard the app, and not worry about adding information on their banks as well.

# Capturing customers by looking at the payment ecosystem

PayBee's customers are large distributors who spend a considerable amount of time, effort and human resources in following up on payments from small business owners. Most distributors employ a person who manages a certain set of relationships and follows up for payments, sometimes several times for the same payment. In addition, it is the role of the relationship manager/collector of payments to provide information about the business, incentive schemes that might be operational, etc. Between collecting payments and providing information, the latter almost always slips through the cracks.

PayBee reached out to distributors to explain that, with its application, their relationship managers could focus on building relationships and providing information, while the raising of invoices and payments took place through the app.

To reach the retailers, PayBee used a top-down approach, where its team members accompanied the distributors' relationship managers to visit retailers and help onboard them. Once the retailers had been onboarded and begun to fulfill invoices digitally, PayBee reached out to check if they worked with other distributors, for the same or different product categories. PayBee then approached these distributors and showed them that their retailers were already using the PayBee platform. This was the bottom-up strategy of adoption.

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By digitizing payments, distributors and users have greater visibility of their liquidity position, without the traditional delay between their cash collectors receiving and delivering payments. Digitizing this process also eliminates the problem of attributing a payment to the wrong retailer and the associated risk of third-party payment collection. From the retailers' point of view, regular digital payments allow them to get credit at better terms from banks and non-bank lenders.

# Breaking down necessary product differentiation

PayBee began by asking the question: "Why is this not already happening digitally?" It realized that there was huge investment in the fintech space, but the opportunity it had identified had not yet been seized by others. Its team spent three months in the field identifying differentiators compared to the traditional apps that help digitize

consumer purchases.

PayBee identified four key differences between consumer and business requirements:

# Multiple approvals before crediting or debiting accounts

Unlike a consumer purchase where you're only dealing with one individual, a business often has many people who need to approve a transaction before it can be processed.

# Planned nature of business purchases

Business purchases, unlike consumer purchases, are often planned and budgeted far in advance so tracking upcoming payments is important for businesses.

# Payments are not instantaneous Unlike a consumer transaction where the receipt of goods and

payment is often simultaneous, business transactions are often first invoiced and only need to be paid for later. There is also the case where all the goods are not sold and returned to the distributor wherein the retailer receives a refund.

# Allow for part-payment of invoices

Payments of invoices are not necessarily made all at once so it is important to track the already-paid outstanding parts of the invoice, while providing the digital facilities for payments to be made in this stage-wise fashion.

PayBee ensured that its app recognized and addressed each of these important requirements for its customers. By doing so, the company transitioned its services from simply facilitating payments to becoming an invaluable organizational tool for businesses.

Despite PayBee's focus on merchants and the supply chain of business, digital transactions remained low. A key reason for this was the classic mistake of digitizing payments. PayBee focused on solving problems for the merchants but ignored the fact that the customer was the biggest reason for bringing cash into the system. PayBee did provide QR codes that customers could use to pay the retailers, but without adequate training and inputs on how these could be used, displayed, etc., there was no value add to customers. Mas and Buckley refer to this as a vision gap in their

paper, stating that until providers shift from the focus on digitizing payments to digitizing money, volumes of transactions at merchants will continue to remain low.<sup>53</sup>

A good way to identify the value that an organization adds to its target customer segment is through the Promises and Potential Toolkit (see Toolkit 5). Depending on whether a specific offering is a disruptor or builds on an existing offering, it can be matched with the organization's risk appetite and resources available.

<sup>&</sup>lt;sup>53</sup>Buckley, Ross P and Mas, Ignacio, The Coming of Age of Digital Payments as a Field of Expertise (August 25, 2015). Journal of Law, Technology and Policy, Issue 1, pp 71-87, 2016. Available at SSRN: https://ssrn.com/abstract=1552754





I want to know the people I'm working with by defining how my offering is new to them

# PROMISES & POTENTIAL MAP

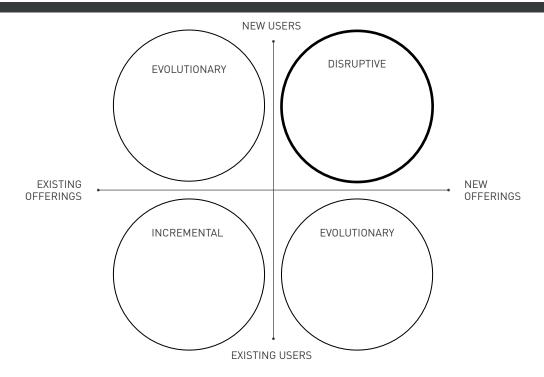


Image adapted from original source

PayBee decided to work in three sectors — pharmaceuticals, FMCG and dairy — to test the uptake of its solution. Despite having a strong value proposition, the firm faced very different reactions in each of the three sectors.

The strongest uptake was in the pharma industry where retailers were more educated, had access to mobile phones and were familiar with the digitized Management Information System (MIS) provided by pharma companies. Purchases at these retail outlets by customers featured a mix of cash and digital payment modes, and retailers could pay distributors digitally. For retail outlets that adopted the app, there were significant savings for distributors in time spent on collection and follow-up visits, and manual reconciliation of accounts. Instead, time could be spent on marketing and promotional activities and providing information on new product launches.

The FMCG supply chain is highly organized and extends into every neighborhood.

However, the profile of retail owners is quite different from that of the pharma sector. Shops tend to be of varying sizes, and education levels tend to be far lower compared to the pharma sector. Not all FMCG retail outlet owners possess smartphones, which is the first deterrent to adoption. Further, unlike the pharma sector, FMCG supply chains are highly manpower intensive. For a specific product category, outlets tend to be attached to a single principal, i.e., FMCG distributor. Unlike in pharma, the FMCG distributors were found to be less enthusiastic since an aggregator like PayBee begins to build aggregate market intelligence over a period of time.

Dairy, a sector that has high frequency, small-value purchases, seemed like an ideal use case for adopting an invoicing solution such as PayBee. However, the sector presented a completely different set of challenges since customers preferred to pay in cash.<sup>55</sup>



<sup>&</sup>lt;sup>54</sup>For the complete toolkit: https://diytoolkit.org/media/Promises-Potential-Map-Size-A4.pdf

<sup>&</sup>lt;sup>55</sup>https://cashlesscatalyst.org/wp-content/uploads/2018/09/Dairy-Learning-Note.pdf

To overcome this barrier, PayBee provided dairy booths with QR codes that could be scanned (see Box 6 for details on pitfalls to avoid on UI/UX). While the PayBee staff provided the booth owners with training to inform customers on how to use the QR code, it did not work well for multiple reasons:

- Different app interfaces have different ways to access the 'scan QR code' option and dairy booth owners, even the digitally savvy ones, could only guide customers on interfaces with which they were familiar;
- Not all customers who came
  to purchase milk carried their
  smartphones; very often children
  or domestic assistants were sent
  to buy milk;
- 3. It was more convenient and less time-consuming to pay in cash

- since people usually had a store of coins at home which they dipped into for milk purchases; and
- 4. Failed or lengthy transactions were a barrier to customers adopting digital payments.

A January 2018 report by RBI mentions that the total volume of coins in circulation has been increasing year on year, in response to increasing demand. Since coins are hard to store and expensive to transport, they are seldom accepted back by banks and are instead found in circulation with small business owners and retail customers.

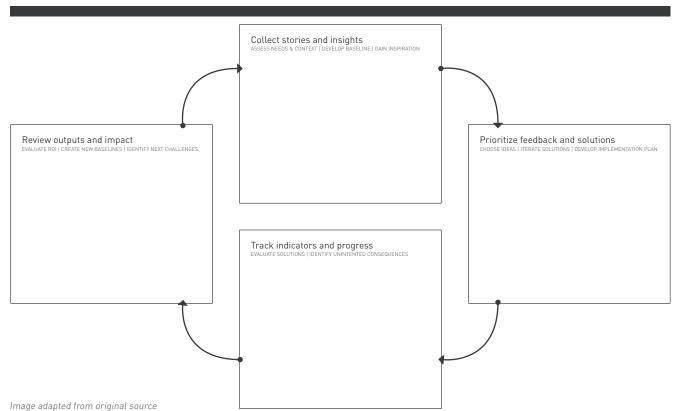
An important learning from PayBee's experience is the need to establish a Learning Loop that helps establish a feedback loop to learn from both success and failure in operations (see Toolkit 6)



Tool 6: Learning Loop<sup>57</sup>

I want to develop a clear plan by improving upon what I've done before

## **LEARNING LOOP**



 $<sup>^{\</sup>bf 56} {\rm https://rbidocs.rbi.org.in/rdocs/Annual Report/PDFs/8CURRENCYC8DA67E8EB574B8C84A75AE4D52DEBED.PDF} \\ {\rm 100} {\rm 1$ 

<sup>&</sup>lt;sup>57</sup>For the full toolkit: https://diytoolkit.org/tools/learning-loop/



Bix42, formerly known as MeraPaper, a startup supported by CATALYST in its business incubator program, followed a learning loop that resulted in an improvement in app features and increased usage by customers (see Box 15). Starting as an application that was developed to address the pain-point faced by newspaper vendors such as multiple visits to customer homes to collect payment for delivery made, it provided a micro-enterprise resource planning (ERP) solution to digitize customer payments and billing. However, the team has been learning based on feedback from customers and the payment link sent to customers is now a pre-filled UPI link that removes friction for customers. Based on successful implementation for newspaper vendors, the team has expanded to other similar businesses like television cable payments and is planning to enter water delivery.



**Box 15:** Bix42 — enabling digital invoicing and payment collection for subscription-based services

Bix42 offers a digital means of invoicing and collecting payment for newspaper vendors who operate in the cash economy. It allows the vendor to send SMS invoices to his customers which include a link to pay digitally through a third-party payment provider. Bix42 estimates that it takes between 20-22 days for a vendor to settle payments for the previous month, including the time it takes for him to manually reconcile his books without the use of digital finance tools.

The vendors save time and costs associated with chasing and tracking payments and benefit from the additional security of not needing to entrust the collection of payment to other people. Bix42 is also tailoring its app to help digitize other subscription-based services such as cable providers.

# Issues of operating Business to Consumer (B2C)

Digital finance penetration
While newspaper vendors may be active banking users (although

this is certainly not guaranteed), their customers do not use digital payments to pay them. Payment is only one of the pain-points. Tracking delivery is another, which is usually a manual process. While Bix42 estimates that 80 percent of the customers has smartphones, less than 10 percent currently uses them to make digital payments.

### Behavior change

To get people accustomed to digital payments requires nudges that often resemble the repeated house visits that collection agents must make to receive payment. To have people switch to paying digitally, they need to be trained to do so and this is a labor-intensive process.

### Mistrust of startups

A vendor's adoption of a new payment solution is a time-intensive process, especially in the beginning, and there is concern that the time investment may be wasted because many a startups perishes. Bix42 particularly found trust issues with people: since they were unaware of

Bix42/MeraPaper they mistrusted the link sent through SMS, thinking it was spam. The startup addressed this by developing customer facing collateral and having the vendors educate their customers.

### Sporadic adoption

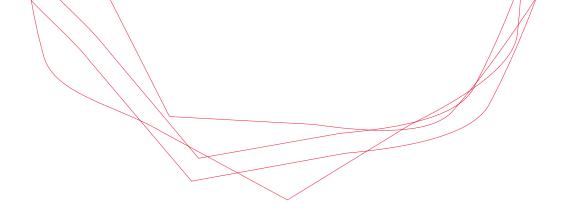
For Bix42 to be a relevant alternative to the traditional cash collection methods, a significant number of vendors need to make the switch to the digital platform. However, because of factors discussed above, adoption is sporadic which endangers the initial enthusiasm of vendors to adopt. One way that Bix42 has overcome this challenge is to make use of the app economically viable for the vendor even if a comparatively low percentage of his customers pays digitally.

# People, tools and insights

The founding team of Bix42 repeatedly went out into the field to handhold the onboarding of the vendors' customers through the payment process after they received

... contd to next page





the SMS invoice. Team members would follow the newspaper delivery boys on their rounds at 3 am to understand their current painpoints but also their ambitions and how they might see digital payments helping them. Being so heavily involved in the initial roll-out activities meant that the founders knew immediately of any issues with the product and of problems such as the payment links timing out.

Bix42 has seen significant organic adoption particularly in rural areas where rather than serving 300-400 customers, one vendor might serve upwards of 1,500 customers who reside in a larger geographical radius. Therefore, the benefits to these rural vendors of adopting the Bix42 platform are even greater. Moreover, because of the increased customer base, the vendor needs to employ more delivery boys in the payment collection process which increases the chance that one of them will abscond with the money.

# Customer experience

### Awareness

Attracting users to the platform begins at the level of the vendors because their power to become an instrument of change in the ecosystem is far greater than the upwards pressure from the consumer. The vendor also accrues the greatest benefits from switching to the app, therefore Bix42 focuses on attracting them to onboard the platform.

### Onboarding

To help overcome issues of low digital finance penetration, Bix42 handheld the initial consumers who adopted the platform and offered a INR 30 incentive to individuals when they paid digitally. The incentive not only encourages a shift in behavior, but also provides a concrete benefit that will accrue when they make it through the onboarding process, which for any app is often laborious and causes some people to give up on the app before they've tried it.

### Use

Bix42 drove use of the product through the Bix42 Payments League which had vendors compete with each other to collect the greatest number of digital payments. After the completion of the competition, a dinner was hosted for the participating vendors; the most successful vendor was also featured in the marketing collateral.

### Retention

Bix42 is an alternative to an existing process; there is scope to charge

for its service. The vendor already must make multiple visits to houses which takes time, costs fuel and may not result in a payment on the first visit. The metrics of benefits that the vendor receives has been calculated so that only 10-15 percent of the vendor's customers need to start regularly paying digitally to allow the vendor to break even. Therefore, the threshold for vendors to see value from the app is low, increasing the chance they elect to stay with the service.

### **Customer value**

Newspaper vendors make bottom line savings by not having to employ and pay the fuel expenses of as many collection agents. They also save time since their books are completed digitally through the Bix42 app.

Digital payments also increase the ease with which the vendors' customers can settle their accounts, reducing the need to coordinate with the collection agents. Bix42 also provides them with a clear breakdown and record of the payments that they have made which has the power to formalize awareness of monthly spending and become used to managing finances digitally.





A customer-centric business model looks at creating value for customers and the service provider. A useful tool to think about the value created for both customer and business is the Business Model Canvas.58 The tool enables conversations on management and strategy, creates an activity plan and identifies challenges, all without losing customer focus. The business model focuses on nine core elements that are the building blocks for value. The first step is to identify the core customer segments being served. Each of the nine core elements are then mapped to the customer segment.

- Channels: Play an important role in building customer awareness, delivering products and services, providing postpurchase support and creating a positive customer experience;
- Customer relationships: The kind of relationships that an institution chooses to establish with the customer will determine the channel (in person vs automated) and extent of involvement, and stems from the business objective of customer acquisition, retention and expansion. This in turn will impact the customer experience and value;

- Customer segments: Define business drivers since the needs of the segment drive the business model itself;
- Value proposition: This represents the value a customer derives from accessing the services provided, and can help the business differentiate from competition;
- Revenue streams: This is based on what each customer segment is willing to pay;
- Key resources: This is the set of resources that are needed to create and offer value to the customer, reach new markets. maintain relationships and generate revenue. This encompasses financial assets, human capital and physical infrastructure;
- Key activities: The things that an organization does to make the business model work:
- Key partnerships: This represents the network of suppliers and partners to make the business model work; and
- Cost structure: This represents everything that is incurred to make the business model work and comes from key resources, key activities and key partnerships.



Tool 7: Learning Loop<sup>59</sup>

### Business Model Canvas (1/1)

KEY PARTNERSHIPS Who are your key partners and what resources do they supply? What activities do they perform? Who are your key suppliers?

KEY ACTIVITIES Which activities are necessary to offer and deliver value to outtomers? To support distribution channels and customer relationships? To

KEY RESOURCES Which resources and assets are required to offer and deliver value to your customers? To support distribution channels and customer relationships? To naintain revenue streams

VALUE PROPOSITION What value do you deliver to your customers? Which one of your outtomer problems are you helping to solve, or which needs are you satisfying? Which product/service bundles are you offering to each segment?

CUSTOMER RELATIONSHIPS

What type of relationship does each customer segment expect? Have these relationships been established, and if so, which frontintegrated with the rest of your organization's business model?

CHANNELS Through which channels do customer segments prefer to be reached? How are they being reached now? Ho are diannels integrated? Which ones work best and are most cost efficient? How are channels integrating with oustomer

CUSTOMER SEGMENTS For whom are you creating value Who are your most important customers? Which unbanked or underbanked segments may provide new opportunities?

REVENUE STREAMS. What value are customers really willing to pay for? What do they currently pay for? How are they currently paying? How would they prefer to pay? How much does each revenue stream contribute to overall revenue?

<sup>&</sup>lt;sup>59</sup>http://customersguide.cgap.org/sites/default/files/resource/2016/09/Tool%204%20-%20Business%20Model%20Canvas.pdf



COST STRUCTURE. What are the most important costs inherent in your business model? Which key resources and

<sup>58</sup> See Business Model Canvas: http://customersguide.cgap.org/sites/default/files/resource/2016/09/Tool%204%20-%20Business%20 Model%20Canvas.pdf

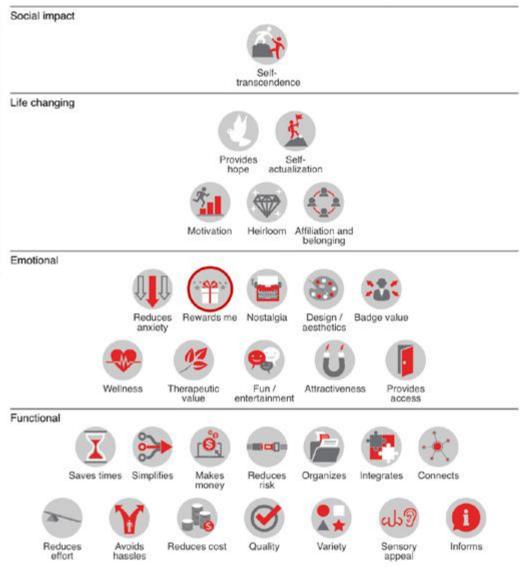
# 10.1 Customer value

What customers value cannot be reduced to a cost-benefit equation, especially with finance. Other factors may be psychological, emotional and related to the power of transformation that finance has, which are harder to quantify.

Bain and company devised an 'Elements of Value' pyramid (see Figure 8), which is based on Maslow's pyramid of needs. They identified 30 elements of value, which can be classified into four categories, i.e., functional, emotional, life changing and social impact. 60 Research done by the firm also shows that understanding what matters to customers can result in product differentiation, revenue growth, price optimization, greater brand equity and a higher Net Promoter Score (NPS).



Tool 8: Elements of value pyramid 61



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There are four key metrics that are of help to understand customer value and value to business. These are presented in Table 3.

Table 3: Customer metrics

Metric	Formula	What does it measure?
Cost of customer acquisition	Total sales and marketing costs/ number of new customers added	The amount spent on acquiring new customers. This is important because it helps businesses think about the revenue lost when customers drop off at an early stage
Churn rate	Number of customers who left/total number of customers (include customers who are dormant for a period of time)	This measures the inverse of retention rate
Customer Lifetime Value (CLV)	Average order total x each custom- er's average number of purchases per year/churn rate	This tells you how much a customer is worth. CLV has to exceed customer acquisition
Customer Satisfaction Score (CSC)	This is just a score given on a scale of 1-5	It tells you how positive the customer experience has been





Technology, like finance, is a tool. Just as we speak about the transformative power of finance, the use of technology holds immense possibility of efficiency, to provide speedier service at lower rates. However, just like finance, technology has to be used responsibly when dealing with customers who are poor, vulnerable and often first-time users of the services provided. When technology does not work in the manner expected, the loss of trust can be dramatic. Providers have to remember that this segment of customers has a much lower appetite for malfunctioning technology, and errors can cause significant losses, both financial and non-financial. Collecting and managing data from this segment is the responsibility of providers, who have to make sure security measures are instituted in managing and storing data, and customer privacy is respected. This takes place by building in privacy upfront while designing business models. Just like all powerful tools, there have to be numerous checks

and balances built into processes by financial service providers to ensure that customers do not suffer any harm.

Customer-centric approaches for poor customers are just beginning to be followed across various parts of the world. We hope that this playbook and snippets of experience and insights from CATALYST's work in Jaipur will inspire fintech companies looking to serve poor customers to adopt the tools and build on our work. We also hope that this playbook will put the customer firmly at the center of dialogue and practice as fintech companies begin delivering solutions to the base of the pyramid. We feel the timing could not have been better, as smartphone penetration continues to rise rapidly in India. The combination of finance, technology and a focus on the customer could well be the mixture that truly catalyzes inclusion and reduces the gap between access and usage of financial services, and that of gender. We see this playbook as the first step in this journey.





Inclusive Cashless Payment Partnership







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





