

# The digital credit landscape

AOD

legal Tender for One Thousand Shilling

igi Elfu Nioja

Focus on Kenya, Nigeria and India



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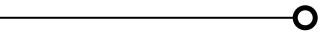
This project and report were funded by the Bill & Melinda Gates Foundation

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# Executive summary

One of the most high-profile innovations in financial services in recent years has been the rise of digital credit, in which loans are applied for, distributed and/or repaid through digital means. Digital credit is a broad term which covers a range of products, and which are offered by a range of providers. Innovations in this space have been driven by mobile network operator-bank partnerships, new FinTech companies, traditional banks, MFIs and non-bank financial companies, and asset financing companies.

This report seeks to understand what the impact of digital credit has been on its users, and the opportunity areas for stakeholders to shape the market. Based on qualitative research with end-users in Kenya, Nigeria and India, expert interviews with providers and domain experts, and a review of available literature, this report focuses on several key areas. To understand the impact of digital credit, this report focuses on the drivers of the cost of digital credit, the funding sources that providers use, the repayment structures on offer for consumers, the data used for decision-making, and the gender gap in digital credit uptake. This report then looks both at opportunity areas for protecting consumers from the downsides of digital credit, and opportunity areas for encouraging and shaping beneficial and transformative digital credit.



**Despite very low overhead costs** compared to traditional loan providers, digital credit Annual Percentage Rates (APRs) can be very high. This report outlines a variety of drivers of this high cost: providers are not subject to interest rate caps that constrain traditional loans, providers can face pressure for quick profits from their investors, a high default risk requires high interest rates in return, revenue sharing arrangements within partnerships can drive up costs, and administrative and data sourcing costs can still be high. This report also argues that while cost is important, consumers are often as or more concerned with other factors, for example access, convenience, amount, and comfort. This said, there is evidence that consumers also struggle to understand and compare product costs effectively.

Digital credit providers source capital through a variety of means, including debt, standard and impact equity (the latter offered by investors with a double bottom line), grant funding, and self-funding/internal investment (in particular for banks and MFIs). This report argues that these funding sources can make a difference to end user experiences. Pressure put on providers by investors for rapid and substantial profits can drive more aggressive lending and repayment practices. As MFIs in particular shift to new funding models, this could become a factor in the types of digital credit that they offer.

Digital credit providers use a variety of data sources to credit score customers, including more traditional financial data (credit history, transactions data, deposits, etc.), and new sources of 'alternative data' (mobile phone records, psychometric scoring, etc.). This report argues that there are barriers to the usage of new sources of data, which constrain the effectiveness of credit scoring models, in particular for thin-file and lower income populations. These include regulatory barriers which constrain data sharing, a lack of capacity within providers, and demand side issues that preclude the creation and sharing of data. However, a regulatory shift towards consumer ownership of data and data portability offers the opportunity for customer-led data sharing.

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There are several types of digital credit repayment structures, including lump sum repayments (the most common), fixed repayment schedules, consumer-determined repayment schedules, and automatic deductions. Consumers typically prefer paying in installments to match their income and expenditure cycles. This report argues that flexible, customer-driven repayment models may be an effective way both protect consumers and increase repayment rates. In contract, new repayment models in which customers lose decision-making power (for example wage garnishment models) may be threats to consumer welfare.

There is a substantial gender gap in the uptake and usage of digital credit products. We argue that this is driven by structural, supply side and demand side issues. Structurally, women lack the foundational requirements to access digital credit, including foundational identification, phone ownership, and business licenses. On the supply side, the well known algorithmic gender bias seen in many industries appears prevalent in digital credit due to male-dominated datasets, while products can also be more tailored to men. On the demand side, women can self-select out of the market due to low confidence in their own creditworthiness, while prevalent social norms can discourage women further. Put together, this report argues that there are several intervention areas for the private sector, philanthropy, researchers and regulators to pursue that can address the challenges and limitations that digital credit presents to customers and providers.

### 01.

Providers, regulators and intermediaries need to help consumers better understand terms and conditions so that they can make better credit choices.

### 02.

Providers and regulators need to determine alternative ways for new borrowers to enter the market. This will lower the first-time default rates that immediately exclude the newly financially included.

## 03.

Industry stakeholders need to work together to create ideal data sharing environments where regulators, providers and other intermediaries responsibly avail, store and distribute better data. This can enable better KYC and stimulate competition.

### 04.

Providers, regulators and researchers need to further explore how loans can be used for new purposes, including investment (vs consumption smoothing). This will be important for digital credit to be more transformative.

### 05.

Providers need to be made aware of gender discrepancies in loan allocation and overall experience, where women are disadvantaged. Some providers may need technical support to correct for this.

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## 06.

Researchers and providers need to experiment with alternatives to generic repayment structures so as to optimize the overall borrower experience. The final application of these alternatives may however require providers to access new loan management infrastructure. Further, there are consumer welfare concerns associated with emerging automated repayment structures.

### 07.

Regulators need support to increase their efforts in curbing increasingly common overly aggressive debt collection tactics observed by some debt collection agencies.

## 08.

Providers should avail more products where loan amounts match specific borrowing needs. This can help reduce defaults and optimize impact.

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## Background

Financial sector digitization has caused changes in both the variety of products available, and the diversity of customers that use them. A major focus area for digitization has been in credit. A substantial number of providers are now offering some form of digital credit, in which loans are applied for, distributed and/or repaid through digital means. This report communicates what Busara has learned about the expansion of digital credit among low-income populations, to understand both under which circumstances it drives positive impacts, and where and how it may cause more harm than good. We explored demand and supply side dynamics by conducting qualitative research with both consumers and providers of digital credit in Kenya, Nigeria and India. On the demand side, we focused on speaking to consumers who were low-income, and who had multiple interactions with platforms of interest. We also ensured that we captured diverse perspectives by gender, borrowing use cases, and previous experience with digital borrowing. On the supply side, we spoke to providers of digital credit, and domain experts within and around the industry. Our qualitative insights are complemented by academic literature and industry related publications.

## Types of digital credit we focus on

We considered platforms that incorporate elements of digital functionality in the requisition, receipt and repayment of credit as digital credit platforms of interest. The industry takes on several forms within and beyond each of our three focus countries. Two main categories are; -0

## Products undergoing digital transformation:

Milestones achieved in financial inclusion are largely attributable to the ability of digital solutions to transform existing formal financial platforms. Banks, MFIs and similar financial institutions throughout the world are embracing digital transformation to harness the ability to cut through access barriers low-income populations often face in formal finance.

## Products that are digital from inception:

These are innovative and disruptive products that are invented without the shackles of traditional approaches to finance. Many that extend these products are new entrants to formal financial services in the developing world, and there is reason to believe that they are here to stay. Overview of types of providers of digital credit, by degree of digitization

Credit type	Non-bank FinTechs	Telco facilitated bank loans	Asset financing (at a micro level)	Credit for micro and small enterprises (MSEs)	Digital offerings from Banks, MFIs and NBFCs
Degree of digitization			Incorporate varying elements of digital functionality in the requisition, receipt and repayment of credit		

The above spectrum highlights the types of credit this report will focus on. There will however be occasions where credit products fit multiple definitions.



#### Non-bank FinTechs

These are usually start-up businesses which offer credit through app or USSD platforms, without a partnership with a bank or mobile network. Prominent examples include Tala and Branch. The terminology of "non-bank" here is essential to differentiate these organisations from those established by banks or similar deposit taking institutions - which are subject to different regulatory implications - and also speaks to the relatively new involvement of these players in the industry. In some jurisdictions they are commonly described as "Silicon Valley loans", which speaks to their purely digital and multinational nature and foreign locations of their headquarters. We will focus on when and how this variety creates impact, where it raises concerns, and what may be next for this rapidly growing variety of credit.



#### **Telco-facilitated bank loans**

This is where banks partner with mobile network operators to distribute loans directly to mobile phones. A popular example is the partnership between NCBA Bank and Vodacom, which offers such loans under different brand names in 3 Sub-Saharan Africa markets. This variety is dominant in Kenya and several other mature mobile money markets, and for many people is the only way to get formal loans. Telcos do not have licenses to lend and are therefore required by governments to partner with banks, who fall under central bank purview.

#### Asset financing (at a micro level)

This can also be defined as purpose driven lending. Items are provided to individuals on credit terms; where requisition and repayment is done digitally. Solar energy companies such as Fenix and M-Kopa have so far been at the forefront of this variety, offering solar panels and other household items on credit, with repayments made via mobile money.

#### **Credit for micro-enterprises**

Credit for micro and small enterprises (MSEs) can be seen as the next growth frontier. Due to various circumstances that we will discuss, MSEs have been largely left out of the formal financial ecosystem. Traditionally, MSEs have received credit from MFIs and have been less of a focus for digital credit. Further, when they do have access to credit, MSEs often rely on expensive and inappropriately structured facilities intended for the retail market. However, some organizations are exploring how to lend to them using new digital pathways.



#### **Banks, MFIs and NBFCs**

Wary of being left behind by the momentum of digital finance and its corresponding benefits, institutions that once practised traditional brick and mortar finance are also increasingly adopting digital credit approaches. This report highlights what their approach to the digital credit market looks like, and what that means for consumers.



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Digital credit has grown and evolved in different ways in Kenya, Nigeria and India. We take a systematic approach to reveal and understand where digital credit seems to be causing meaningful impact on low-income households, where the impact is inconsequential, and where it causes harm. Below we highlight the structure employed to try to answer these questions;

#### Understanding the impact of digital credit

Costs - What contributes to the current total cost of credit? What are end users' views and experiences of digital loan pricing?

Funding - Where does the money come from, and when and why does this matter? Repayment structure - How do providers ask for these loans to be repaid, and how does this choice matter?

Data for decision making - What data do providers use?

The gender gap in digital credit - Why does it exist and how could it be reduced?

#### Intervention areas

Challenges and limitations of digital credit for lowincome users.

How can digital credit be made better for lowincome users?



## Understanding the impact of digital credit

Focus on Kenya, Nigeria and India

# Digital credit's cost dynamics

#### SUMMARY

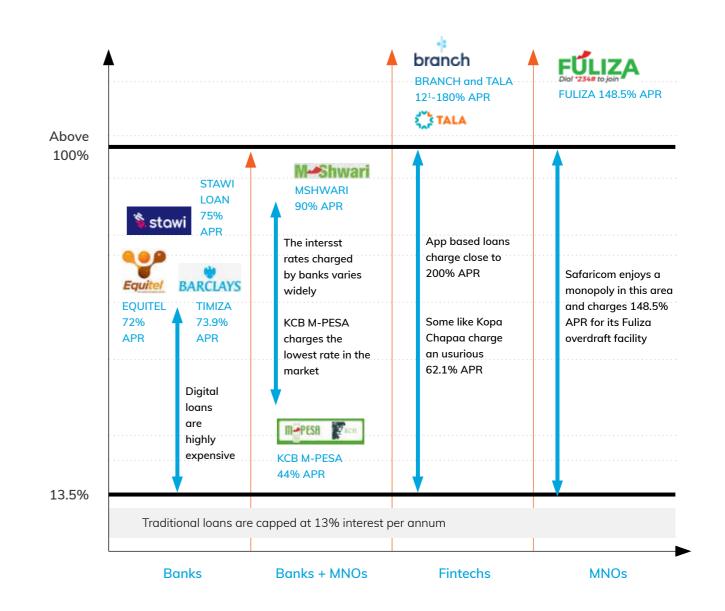
- Digital credit should ideally offer lower prices than traditional models because of lower costs of distribution and overheads
- Providers cited the high risk of lending to customers as the main determinant of the total cost of credit. It is however unclear whether the existence or prospect of reduced risk has resulted, or will result in lower prices.
- Customers value features of digital credit such as easy access and convenience high enough to pay higher interest rates. However, some customers have pre-existing and often inaccurate notions that banks tend to offer more expensive loans; measured by interest rates.
- A lack of understanding of loans' terms and conditions, combined with somewhat predatory lending practices and insufficient know your customer (KYC) regulation leads to high levels of non-performing loans held by digital credit providers. This keeps the cost of credit high.
- Measures by regulators and the private sector could help reduce the cost of credit by creating the conditions necessary for more competition. This could be achieved by better sharing and portability of customers' positive borrowing data, as well as addressing the transparency and comparability of information that providers share.

Conceptually, digital credit could offer broader access to credit in developing markets at lower prices than traditional providers because of their reduced distribution and overhead costs, and their improved collection and usage of customer data to manage risk<sup>1</sup>. When it comes to comparative APRs however, digital credit is not cheaper than other models. In Kenya, for example, fintechs have the highest APRs in the country.

1 A wider circle: Digital lending and the changing landscape of financial inclusion PwC 2019

#### FIGURE 1

\_ Comparison of fintech APRs to those of other digital credit providers in Kenya<sup>2</sup>



Compared with non-digital forms of lending, digital credit involves a different business model. Traditional lenders extend larger amounts to those who they are reasonably sure can repay. They put a lot of effort into figuring out which borrowers are creditworthy, which can be costly. In contrast, because of their low operational costs, many digital lenders offer small value loans to a lot of people, with less regard to their ability to repay.

2 Making Digital Credit Truly Responsible Microsave 2019

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## **The cost of digital credit:**

Why is digital credit not cheaper?

How does cost influence impact potential?



# Supply side perspectives

What influences the cost of digital credit?

#### **Cost contributors**

#### + Regulatory intervention

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Policies can bring down the cost, such as interest rate caps, or drive up the price when providers increase rates in response to risk exposure

+ Nature of the source of funding Investor patience among other factors influence the final price

+ Risk of default

Most providers claim to use risk based pricing

- Revenue sharing in the case of partnership products, such as Banks and Telcos
- + Reference costs tied to information gathered from the reference bureaus
- + Administration costs for managing the product
- + Associated costs for third party developed products



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#### **Drivers of cost reduction** - actual and potential

#### - Regulatory intervention

Policies can bring down the cost, such as interest rate caps, or drive up the price when providers increase rates in response to risk exposure

#### - Nature of the source of funding

Investor patience among other factors influence the final price

- Low requirements for overhead costs and physical infrastructure

- Efficiencies realized from digitization of most operations e.g. lower cost of acquiring and learning about new customers, better decision making through technology etc

#### - Alternative credit scoring

We argue that this isn't happening enough

#### - Competition

We argue that current market conditions don't support competition

Interviews with digital credit providers highlighted that there are, of course, still several costs to consider in pricing digital credit. According to a representative from a provider of Telco-facilitated bank loans, major contributors to their pricing model include the costs of developing, managing, and marketing their digital products, as well as revenuesharing with partners and third-party developers who help with these tasks. Other significant contributors include reference and regulatory costs tied to information gathered from Credit Reference Bureaus and cross-checking customer details with the government registry - a newly introduced fee in Kenya. For many providers, the price of credit is also influenced by changes in regulatory policy such as interest caps or regulations in response to economic challenges caused by Covid-19, as highlighted in Box 1.

#### Box 1: Example of the effects of regulation and policy on digital credit

Interviews with several digital credit providers highlight how responsive their pricing models are to long and short-term changes in regulation and policy. Policy makers are aware that customers suffer from being blacklisted for defaulting on very low value loans, but they are not sure how to better regulate fintechs that are not directly under their supervision. Often, new regulations can solve one problem but create other negative consequences for customers.

For example, in 2020, the Kenyan government suspended adverse listing of low-value loan defaulters to protect them from blacklisting. This was meant to be a form of relief for lowincome borrowers during a time of financial stress caused by COVID-19 lockdown measures. Because repayment rates then dropped, credit providers recalibrated their models to keep their products profitable, making credit more expensive and/or more difficult to access for lowincome borrowers.



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Beyond these factors, the price of credit is also influenced by the type of credit provider and their source of capital. For example, providers who rely on debt investment are often driven to price their loans higher to get quicker returns to repay their investors. This is in comparison to providers, like banks, who don't rely on external investment, can afford higher risk appetite and come in at a lower price point, and in comparison to providers like purpose-driven lenders, who source funding from more impact-oriented investors with longer-term outlooks on profit margins. Another benefit of a model like asset financing is that provision of collateral in the form of the assets also reduces risk and therefore pricing.

structural factors, many digital credit providers describe the centrality of risk in determining price. Administrative costs for digital credit are quite low compared to traditional credit, which is why digital loan providers can profitably lend smaller amounts to more customers. The reason for higher interest rates was most often cited as high rates of defaults, and providers told us they respond to this in two ways:

Beyond these external and



## **Fixed interest rate** (Based on market risk)

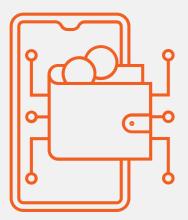


e.g. possibility of 10% default rate = interest rate greater than 10%, retaining profits

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Providers offer different interest rates to individuals based on default probability via risk based model However, such models do not appear to be functioning efficiently yet. Research suggests that customers' repayment habits do improve over time as they take out more loans<sup>3</sup>. However, credit prices do not seem to decrease in response to this general trend. In end-user interviews, no fintech customers mentioned awareness of prices improving with subsequent loans from the same provider. This indicates that risk-based pricing features may not actually be well-integrated into the platforms that these consumers were using, or that price reductions were not significant enough for borrowers to notice. This could change with time as algorithms improve in transferring benefits to the entire customer base and/or individual customers that demonstrate better repayment behavior.



A representative of a mainstream FinTech provider described their tiered credit scoring system as allowing for more elastic pricing for customers in "Tier 1" only (those with lowest risk of default due to optimal repayment behavior). Whilst beneficial for top-tier customers, this strategy is detrimental both to lower-tier customers and perhaps to their own business model. Inflexible high-cost loans for lower-tier customers make credit most expensive for people already struggling with costs of repayment, who will be further disadvantaged through blacklisting. With algorithm development and greater competition in the market, it is hoped that the benefits of lower operating costs could be extended beyond "toptier" customers as risk-based pricing models incorporate a wider range of interest rates based on more personalised risk and repayment profiles.

## Demand side perspectives

Demand side perspectives that help us understand limited downward pressure on the cost of credit can be summarised into two key points:

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Customers aren't only concerned about cost. They also care about access, convenience, amounts, comfort, among other factors. It may therefore be inappropriate to place too much weight on cost as a factor when evaluating the impact of digital credit on its users.

> First, many digital credit customers don't evaluate the cost of credit solely based on the interest rates. We often heard sentiments alluding to digital credit being cheaper than traditional offerings, but this was often in reference to the time and transport costs they saved by not having to go into physical branches to apply for loans.

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### S us understand limited downwo

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Low switching behavior by customers reduces incentives for providers to lower prices. This is because:

**a.** Information needs to be better: people aren't always aware of alternatives, or able to easily compare products based on cost; or other factors they care about.

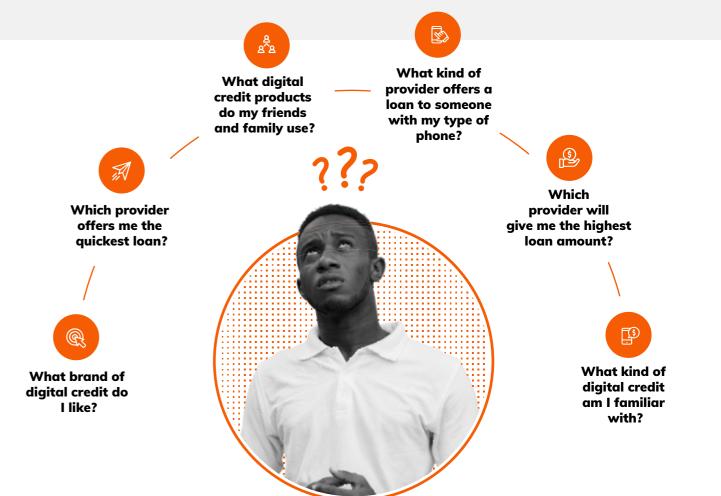
**b.** Customers often aren't able to leverage their credit histories elsewhere. When cheaper loan options that offer similar products exist, many customers prefer to not build credit rapport anew.

### It saves time and I do not need to pay a fare to go and get the money

Female, 38, Kenya



It costs almost nothing to apply except for mobile data to connect to the internet, [whilst non-digital credit] takes a longer period because of paperwork like utility bill, ID card, bvn The below illustrates the argument that looking at cost in singularity is an inappropriate representation of how consumers think about borrowing decisions. While cost will always matter, other factors will remain as important or more important for consumers.



Female, 31, Nigeria

We also learned and inferred from borrowers that cost is often not the top attribute considered when making borrowing decisions. Digital credit offers low-income consumers convenience and wider access, in sharp contrast to traditional finance. Many consumers therefore find the cost of digital credit in interest rate terms acceptable. When other factors we will discuss such as brand affinity join the medley of influences on borrowing decisions, cost can be pushed further down in the pecking order of attributes people care about. Closer attention therefore needs to be paid to trade-offs between cost and value to end users, where the cost of credit commensurates with value propositions.

Further, many participants in our research stated that they or others do not evaluate the cost of credit before borrowing, either because they are desperate for the money or because they feel they do not have the right education or enough information to do so. A theme that will be re-occuring in this report is also information asymmetry, where different providers disclose costs in different ways. This often negatively affects borrower's willingness and ability to carry out ideal cross-comparisons. Some providers break down the total costs into different components, while others state an interest rate or a fee amount in percentage form. Further, the timing of these disclosures is also critical. While providers will usually disclose the cost, some do so at a later stage of the loan journey; which often results in a borrower's reluctance to explore alternatives elsewhere. Few end-users can calculate or understand the APR, a figure that is problematic as a metric for appraising micro-loans but nonetheless reveals how expensive some of these loans are; especially for those that borrow often.

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## The funding

## landscape - and why it matters

#### SUMMARY

- Capital from more patient investors will likely lead to enhanced borrower welfare, as demands for shorter term returns are often passed on to consumers.
- Where MFIs source their capital from is changing, with cheaper options shrinking.
- Some MFIs are introducing shorter term low value loans in response to evolving market dynamics, where they are increasingly exposed to competition from funds for loans that used to provide them with capital.
- Bank led digital loan products don't rely on external funding. They are more likely to have a higher risk appetite for experimentation and compete for market share based on price.

Institutions behind the last mile delivery of digital credit often take center stage when discussing the digital credit industry. There is however a lot to learn about where these institutions source their capital from when attempting to understand how the market functions. Based on conversations we had with providers, the below table highlights the characteristics of investments into last mile providers of digital credit.

<b>^</b>	Investment type	Characteristics described to us	Used by	
0-	Debt	Returns expected relatively soon after investment Limited flexibility; debt repayment core priority Profit maximization priority	FinTechs MFIs	
	Standard equity	Longer term orientation Profit maximization priority for the investor	Asset finance (solar) FinTechs MFIs	
	Impact equity	End user protection and benefit priority Profit maximization priority for the investor	Asset finance (solar) MFIs	
	Grant	End user protection and benefit priority	Asset finance (solar) MFIs	
	Internal investment	Longer term orientation Profit maximization priority for the investor	Telco facilitated bank loans	

Somewhat ironically, we can attribute some of the less than ideal end user loan experiences to the nature of the debt burden placed upon some last mile distributors by their capital providers. Rational investors will always want to maximize their profits, but this can become rather problematic when short term thinking is involved. This is especially true when it comes to debt investments. Pressure to repay time bound debt instruments are passed on to consumers who bear the brunt via high APRs, and are also more likely to experience harsh debt collection practices if they default. In the absence of prohibitive regulations, distributors will rarely choose borrower welfare over their repayment obligations as they pursue market growth and in some cases; survival. The regional head of a large non-bank FinTech provider informed us that a market level shift away from debt investments has been observed in the Kenyan FinTech space, with the economic impact caused by COVID-19 playing no small part. This issue is exemplified by the ongoing issues faced by "Real People", a FinTech that issued bonds and then defaulted on payments to investors<sup>4</sup>. This occurrence has caused several non-traditional investors to pull out of the fintech lending market, or to rethink entering it. Providers that are purely digital in nature often attract private equity, venture capital or similar investors. These investors usually prefer companies with lean overheads, such as most FinTechs. Lack of in-person touch points and reliance on machine learning to make operational decisions reduces the need to hire many staff. This, coupled with their ability to sell expensive loans makes them attractive to investors that want to quickly invest and divest. Further, investor pressure may force lenders to keep to the high-end and already profitable market, rather than exploring new models that are appropriate for currently higher-risk, lower-income borrowers.

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<sup>4</sup> Real People gets nod to delay bond payment Business Daily 2020

This is in contrast to providers that attract capital from impact investors. We spoke to the global credit manager at a solar unit asset financing company that started out offering solar energy equipment on credit but has now also ventured into household items and cash on credit as well. He informed us that although they are nowadays attracting investors with different priorities, core investors remain impact oriented. Whilst these investors all expect the company to remain profitable, their strategies more often consider impact on end users. This orientation is often made permanent by board representation, ensuring oversight of operations to avoid harsh debt collection practices and protect consumers against blacklisting among other consumer protection priorities. They also choose to invest in better KYC protocols and better scoring, which is in contrast to other providers who accept higher default rates and rely on pricing to protect their bottom line.

Microfinance as an industry is more widespread and as a result, the investment dynamics vary widely. We spoke to the leadership at a Kenyan women-focused microfinance. They offered some insight into how funding has evolved over his 25 year experience in the Kenyan MFI space.

borrowing

(banks)

1980's when Microfinance emerged

Impact grants

Subsidized social/ development loans

Commercial Capital providers becoming last mile providers Emerging trends

While MFIs have largely retained impact prioritization, we learned that the funding dynamic has been gradually changing, at times making this more difficult. As illustrated above, the space has been moving towards self sustainability and away from donor reliance. MFIs are increasingly leveraging their speciality in extending loans to lower income rural populations; with banks increasingly willing to give them loans as banks lack the business model required to extend financial services to the lowest income demographic. Larger MFIs are able to avoid high interest rates that banks in developing countries typically charge, because the same banks also hold MFI deposits as security. These cheaper bank interest rates are not available to other digital loan providers; another factor behind

product differentiation by type of

as a threat to MFIs.

provider. There are however changing funding dynamics that can be viewed

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Due to diminishing barriers to entry including lower set up costs, we learned from this womenfocused microfinance that some institutions from Europe and North America that used to provide capital to MFIs are beginning to become last mile providers themselves, with digitization giving them the opportunity to do so. MFIs therefore compete with foreign entities that used to provide them with capital, but now directly and aggressively lend to the same end user. This among other market factors has created greater demand for shorter term and more digital loans, that MFIs including the womenfocused microfinance are now forced to adapt to. This will have implications for impact, as MFIs begin to respond to trends in market demand for short term loans; rather than strategically supply loans that benefit the poor.





### MFIs lack shielding from exchange rate fluctuations.

Reluctant to get left behind by the wave of advancement of digital finance, banks have also invested in developing their own digital credit products both through telco partnerships, and through offering their own new services. NCBA bank in East Africa for example partners with Vodacom, a multinational telco; but also offers enterprise credit via a product called NCBA loop. Their funding stream is entirely reliant on internal strategy, making them both the capital provider and the distributor unlike other digital credit varieties. Also, by virtue of being banks, they have larger amounts of capital at their disposal, allowing them to quickly extend loans en masse via telcos. For at least one supplier of telco facilitated bank loans, we learned that this dynamic brings with it a degree of openness to risk as far as pricing, credit scoring and lenience in the borrowing process. The mobile lending manager at a bank providing loans through a mobile network operator gave an example of how they extended grace periods for their loans during the peak of the economic crisis in Kenya caused by COVID-19. He also informed us that their pricing strategy is entirely dependent on long-term profitability, with no attention paid to prices for comparable loan options in the market.

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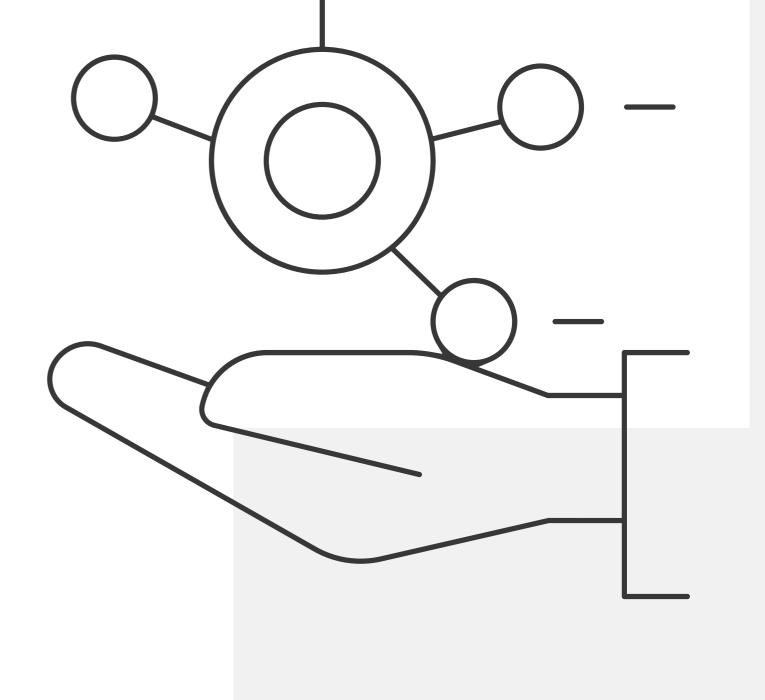
The Chief Executive of the Microloan Foundation also shed light on funding dynamics that influence operations. MFIs lack shielding from exchange rate fluctuations. We learned about an MFI that could not survive as a result of the Zambian Kwacha's devaluation at one point in time. Similar to the insight from the Kenyan women-focused microfinance, he also informed us that it was becoming increasingly difficult to secure interest free capital. His, like many smaller MFIs, are blending subsidized capital with expensive loans. MFIs are therefore faced with an increasingly challenging task of balancing the need to ensure their services benefit poor borrowers, but also that their institutions are able to meet their dues to funding partners who are changing in name and priorities.

## The current and future role of data for decision making

#### SUMMARY AND RECOMMENDATIONS

- Alternative data is currently underutilized and could be a way to help control default risks that providers are exposed to, which should in turn drive down price.
- Use of alternative data requires the combination and use of robust datasets, some of which may be missing for providers. Legal, infrastructural and cost barriers to better data sharing need to be identified and addressed.
- Alternative data for scoring is still a relatively new field, and many in the financial industry need more evidence presented to them in a palatable way. This is especially true for providers in the digitization process who still place a lot of weight to existing scoring models that have historically performed well.
- Policy regimes are increasingly shifting data sharing decision making autonomy to end users. As a result, we need to better understand what data consumers are willing to share to loan providers; including the how and why.

Most types of digital credit require no collateral to guarantee loans, therefore rely heavily on data to help them make better decisions on credit worthiness. We can rely on insights given by providers, along with what we know about the industry, to highlight how data is being used and what the implications are for end users. Overall, we argue that data as a resource is currently not leveraged to its full potential. This may however be due to the reliability of more simple, conventional data resources and/or the unavailability of some types of data. Changes to the availability, depth and use of traditional and alternative data resources are both required to create a positive impact for end users. These changes promise to create downward pressure on interest rates, and increase inclusivity when it comes to allocation decisions. The list on the next page summarises the main types of data providers are, or could be using.



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## 01

## Traditional sources of data

### a. Historical loan usage and repayment data

Due to its reliability in identifying future borrowing behavior, all providers give weight to this kind of data when making decisions. Where this form of data does not exist or is limited, providers create their own records by extending small value loans to identify borrower behavior thereafter. Providers can usually pull this data from credit reference bureaus. However, in several countries there has been a practice of some digital credit providers only telling credit reference bureaus when people have defaulted (negative listing) and not when they have taken a loan and repaid (positive listing). This is problematic because as discussed earlier, customers aren't able to leverage their positive credit history with new providers they may want to switch to.

#### b. Transactions data

Especially in mature mobile money markets, phones will host considerable amounts of individuals' transaction data. This helps providers approximate income brackets, which helps to approximate how much a borrower can withdraw. Transactions are often verified via SMS, which are stored in mobile handsets. Providers such as FinTechs have the ability to access SMS records and identify instances of transactions, which provides a granular outlook on borrowers' financial lives. Banks also have access to rich data on their customers who have historically used banking services.

#### c. Deposits

Many providers will extend credit on the basis of the amount of deposits the borrower holds. MFIs and telco facilitated bank loans often rely on this model. FinTechs and other institutions can also access information on average balances on saving and transaction accounts (mobile wallets) for similar purposes.

#### d. Business records

[For MSEs] Records such as revenue and expenses, cash flows, distributor records and inventory data are increasingly relied upon to enable credit providers understand whether and how to extend credit. However, structural barriers can arise where informal enterprises struggle to keep formal business records, creating a weak data trail that in turn causes reluctance to lend to informal enterprises. This is an area the private sector and market support entities are looking into, via the development and implementation of digital solutions. However, progress has been slow, as such solutions often compete with the widely preferred pen and paper.



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### **Alternative data**

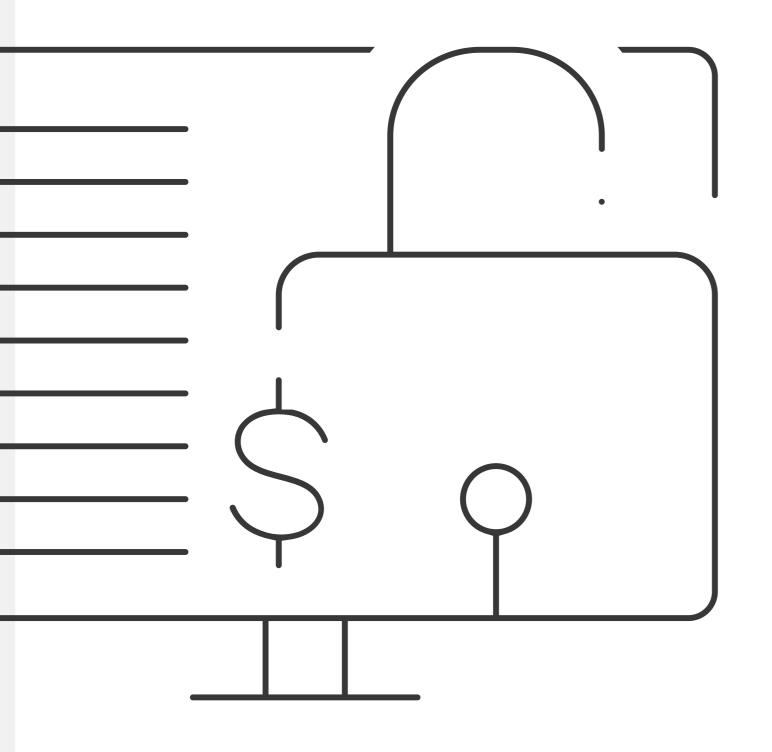
This involves a world of new ways in which providers can try to understand financial behavior. We hypothesize that the previously listed types of data are perceived as sufficiently reliable by providers, causing them to view alternative data as adding only incremental value at best. However, there are benefits to end users when providers make use of non-traditional data. For example, additional data sources provide a better way of granting first loans compared to current practices that cause exclusion for many first time borrowers. Promising fields in alternative scoring are:

#### a. Smartphone data

Social media activity, browsing behaviour, geolocation, text and call logs among many other data points are available among borrowers that own smartphones. It is worth noting, however, that transaction data derived from SMS logs may still be the primary source of data for providers who claim to draw from more complex smartphone data sources for scoring.

#### **b.** Psychometric scoring

There is research that suggests a strong connection between an individual's personality type and their likely behaviour with a credit or insurance product<sup>5</sup>. This approach can supplement other scoring techniques and can be especially useful when appraising new borrowers, or those that have defaulted in the past.



When we spoke to different providers about how they go about understanding their customers, our conversations largely revolved around using financial data. One of the largest multinational FinTechs told us that they use proprietary tools to estimate the lifetime value for each customer throughout their borrowing lifecycle, which determines their tier classification and ultimately the interest they are charged. While the use of machine learning and AI is abundant, it's not entirely clear the extent to which alternative data is used. Because of reluctance to disclose proprietary information or due to outright lack of use, we did not learn anything that indicated the use of alternative data during our interviews.

Focus on Kenya, Nigeria and India

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Suggested reasons behind limited use of alternative data:

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Providers don't have enough access to alternative data

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**Providers** 

alternative

don't yet trust

The link between the nature and size of one's social network and probability of repayment for example is not as clear cut as measures involved in analyzing financial data. Awareness building and further contextualization would therefore be required to build familiarity and trust with alternative data.

A lot of alternative data is available only from smartphone users. Also, there may be missing

data that is available only when there is better

collaboration from other institutions e.g. telcos

and social media companies.



#### – Data privacy issues

6 Study Shows Kenyan Borrowers Value Data Privacy, Even During Pandemic

data

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There may not be enough internal expertise or locally available consultants that can advocate for the use of alternative data, then incorporate it into their credit scoring models.

Data privacy policies in many developing countries are still in development or recently published. The potential of alternative data is realized when vast amounts of it are captured, which borrowers may not always be comfortable parting with, even if they trade it off for a better loan product. In order to avoid reputational damage and avoid legal challenges, providers may therefore be hesitant in accessing such data. CGAP and Busara studied whether borrowers in Kenya would accept to pay for more privacy in the loan application process via an experimental approach<sup>6</sup>. We found that slightly more borrowers preferred to pay a premium for privacy than those that consented to less privacy to access a lower interest rate.

There is evidence that alternative data can optimize for accuracy and inclusivity in credit allocation decisions. An analysis of outcomes of using traditional scoring methods in microfinance compared to the use of alternative smartphone data found that alternative approaches to scoring led to lower instances of defaulted loans, as well as more loans disbursed, compared to top approaches used in scoring for traditional banking<sup>7</sup>.

It is however important to note that even if providers grow their interest in leveraging alternative data; government policies, private sector dynamics as well as human behavior all represent key barriers. The below highlights these key barriers related to better data sharing, which are more likely to be observed in developing countries<sup>8</sup>.

#### Regulatory **Barriers**

- Regulatory mandate
- Regulator capabilities and Enforcement capacity

## ▦

#### **Private sector Barriers**

- Data Protection & Privacy Laws
- Data quality issues
- Capability gaps



#### Consumer **Barriers**

- Smartphone ownership and data access
- Digital & financial literacy
- Behavioral biases •

7 Credit Scoring in Microfinance Using Non-traditional Data

Data sharing and protection lunch and learn: Open Banking UK & India's Consumer Empowerment Model

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Governments in different jurisdictions have recently, or are in the process of implementing data privacy laws that will make for a better data sharing environment or potentially, make it worse. Developing countries will likely seek to replicate data privacy policies from developed markets. Kenya for example adopted GDPR, a policy model initially created by and for the EU<sup>9</sup>. While these policies offer the highest standards of privacy and protection, they may require further contextualization to ensure they foster safe and effective data sharing to create market conditions necessary for different digital environments.

Data privacy legislations often ensure that consumers are granted more transparency on how their data is used and in some cases, provide consent. A study by Dvara exploring the role of data privacy in the future of finance in India revealed that consumers strongly favored a rights based approach to data protection<sup>10</sup>. Even when it comes to transaction data - which consumers tend to be more willing to share they wanted providers to first seek their consent and wanted a guarantee that no harm would come to them through malicious use of their data. As policy requirements and consumer preferences increasingly involve end users in the data sharing process, we need to be aware of behaviors that may influence how they promote or inhibit ideal data sharing.

There is a growing body of research showing that our data privacy preferences may be prone to a number of behavioural biases. Below are some illustrative examples of how behavioural science concepts can explain how people make decisions when it comes to decisions around data privacy<sup>11</sup>.

## Behavioural dynamics at play in data sharing



#### **Framing Effect**

Choices can be presented in such a way that highlights either their positive or negative attributes. This influences the end user's decision to share their data.



#### Hyperbolic Discounting

Users disclose personal information for immediate gratification, while simultaneously subjecting themselves to privacy costs that may be incurred months or even years later.



#### Anchoring

Tendency of individuals to disclose more personal information as a result of perceiving that other people have already or usually share this information.

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#### **Illusion of Control**

Tendency of individuals to perceive more control over their own data and underestimating risks that are, in fact, out of their control.

9 Kenya has passed new data protection laws in compliance with GDPR — Quartz Africa

- 10 PRIVACY ON THE LINE
- 11 https://intactprivacy.com/wp-content/uploads/2020/12/IntAct-Report-Behavioral-Experiments-in-Data-Privacy-compressed.pdf





#### **Rational Ignorance**

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Individuals tend to disregard reading a data holder's privacy policy as they believe the time cost associated with inspecting the notice will not be compensated by the expected benefit from information disclosure.



#### **Endowment Effect**

Users overvalue something that they see as belonging to them, in this case, their personal data.



#### **Status Quo Bias**

The preference to maintain their current state and avoid changes, even beneficial ones. For example, most individuals keep the highly permeable default privacy settings instead of changing the setting to reflect their privacy values.



#### **Loss Aversion**

Individuals are more willing to accept money in exchange for disclosing personal information than they are willing to pay to regain control over the same information.



#### Information Overload

Presence of too much information online prevents the individual from evaluating the various options and making a good decision. There also exist gendered preferences when it comes to data sharing. Research from Google's Next Billion Users project revealed that especially in low and middle income countries, women's phones are often shared, mediated, or monitored by family members. The majority of women in the study worried about family, community members, and strangers having access to their online data and identity, which causes them to more frequently withhold information or use non-identifying details.

#### Discomfort with sharing personal information online 0 🔂 Man Woman Bank info 76% 76% Workplace name 61% 53% Email address 56% 41% Phone number 53% 38% Profile picture 44% 26% Full name 43% 27% City or region 41% 32% Aqe 37% 20% First name 31% 18% Gender 26% 12%

The implications of these behavioral biases and preferences suggest that the creation of ideal data sharing environments needs to go beyond regulation, infrastructure and supply side dynamics. As more agency in data privacy is handed to the end user, we need to better understand what data consumers are willing to share to loan providers; including how and why.

12 https://kstatic.googleusercontent.com/files/5aa6a02a0a6239d9b60ebcd2b05641431354e9c27319d8a532c71de2c15cd4341581c92226f8eb39485118b0e7b8efcad45f27dd 3899c1b9eb9258d90aac07a5



#### Focus on Kenya, Nigeria and India

## The digital credit

## repayment process

## and implications

#### SUMMARY

- People prefer to make multiple small installments for digital loans due to the pre-existing nature of their inflows and outflows. More products that have repayment structures more malleable to this preference may result in welfare optimization across measures.
- Repayment structures will determine whether, or the extent to which credit will be used for productive purposes.
- Further research and experimentation is required to validate whether flexible payment schedules result in the desired impact on borrower welfare, while also preserving loan portfolio quality for providers.
- Increasingly digital economies will allow for the wider application of automatic repayments; an approach that may have some benefits but also has consumer protection concerns. Gig economy workers are more likely to interact with this form of payment; and they will need protection.

The manner in which loan providers structure the repayment process has clear and direct implications on borrower welfare and ability to repay on schedule. There are 4 common variations on repayment structures for credit products:

#### 01. Lump Sum

Where the borrower pays the entire amount due in one installment (principal and interest) on or before a specified due date.

#### 02. Fixed repayment schedule

Where the supplier indicates precisely by when each installment needs to be paid e.g. at the end of every week, or at the beginning of every month.

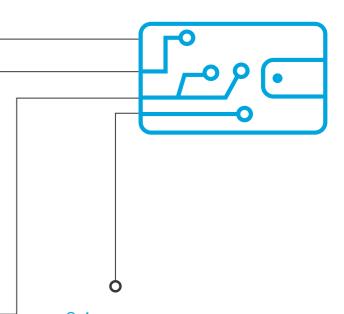
03. Consumer determined

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repayment schedule Where the supplier indicates precisely by when each installment needs to be paid e.g. at the end of every week, or at the beginning of every month. 0



#### 04. Automatic repayment

Some digital loan products are able to automatically debit loan installments or the full amount from a borrower's current account. This is more common where the borrower is late in repaying; and the provider has the ability to automatically debit the borrower's other transaction or savings accounts if/when they have access and permission to do so.



The borrowers we spoke to had diverse preferences for how they chose to repay their loans. However, the most common preference across varieties of digital credit, geographies and use cases for borrowing was to frequently make small repayments.

I am not able to get the [\$15 I need to repay] at once as I have to rely on casual jobs which pay between [\$2 -\$2.5] a day, and I am not guaranteed to get it the whole month, so I am more comfortable paying in small bits.

Gladys, casual laborer, 38, Kenya

Due to the small size of many digital loans, most products in the industry only require a lump sum payment. The preference to repay in installments we heard about is therefore often voluntary. The preference to repay loans in installments makes sense in the larger context of the financial lives of lower income borrowers. The following factors highlight the context and explain why it contributes to the preference for installments over lump sums:



51 PAGE

## Incomes are often insufficient, irregular, or both

Many we spoke to often struggle to create and hold substantive cash deposits to enable them to make bulky expenditures. Expenditures are also often made depending on income that was made each week or at times, each day.



#### Many have multiple sources of income to help them meet expenses

Low-income borrowers often have to rely on multiple income streams to enable them to meet even basic expenses. This implies that small amounts of money come in from different ventures, and it is equally likely that small amounts are simultaneously spent and invested in multiple places.

## Many don't have autonomy in financial decision making

Women and youth often aren't in charge of making decisions across the borrowing life cycle. The loan repayment experience is therefore likely intertwined in a complex web of household incomes and expenditures, as highlighted above. There do however exist digital loan products that require fixed periodical repayments. These are more often products emerging from institutions that previously preferred this structure during brick and mortar operations. Preference for this structure is also rooted in the fact that they often extend larger loans, and as a result require more elaborate enforcement mechanisms to guide the borrower towards full repayment. Repayment schedules often come prescribed by the provider with limited flexibility.

I like the fact that I am given the option to pay ranging from 2 week, a month, 2 month etc I paid back my last loan every week; that plan works for me [because] it won't affect my business because the profit from my business is not much to take a long term loan that [would] take all that away.

31 old female money agent, Nigeria

The concept of a borrower being able to determine their own preferred repayment schedule is still nascent in the industry, but there is reason to believe that it could be a way to improve the borrower's experience and impact. Many financial service providers that embrace inclusive finance are moving towards designing transactions, saavings and borrowing products that are better aligned to people's incomes and expenditures. Progress could be made through having the borrower involved to some degree in the design of the repayment process for loans that they withdraw.

The mainstream status of fixed repayment schedules is however justified by research and theory. Micro-finance practitioners argue that the fiscal discipline imposed by frequent repayment is critical to preventing loan default<sup>13</sup>. Measures to prevent default are a priority for providers and those concerned with borrower welfare, explaining why this approach endures for digital credit and/or microfinance for low-income populations. However, there is emerging evidence that flexible terms do have benefits for the borrower and provider. An experiment done on microfinance borrowers in India emerged with the following conclusions<sup>14</sup>:

### 01

The rigid and frequent repayment schedules that borrowers tend to be bound to often incentivise lowrisk, low-return business activities

## 02

Results from the experiment showed that flexible repayment schedules lead to higher repayment rates, compared to fixed schedules

### 03

Results also showed that flexible repayment schedules led to higher overall business performance, among those that owned businesses

13 Repayment Frequency and Default in Microfinance: Evidence from India

- 14 Repayment flexibility, contract choice, and investment decisions among Indian microfinance borrowers
  - 15 (PDF) On the psychology of poverty
  - 16 The Burden of Household Debt November 13, 2020 [Link to the latest version]

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Flexible repayments could be part of the solution to reducing stress during the repayment process - a critical theme we observed while speaking to borrowers. For example, one borrower we spoke to indicated that he preferred to make lump sum payments rather than frequent installments, primarily to avoid the stress of always making loan payments. Johannes Haushofer of Busara is a leading academic in the study of the link between mental health and poverty. He and others have provided evidence that stress has psychological consequences that can lead to economic behaviors that trap people in poverty. There is reason to believe that stress can lead to poor decision making, as people favor habitual decisions at the expense of goal directed ones. Therefore, we need to be better aware of how the structure of loan repayment processes affect the stress and mental well-being of borrowers, and the further reaching implications than those seen at face value.

A recently conducted experiment in the USA sought to understand the effect of the burden of debt on financial decision making. Beyond debt's direct consequences on credit scores or liquidity, the experiment found that it causes significant deviations from typical and expected maximizing behavior among participants. The disproportionate focus on trying to repay negative balances often led to foregone opportunities and more financial mistakes. This was further supported by the finding that once the debt burden became unbearable and the participant chose to not repay, the participants returned to maximising behavior. It may be plausible that when the repayment schedule is misaligned to the borrower's repayment preferences, it causes stress and knock on effects.

The digital credit landscape

The transition from fixed to flexible repayment structures represents significant strategic and operational change by providers. They would need to invest in enabling infrastructure to allow for it to happen. Software and other enabling factors are often either difficult to find, or expensive especially for smaller scale credit providers. The development of context relevant and affordable infrastructure would therefore be a key consideration, if the switch were to be made to flexible repayment arrangements.

Automatic repayment is likely to be increasingly favored by digital lenders. Borrowers with digital accounts offer better data trails to aid loan decisions. Some lenders are choosing to go one step further and automatically deduct repayments from digital accounts to further guarantee repayment. There are some potential benefits of this option. Ideally, lenders with access to digital accounts should be able to charge a lower interest rate rate because their risk exposure is significantly reduced due to their ability to more directly initiate the repayment process, and use digital account data to make more accurate credit appraisals. Further, the loan structure can be built in a way that's suitable for the borrower; where the amounts and tenure can be built around reliable information on the borrower's financial behaviors and abilities.

There are however some concerns with this approach to loan repayment. With other forms of credit the borrower can default if they have to, which is important for low-income borrowers who face unplanned shocks and emergencies. This model essentially takes away consent at the point of repayment, which can be problematic from a consumer protection perspective. Further, the model poses the risk that some borrowers may choose to transact outside digital ecosystems in order to avoid automatic loan deductions. One example of this is an overdraft facility for digital accounts in Kenya and Tanzania called Fuliza, operating on the popular M-Pesa platform. The facility allows for multiple overdrafts, which at times makes it easier for users to fall into deeper debt than they can handle. As a result, individuals with high debts from Fuliza often ask for transactions to happen outside of their M-Pesa account; in order to avoid automatic withdrawals of their inflows towards loan repayments. A key consideration when discussing the application of automatic deduction is who it can and likely will be applied to. Gig economies represent a significant disruption to how people earn a living and handle their finances. Online platforms at the core of gig economies link suppliers of goods and services to digitally savvy consumers, with digital solutions often used to automate transactions. One example is ride hailing apps, where drivers automatically receive their share of revenue depending on mileage. Given the transparency of transactions on such platforms, digital credit providers are seeking, and will continue to seek partnerships with them to extend credit solutions to gig workers. Further, the volatility of incomes associated with being a gig worker suggests that they could do with credit solutions designed specifically for their needs and realities. In Kenya, CGAP spoke to these platforms and their partners to understand how financial service could best be extended. The lenders they spoke to preferred to establish the means of repayment upfront, with many among them preferring automatic deductions from incomes<sup>17</sup>. As digital gig platforms scale, policies and regulations around important areas such as taxation and social protection for its workers have been slow to follow<sup>18</sup>. This, coupled with uncertainty around the impact of the application of automated repayments suggests gig workers will need more protection. There needs to be a wider effort to understand and predict welfare outcomes for gig workers who will likely engage with automated credit repayment arrangements.

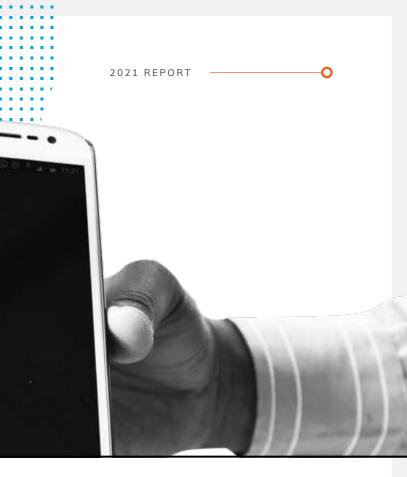
Withdraw Cash

oans and Savings

Lipa na M-PESA

My Account

Financial Services for Platform Workers: Lessons from Partnerships
OPERATING DIGITAL GIG PLATFORMS IN DIFFERENT REGULATORY ENVIRONMENTS



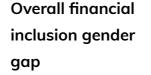
## The gender gap in digital credit

#### SUMMARY

- Despite efforts to close the gender gap in financial inclusion, the current state of digital credit still faces some key issues. Broad trends of lower smartphone usage and less autonomy over financial decisions contribute to gender inequality in the use of digital credit
- Unequal phone usage by gender leads to women's underrepresentation in data that providers rely on to understand their customers. This leads to providers being limited in their ability to understand women, and providers seem to be unaware of this dynamic
- Credit products and credit-scoring methods are built with data that has been collected predominantly from men, biasing them against women
- Lenders themselves often do not understand or account for gender differences in their • business models and practices, leading to a bias in the level of tolerable risk in male versus female customers
- Lessons can be learned from MFIs who have always had a strong focus on women and a more hands-on approach to understanding and catering for their customers' specific needs. Such lessons include recognising that women need more engagement than men to take out a loan, and that they are more likely to seek specific-use credit
- More careful tailoring of products to suit customer profiles would help close the gender gap and extend digital credit offerings further into other markets such as more rural populations

#### The gender gap in Digital Financial Services

KENYA





Gender gap in **Digital Financial** Services

The above figures represent the difference between men and women as far as their usage of any formal financial service, as well as the difference between men and women as far as their usage of financial services that are digital in nature.

19 Financial Services for Platform Workers: Lessons from Partnerships

- 20 Mapping the Gender Gap: Tracking movement and identifying causes for the male/female divide in financial inclusion
- 21 How India could speed up the financial inclusion of women
- 22 Where are the women in the digital credit bandwagon? Lessons from Kenya 23 Bridging the Digital Gender Divide in Financial Inclusion
- 24 Mapping the Gender Gap: Tracking movement and identifying causes for the male/female divide in financial inclusion

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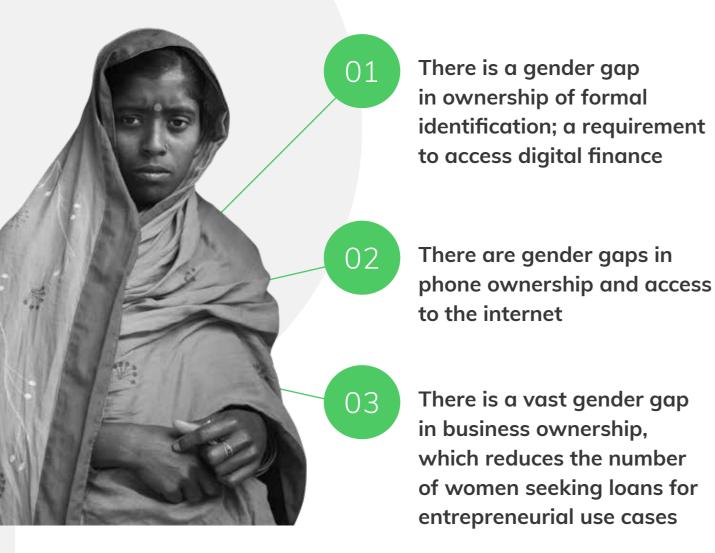


 $90_{19}$   $100_{20}$   $110_{21}$ 

 $26\%^{22}$   $24\%^{23}$   $12\%^{24}$ 

## Structural drivers of the gender gap in digital credit

In order to understand the gender gaps in finance, we first need to understand the structural factors that underlie it;



Structural barriers for women begin early on in the journey of access to formal finance. Official proof of identity is fundamental to an individual's ability to exercise their rights and secure access to a range of vital services, such as healthcare, education, mobile connectivity, social security programmes and financial services<sup>25</sup>.

▰	

Country	Share of male population (15+) with a national ID	Share of female population (15+) with a national ID	Gender difference in national ID ownership
Bangladesh	82.9%	81.3%	3%
Botswana	96%	96.2%	-0.5%
Nigeria	47%	42%	11%
Rwanda	90.6%	89.4%	3%
Sri Lanka	92.1%	89.8%	5.2%
Uganda	81.4%	80.5%	2%
Zambia	86.5%	85.1%	3%
Zimbabwe	84.1%	82.9%	3%

N.B: Positive percentages in this column mean that men have higher rates of national ID ownership and a negative difference means that more women have a national ID

As many as 45% of women in low-income countries do not have access to foundational IDs, particularly in Sub-Saharan Africa and Southeast Asia. This represents a significant structural barrier which if not addressed, will lock out women from any variety of formal financial services. There have, however, been efforts in many jurisdictions to introduce interventions to address these barriers; ranging from new or revised policies within identity ecosystems to leveraging digital technologies such as biometrics. Identification among other barriers creates a gender gap in access to basic infrastructure required for women to access digital finance.

25 Exploring the Gender Gap in Identification: Policy Insights from 10 Countries

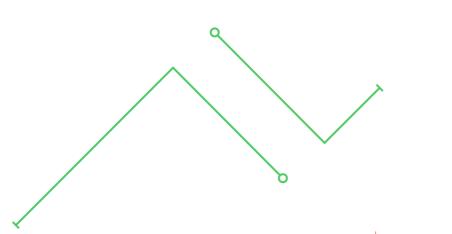
Focus on Kenya, Nigeria and India

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**Regional gender gaps Regional gender gaps** in mobile ownership in mobile internet use 2017 - 2019 2017 - 2019 1% 5% East Asia 2% 4% & Pacific 1% 3% Latin 2% 6% 1% 2% America & 1% 1% Caribbean -1% 6% Europe & -1% 6% Central -1% 5% Asia Middle East 8% 20% 9% 19% & North 9% 21% Africa 13% 37% Sub-38% 13% Saharan 37% 13% Africa 27% 67% 28% South Asia 23% 51% 9% 27% LMICs 10% 23% Overall 8% 20%

2017 2018 2019



Insights from GSMA'S mobile gender gap report reveal that women are less likely to own mobile phones, and use mobile internet even less often than men26. For lower and middle income countries (LMICs), women are about 8% less likely to own mobile phones; suggesting that if and when they need access to digital credit, large cohorts of them either can't get it or rely on sharing devices with others. Further, the gender gap is quite pronounced when it comes to internet usage. This is likely due to prohibitive costs of smartphones and data. The implications of this are that:

Many women are locked out of digital credit platforms that require internet connectivity. Internet enabled digital credit platforms such as non-bank fintech loans may present better value propositions, now or in the near future.

The internet is an ideal platform for sharing information, and promoting financial education. Both of these will be important in ensuring the optimal usage of digital credit services amongst women. On average, conventional approaches to financial education have not been successful in either imparting lasting knowledge or in changing people's financial behavior<sup>27</sup>. Mobile devices and the internet can enable financial education to be personalized, which is one among other key factors that are believed to improve the effectiveness of financial education.

Data used to understand potential borrowers lacks gender representation, in part due to the gender gap in internet usage. (Further detail on this is provided when we discuss algorithmic bias)

If female-owned MSEs can't use digital tools, they leave behind no data trail for use by credit providers or other stakeholders to add value to their businesses.

26 The Mobile Gender Gap Report 2020

27 Beyond the Classroom

28 Women entrepreneurs needed—stat!

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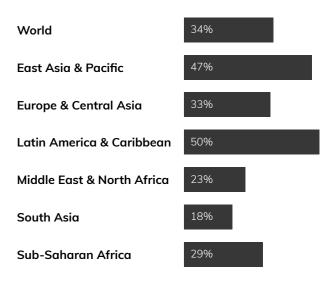
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A significant and growing use case for digital credit is to enhance productivity and smoothen liquidity for enterprises. With that in mind, the gender gap we see in usage of digital credit could in part be due to the gender gap in ownership of enterprises themselves.

#### Share of small, medium, and large firms with a woman among the principal owners (%)



Source: World Bank gender data portal<sup>28</sup>

The digital credit landscape

The gender gap in ownership of enterprises is perpetuated by a host of factors such as challenges in inheritance rights for women<sup>29</sup>, among other cultural and legal factors. However, as policies are updated and societies evolve we will likely see the emergence of more female entrepreneurs establishing and running micro and small enterprises. Digital credit will likely be the most relevant credit tool for these enterprises, this indicates a potential future growth market segment.

Gender disparity in the larger credit industry has long been an area of concern. In many circumstances, human biases are attributable to the phenomenon of women receiving fewer loans, loans that are not appropriate for their needs, or experiencing disadvantages at some point on the loan journey. A recently conducted mystery shopping study done in Uganda revealed that 28% of women spontaneously (without request) received information on the cost of credit from banks, MFIs and loans as well as savings groups; compared to 41% disclosure of the same for men<sup>30</sup>. When it comes to digital forms of credit, another immediate barrier is the lower rates of smartphone ownership amongst women compared to men. But even for women who do have access to smartphones and autonomy to choose from the array of digital credit options, the next barrier they face is that they are not well understood by lenders. Due to the skew in smartphone ownership and because men have been the primary consumers of credit in the past, credit scoring algorithms are trained on data that is already biased and lacks adequate gender representation. And because these algorithms are opaque - even to the lenders themselves - it is difficult to detect and regulate if and when biases are excluding or harming borrowers31. Gender is generally explicitly excluded from fintech credit scoring algorithms, but this does not stop it from becoming a determining factor for granting loans. This is what happened when the Apple Card offered smaller lines of credit to women than men, despite the fact that gender is not used as input in their algorithm32. Although the example comes from developed markets, it highlights that these biases only emerge once the algorithm is in use.

Beyond problems with biased machine learning, lenders themselves also have more experience with credit scoring and lending to men. It is commonly reported that women default on their loans less frequently than men, but a Women's World Banking representative notes that this is not necessarily because women are actually better at repaying money than men. It might also stem from a lack of understanding about gender dynamics in loanrepayment behaviours and so financial institutions end up approving only low-risk women whilst often approving average-risk as well as low-risk men.

Rather than explicitly excluding gender from risk assessments, digital credit providers should seek to better understand and incorporate women's behaviours into their business models, not only to improve gender equality but because it will open up a market for providers. Thus far, institutions with more of a focus on women are generally behind the curve on offering digital forms of credit. The microfinance sector has always had a gender focus - 98% of MFI clients in India are female borrowers (Bharat Microfinance Report 2020) and there are several institutions across Sub-Saharan Africa that lend exclusively to women - but it offers the least digitised credit model.

31 Tiny Loans, Big Questions The Smart Campaign, 2017

32 The Apple Card Didn't "See" Gender - And That's The Problem Wired, 2019

29 Where in the world do women still face legal barriers to own and administer assets?

30 Strengthening the effectiveness of Uganda's consumer protection framework: Mystery shopping assessment of credit cost disclosure

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As highlighted by MFI representatives, this is largely to cater for the lower levels of digital access and literacy amongst their customers; only 20% of MicroLoan Foundation's all-female customer base have access to smartphones. However, the high levels of interaction needed for this model to work limit its reach and restrict the number of women with access to credit.

That said, MFIs are one of the few types of lenders who have provided credit to low-income and rural women at a massive scale sustainably. Digital credit providers interested in expanding their women clientele could gain from the current MFI model's attention to detail as they develop digital products. For example, the typical Microloan Foundation customer is a sole trader whose credit needs change as she grows her business so lenders must "have the correct product profile that suits the client right across their life cycle". Old Mutual Zimbabwe characterise their female customers as usually borrowing "small amounts, with a focus on buying and selling" and as more likely than men to seek loans for specific expenses like school fees. This led the organisation to offer a range of products, each with a specific focus, such as access to technology, finance for school fees, agricultural inputs, or "microhousing". These specific-use loans are carefully tailored to customers' needs; for example, agricultural loans are built to match the agricultural cycle.

## **Demand side drivers** of the gender gap in digital credit

In addition to several supply side issues, it is argued that there are demand-side factors that contribute to the gender gap we see in credit.

Evidence drawn from 47 African countries suggests that women entrepreneurs are more likely to self-select out of the credit market because of low perceived creditworthiness<sup>33</sup>. In other words, women less often apply for loans because they are discouraged by their own perception that their applications would be denied. These are only a couple of several examples of legacy issues that limit the ability for women to be positively impacted by credit's many benefits.

Theoretically, digitization should bring with it the promise of significantly reducing the existence and impact of human biases (demand and supply sided) in the distribution, suitability and overall experience of credit. However, this does not mean that digital credit will eliminate gender bias in the credit industry. It also does not imply that digital credit has no unique challenges of its own in relation to gender disparity.

In developing economies, the gender gap in financial inclusion remains high at an average of  $9\%^{34}$ .

33 Africa's Gender Gap in Access to Finance for Women, IMF F&D 34 What Drives the Financial Inclusion Gender Gap for Young Women



Digital finance has played a crucial role in moving the needle for financial inclusion, but it seems to be limited in its ability to effectively close the gap. When it comes to digital credit, there are a few explanations for this. Social and cultural factors still influence levels of individual autonomy in financial decision making. Most of the women we spoke to lack full autonomy in their financial lives, with spouses or parents retaining control. Financial decisions made throughout the borrowing lifecycle; beginning with consideration, are often influenced or dictated by others. A representative from an MFI in Zimbabwe noted women often needed more engagement from lenders to even consider taking out a loan, as some aren't always accustomed to having the liberty to make such decisions on their own even when the need and benefit is not in contention.

The purported advantage of fintechs and expansion into digital products is higher access to and use of data to offer loans to wider audiences. As new models for scoring using new sources of data are built, there needs to be a deliberate effort to make sure that they are designed in a gender-sensitive way. In addition to this being the right thing to do, it also serves to enable them access underserved segments, which impact their bottom line. Further, this orientation may also reveal to them other areas for improvement in their scoring as far as rural populations, youth, among others.

Focus on Kenya, Nigeria and India

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### My father-in-law usually makes all the major financial decisions. Decisions related to savings, expenses are taken by him with the consultancy of my husband. I [make] financial decisions related to household expenses.

#### Anita - 38 year old female tailor - India



## Intervention areas



## Challenges and limitations

## of digital credit

#### SUMMARY

Digital credit can be good, both for customers and providers, when

- It cuts through formal credit access barriers faced by low-income customers; such as physical distance and discrimination based on socio-economic status
- Helps safequard from, or reduce the severity of income shocks and emergencies among low-income groups that otherwise have limited tools for resilience and risk mitigation
- Digitized operations allow for providers to make credit decisions and distribute loans at a much lower cost; in contrast to traditional lenders. This enables them to lend to new and often underserved market segments.
- Digital credit allows more low-income individuals to establish formal credit histories, which would have been otherwise difficult for them to do. This enables them to gain access to other value adding services beyond digital credit.

Digital credit can be bad, both for customers and providers, when

- The ease of access to the loan is far greater than ease of access to information about the loan's terms and conditions.
- Some providers indiscriminately give out loans to vulnerable first time borrowers as part of their debt assessment process, with little regard for outcomes for those that struggle or fail to repay.
- Digital generic consumer loans do not always match specific borrowing needs; measured by loan limits and use case matching.
- Automated repayment is an emerging mechanism; this takes away the option for people to default if they have to, which is a concern from a consumer protection mechanism.

Our qualitative interviews with end users of digital credit highlighted that the nature of people's incomes will usually determine people's experience throughout the borrowing lifecycle. Borrowers do not simply take out credit, generate income from their work, and repay their loans. Many among our target groups find themselves in complex webs of money inflows and outflows, and aren't always making decisions on their own as far as when and how money is spent. The profiles below exemplify the demographics, income sources, and financial behaviours of participants in our sample of end user interviewees.

#### The demographics, income sources, and financial behaviours of participants in our sample of end user interviewees

Interviewee Demographics Income source(s) Detail (anonymized) 38 year old rural Lacks autonomy on financial Anita Tailoring business, Indian husband's income decisions; father in law and from driving taxi husband make most decisions Tito 31 year old urban Self employed Invests in wife's clothes Nigerian male clothes trader, part design business, occasionally time housing agent borrows when household finances are depleted. Makes all household financial decisions. Rebecca 42 year old rural Farming Relies mostly on income from Kenyan female husband who is an insurance salesman, semi-autonomous in financial decision making Hadija 38 year old rural Casual laborer Primary breadwinner that Kenyan female augments income from 73 year old husband's pension, semi-autonomous in financial decision making Lives with his father, who Nish 26 year old rural Works at family Indian male owned tea cafe makes most financial decisions

The accessibility, convenience, and theoretically lower costs of digital credit should make it wellsuited to borrowers who fit the profiles above. However, as digital credit evolves, several risks have emerged that threaten both customer welfare and the ability of providers to expand further into the market.

01

**Risks of easy** access to loans without easy access to all the terms and conditions

Urban male, 28, Kenya

Because of the complexity of lowincome borrowers' cash flows and financial autonomy, it matters how loans are structured by providers. New entrants to the digital market offer ease of access and convenience as their main selling points - factors that often outweigh cost in endusers' decision-making process.

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### People are not aware, they do not read the terms and conditions. They ignore the terms because they urgently need money. Others do not care what T&C says... No, they are not able to calculate, people are ignorant because they are quick to get the loan.

This bias towards convenience over cost, combined with financial illiteracy and the opacity of providers' terms and conditions often leads to customers borrowing money without properly evaluating affordability or necessity of the loan at the time of borrowing. Our research also indicates that many customers are not averse to loan stacking and do not understand the implications of such behaviour, leading to even more borrowing without consideration or even knowledge about costs such as being blacklisted.

I have used so many apps at least once. Once the interest is high I delete it from my phone... I borrow [again] to pay off of another loan to avoid the fine

02

**Risks of** enticing and then excluding first-time borrowers

Female business owner, Nigeria

Ease of access for borrowers and lowered distribution costs for suppliers create a model under which low-value credit can be extended to large numbers of firsttime borrowers or customers who trial the product without a pertinent need, or out of curiosity.

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### I saw an advertisement on either Facebook or Instagram, I am not sure saying 'you can get an instant credit low interest loan with a click away', so I decided to try it out and I saw it worked and I was able to get the money I applied for on time....

Aggressive marketing of digital credit platforms creates challenges for some borrowers. Especially when it came to our respondents from India, many informed us that they first learned about these platforms after an agent representative made an in person visit to their home or place of work. The principal agent problem in finance describes a relationship between a principal and an agent who acts on the principal's behalf, where conflicts of interest emerge due to misaligned incentives and information asymmetry<sup>35</sup>. Essentially, agents may at times intentionally or unintentionally deviate from the intended ways by which potential users are to be first engaged about financial products. Agent incentives to onboard as many new borrowers as possible can be at odds with targets for a quality loan portfolio for the principal (credit provider). More importantly, the end user also suffers from lack of information transparency due to agent incentives that can be at odds with the end user's need to know critical details about loan products. Further, the agent can influence the end user's decision on whether or not, or at what point in time they actually need a digital loan. This exposes the borrower to risk of default when uptake decisions are made during hot states, where emotion stirred by salesmanship overrides rational evaluation of a product.



"

30,000 Naira

Easy access and effective outreach could be positive features of digital credit if the learning experience was managed effectively. However, the danger in this is that evidence suggests that firsttime borrowers have a much lower repayment rate - on time or late - than borrowers on their second or third loan. In fact, the chance of defaulting on a loan decreased with each of the first 10 loans taken by customers in Tanzania<sup>36</sup>. Low-value first-time loans have particularly low repayment rates, and it seems that digital providers might be extending low value loans to act as a screening process for riskier borrowers. While it's arguable that this is necessary to help the provider to control their risk of default exposure, it is a practice that is at the expense of new inexperienced borrowers who may not be fully cognizant of the effects of their trial and error behavior. There may therefore be cohorts of individuals that face long term exclusion from formal finance, almost as soon as they gain access to it.

36 Digital Credit Monitoring, Tanzania CGAP 2018

35 THE PRINCIPAL-AGENT PROBLEM IN FINANCE

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## I heard about LAPO microfinance loan accessible to people in my community whereby their agents visit people from house to house or shop to shop advising them to take loan and pay back in smaller amounts where you can get at least

### Female trader in Lagos, Nigeria



Low-income populations are uniquely exposed to high amounts of risk owing to location, their natural environment (climate change effects), gender (women), generation (the young or elderly), nature of livelihoods (informal, inconsistent, potentially dangerous) and health emergencies, among other factors. For many among them, digital credit is the only formal coping mechanism at their disposal, with digital insurance and savings platforms comparatively slower to scale. This suggests that even when ideal borrowing decisions are being made, there will be some level of unpredictability of outcomes among the poor based on risk dynamics that continue to be a determining factor.

Further, there are diverse ways by which people view the purpose of loan facilities, and derive value from them. At times, this is a reflection of the varieties of digital credit accessible to them. In Sub-Saharan Africa for example, several markets are dominated by nano-loans provided by bank and Telco partnerships. When we spoke to users of these loans in Kenya, we more often heard reflections about these loans' usefulness in smoothening household cash flows to help with shortfalls in meeting immediate expenses such as rent, school fees, or groceries.

In India, the landscape of dominant providers looks different, with more options for providers offering bulkier loans. Indian borrowers we spoke to more often spoke about their credit options as means to facilitate investments, starting up a future business, buying a motorbike, or for marriage. Use cases that are for liquidity smoothening or do not have clear linkages to increasing people's earning potential may cause higher default rates, though this is an area for further research.

Further, Indian participants recognised the risks of multi-borrowing and all reported sticking to a single credit provider. Most also reported being concerned about blacklisting and reported that either they or someone in their household could calculate the cost of their loans. In contrast, Nigerian and Kenyan participants who borrowed for more immediate economic relief appeared to have a less well-rounded understanding of - or adherence to - the terms and conditions of their loans. The table below illustrates examples of an apparent relationship between purposeful borrowing and better understanding of credit.

## Examples of this apparent relationship between purposeful borrowing and better understandings of credit

Participant Demographics	Purpose of Ioan	Cı pe
Urban male, India, 27	"I use this loan to buy a two wheeler."	"Ye rec fro "If me aff
Urban female, India, 38	"I took a loan because there was a marriage in my house."	"Ad rec of "If be
Urban male, Nigeria, 36	"Sometimes to feed, sometimes to pay for street security Even when shopping for groceries and I need extra cash."	"I h rec del to "I k loc the cre
Urban male, Kenya, 28	"For emergencies and when I do not have flow of cash within the month."	"[M hel pro aff "Pe an uro say igr

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#### redit erceptions

/es, according to me the cost of digital credit is easonable. I did analysis by myself and took help om the bank."

f I will not repay in time then the bank will not give ne a loan in the future and my civil score will be ffected."

According to me the costs of digital loans are asonable. My children did the comparison of cost <sup>i</sup> loan."

I do not pay in time then the penalty charge will e added . So, it is better to repay in time."

have used so many apps at least once to request, ceive and pay back . Once the interest is high I elete from my phone... I borrow to pay off of loan avoid fine"

know a lot of people who did not pay back their an due to constant fines, they just threw away heir sim card or destroyed the old sim so no digital redit staff can reach them."

Multi-borrowing] was beneficial because it would elp me when I needed more cash but would be roblematic when it comes to payment. I could not fford to pay for both at once."

People are not aware, they do not read the terms and conditions. They ignore the terms because they rgently need money. Others do not care what T&C ays. No, they are not able to calculate, people are prorant because they are quick to get the loan."

**Over**aggressive debt collection tactics

Lack of collateral exposes digital credit providers to comparatively higher risks of defaulted loans. Lenders employ different tactics to try to limit this risk exposure, with some taking seemingly desperate and inappropriate measures. An emerging point of discussion in digital credit markets is debt collection practices. There have been instances of digital credit providers, usually through third party debt collectors, applying aggressive tactics that transgress morally, socially and legally acceptable limits of engagement with borrowers. These practices can increasingly cause reputational damage to the digital credit category as a whole, despite potential value customers can gain from using it. Further, it causes undue stress on borrowers, which has undesired knock- on effects, as highlighted when we discuss the impact of stress on welfare outcomes for borrowers.

"Debt shaming" is becoming increasingly popular in markets we studied. In Kenya, there are reports of debt collectors contacting spouses, employers and even local priests in an attempt to induce public shame as a means to increase repayment<sup>37</sup>. At times, these tactics go beyond shaming and into harassment, where borrowers receive threats from providers claiming to share their location details with auctioneers, who would forcibly acquire and sell their possessions. These issues exist in India as well, perhaps to a more severe degree. There have been reports of highly inappropriate and at times extortionist practices, such as lenders accessing pictures from borrower's phone galleries and distorting them as a means to coerce borrowers into repaying<sup>38</sup>. In India, thousands of lending apps exist, which makes regulation more difficult as many of them find loopholes and work-arounds to operate outside the purview of regulators.

37 Kenyan borrowers shamed by debt collectors chasing Silicon Valley loans Made in China: How the instant loan app racket boomed in India

Focus on Kenya, Nigeria and India



Loan limits too small to meet needs and unlock opportunities On the second point, many interviewees emphasised the necessity of only borrowing the amount of money needed for a particular reason to avoid overindebtedness. Loan sizes are therefore strongly driven by purpose, but some respondents reported having to take out the maximum amount or borrow from multiple sources, notably for school fees, or entrepreneurial activities.

Loan amount requested should be given to applicants. I strongly feel the purpose of the loan is forfeited when the original amount is not given.

Female business owner, 31, Nigeria

The above sentiment illustrates that credit options typically do help people, but also that markets may not always be satisfying the needs of purpose-driven borrowers. It can be argued that if the loan limit does not align with the capital amount that the borrower needs, the individual should not take out that loan. What is however more likely to happen is that the borrower decides to max-out the credit option available, in the hope that they will be able to find additional funds from elsewhere. The challenge here is that in the event such additional funds do not become available soon after borrowing, the money borrowed may go towards unintended and less than ideal purposes. Multi-borrowing is also likely, exposing borrowers to having to pay interest multiple times for one borrowing need.

Several participants in our research had purchased solar home systems, phones, and furniture on credit, and seemed to hold the providers of this credit in high regard. They reported having had the terms of their loan clearly explained to them, and they were more aware of the risks of defaulting as they did not want to lose the benefits of their new assets. It seems that once this relationship is established, the customer is also in a better position to utilise other less specific credit products. For example, having repaid their solar systems, 55,000 M-Kopa customers have since attained a \$50-70 cash loan to support household needs and invest in their businesses<sup>39</sup>.

A representative from a solar unit asset financing company also highlighted that, somewhat counterintuitively, some of their poorest customers are at lowest risk of default. Customers who rely on their solar system as their only source of electricity are highly incentivised to keep making repayments, resulting in a 93% repayment rate for the solar system and 98% for secondary products<sup>40</sup>. These insights highlight how flexibility and the provision of valued assets contribute to a feasible credit model for even the lowest-income borrowers, and make the case for government or donor subsidies to help such customers get their foot in the door for access to purpose-driven financing<sup>41</sup>.

39 M-Kopa Impact Report 2019

41 What do low income customers want from asset finance? CGAP, 2020

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<sup>40</sup> The Solar Company Making a Profit on Poor Africans Bloomberg, 2015

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### Transparency and data sharing

#### REGULATORS

#### Better market monitoring and enforcement

While most jurisdictions have establishea standards and best practices for information disclosure on credit products, supervision and enforcement may be a challenge, and they may therefore need support.

#### Solve for information asymmetry

Consumers make better decisions for themselves when they can easily contrast available credit options. As more providers emerge, this could optimize competition.

#### Contextualizing data policies

Research and advocacy is required to set up regulatory regimes that create data sharing ecosystems that promote digital economies, while also preserving privacy and other ethical considerations.

#### Requiring submission of both positive and negative data on borrowers

Some regulators face difficulties in compelling providers to share both positive and negative data; as providers like some FinTechs don't hold deposits and therefore don't fall directly under the purview of regulators. In some cases, regulators bar providers that refuse to report positive borrowing behavior from accessing data from reference bureaus as a means to foster fairer data sharing.

# How can digital credit be made better?

#### CORE QUESTIONS

- What kinds of protection do digital >credit customers need, and why?
- What market level interventions can >be enacted to create impact for borrowers and preserve commercial interests for providers?

Focus on Kenya, Nigeria and India

There are opportunities for optimization as far as:

01. Information from providers to consumers The complexity, timing and comparability of information borrowers consume represent three dimensions that have far reaching implications on individual borrower welfare, and influencing market conditions.

#### 02. Data accessibility and portability

Providers need to be able to legally and ethically access and use data on borrowers to make better credit allocation decisions. There can be improvements in the process of sharing data from borrowers to providers, between providers and also other stakeholders that could provide data that can be used to better understand borrowers.

#### PRIVATE SECTOR AND INTERMEDIARIES

#### Empowerment through information at access points

The Google Playstore in particular is well positioned for this: the Android operating system accounted for 86% of mobile operating systems in Africa and 95% in India. In order for providers to avail their platforms on their repository, they could be required to abide by standards for the complexity, timing and comparability of information for loans offered.

#### Enabling data portability

If and where digital credit providers are required to share credit histories, institutions can provide a service to consumers where they facilitate the transfer of credit histories to providers that may offer loans that are cheaper and/or better suited to their specific needs.

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### Enhancing gender equality

#### PHILANTHROPY

Address prevalent structural barriers contributing to the gender gap The structural barriers of lack of access to phones and/or the internet results in women losing out on a tool that can enhance their agency and financial livelihood. Closing the gap in phone ownership and access to the internet would need to happen before or at the same time as other equality enhancing interventions for digital credit. This could involve the provision of discounted or free phones.

There exist significant gender related barriers in digital credit. These barriers are observed both in access to digital credit itself, as well as other factors at play once women have basic access to it. Many women lack basic assets that enable them to access digital platforms. There are also gender biases in digital credit allocation decisions that merit further interventions.

#### REGULATORS

Regulators could require providers to report the gender breakdown of their client composition and behaviors

This would ensure that providers collect and evaluate gendered data. This would elevate internal and external attention paid to persistent gaps that need to be addressed from market health and commercial perspectives.

#### PROVIDERS

#### Understand and address existing gender biases and their impact

Providers seem to be unaware of potential biases in digital credit. They intentionally avoid using gender variables, causing them to believe operational decisions do not result in gender biased outcomes. Portfolio health indicators such as approval and repayment rates should be more often broken down by gender; as this would more consistently reveal gender discrepancies that need amendment. Mystery shopping for digital financial services can also be carried out<sup>42</sup>; this can add specificity to the sources and causes of gender biases observed.

Risk management and data utilization

#### REGULATORS

Lenience for novice, low value borrowers The practice of giving out low value loans to low-income inexperienced borrowers with limited KYC effort can be regarded as an issue requiring regulatory intervention. Kenya for example set a minimum threshold of Ksh.1,000 (\$9) for negative credit information that can be submitted to CRBs by lenders<sup>43</sup>. This protects novice borrowers from exclusion as soon as they start engaging with formal financial products. It is however important to note that such regulations could cause undesired responses by providers, by becoming reluctant to provide any credit to riskier borrowers. In addition or instead, regulators could be less lenient with providers that consistently have high default rates, especially among novice borrowers.

#### Enable access to more, and better data

Providers can legitimately argue that their access to data on loan applicants is at times limited or non-existent, exposing them to higher risk and non-desirable responses as a result. Further, they may not always be clear on what data sharing practices are legal, causing hesitancy in seeking or sharing data. Government agencies can, through infrastructure and regulation clarity foster sharing of information on individuals and enterprises that is useful for credit allocation decisions. This can both reduce the risk of credit allocation as well as enable borrowers to utilize credit histories across providers.

42 Mystery Shopping for Digital Financial Services: A Toolkit

Focus on Kenya, Nigeria and India

Risk exposure is often cited as the primary driver of price. There seems to be resignation to a perpetual high level of risk in the digital credit industry, and perhaps a limited concerted effort to influence market dynamics that could reduce risk while sustaining the momentum of digital credit's inclusive nature. Key issues are:

- 01. Distribution of loans as a screening mechanism contributes to high levels of non-performing loans. This is also a key concern for novice borrowers borrowing small amounts, who face blacklisting.
- 02. Data for credit scoring is at times limited in access and depth in our focus countries. This is however changing due to the growth of digital economies and the emergence of alternative data. There will be opportunities to define more appropriate KYC methods.

#### PROVIDERS

#### Develop interventions to encourage repayment among first time borrowers

A customized effort to encourage repayment among first time borrowers can be a way to reduce the prevalence of first time loan defaults. Identification and acknowledgement of specific and addressable underlying factors that perpetuate their defaulting tendencies can form the basis for ideation and implementation of context relevant remedies.

#### Invest in wider use of alternative data

Financial data is very effective at predicting repayment behavior. Digital credit products have the additional ability to leverage other forms of data to improve their KYC protocols and reduce risk as a result. It is however unclear the extent to which alternative data is actually used by providers. Especially in the context of engaging low-income novice borrowers in developing economies, providers need to factor in other predictive measures to make better decisions that don't compromise on consumer welfare or expose themselves to undue risk.

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### Repayment and Debt collection

#### REGULATORS

#### Enable and allow for experimentation on flexible repayment products

Flexible repayment schedules may be ideal, but could be risky if not well executed. Regulators can play a role in experimentation in controlled environments, where the balance between impact and commercial interests can be identified.

#### Enhanced detection and responsiveness to illegal debt collection practices

Regulators need to be able to maintain consumer redress mechanisms to be able to hear about and respond to over-aggressive debt collection practices as they arise.

#### Regulating debt collection outsourcing arrangements

Debt collection is often outsourced by lenders. There can be new or enhanced enforcement of regulations on the contracts between providers. Alternatively or in addition, collectors themselves can be better regulated.

Repayment structures and debt collection processes influence the use of loan capital and often have long term implications on borrower welfare.

- 01. There are opportunities for further experimentation on the potential of flexible repayment schedules to increase repayment rates and increase productivity.
- 02. An increase of reports of over-aggressive debt collection tactics such as debt shaming can be explained by desperation and at times, fraudulent business. Practices by a few lenders can cause reputational damage and attract punitive regulatory responses for the industry.

#### RESEARCHERS

Further research and experimentation to understand the potential impact of risks of significant changes to repayment

There is some evidence that flexible repayment structures influence productivity and increase repayment. Further research and experimentation is however required to understand for which borrowing cases and in which contexts this may work better; as well as reveal potential risks to lenders and borrowers.

#### PROVIDERS

#### Establishment of self regulating associations

Lenders have and can regulate themselves. In Kenya, digital lenders have co-created an association establishing their own code of conduct that among other things, outlines standards for ethical treatment of defaulting customers44.

Leveraging positive dynamics in informal finance

#### PROVIDERS

Groups offer access to new cohorts of potential customers with reliable data on previous financial behaviors. Many of these groups already have an appetite for digital solutions as they grow in size and struggle with administrative burdens; therefore enabling the provision of digital loans may often be a mutually beneficial collaboration.

### Purpose driven lending

#### PROVIDERS

#### Investment in purpose driven product development

Some providers we spoke to alluded to strategic interests in moving towards tailored credit products, due to anticipation of higher repayment rates and the possibilities around providing assets on credit that could also be used as collateral.

44 Serial Debt Shamers Not Part of Us- Says Digital Lenders Association

In some cases, the digital credit industry may want to consider collaboration to leverage the positive dynamics involved in informal finance. Many lowincome consumers we spoke to have pre-existing experiences and preferences for financial solutions; with informal savings and loans groups particularly popular. The existence of high amounts of trust and relevance to pertinent needs implies that informal groups will continue to grow in popularity. We expect to see more overlap between these groups with formal finance; as they too embrace digital solutions to optimize.

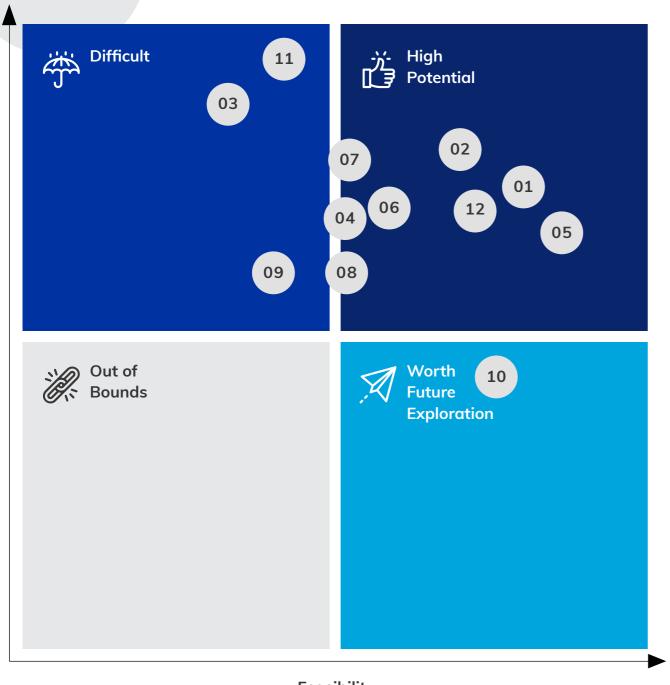
There is a need to diversify offerings from digital credit providers. Consumers complained about low credit limits; we heard that this led to loan stacking and likely the misappropriation of loan capital when limits are maxed out and borrowing needs are still not met. Further, when we look at the costs of generic consumer digital loans we can infer their regular use for entrepreneurship is not appropriate.

#### **RESEARCHERS** / INTERMEDIARIES

#### Identification of specific needs within ecosystems

Movement away from the provision of generic low value loans requires providers to make significant strategic shifts. In order to do this, lenders need feasible access to information that points them towards consumer needs within specified eco-systems and value chains. Pertinent needs will represent viable commercial opportunities.

### Impact and feasibility matrix



01	Solve for information asymmetry
02	Contextualizing data privacy policies
03	Addressing structural barriers contributing to the
04	Reducing gender bias in credit allocation decisio
05	Lenience for novice, low value borrowers
06	Advocate for wider use of alternative data
07	Enable providers access better data
08	Research and advocacy for flexible repayment s
09	Curbing illegal debt collection practices
10	Advocating for digital credit's amalgamation wit
11	Enabling development of purpose driven digital l
12	Enabling data portability
<u> </u>	

Feasibility

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## **Stakeholder mapping**

For the intervention themes listed above, the list below shows the fundamental stakeholders in the digital credit ecosystems in developing economies that would be required to make change possible.

#### DONORS

Actors in direct or indirect philanthropic interventions in optimizing the digital credit market for the poor

#### CONSUMER PROTECTION ADVOCATES

Government regulators and independent consumer protection advocates acting to develop and enforce consumer protection policies

#### PRIVATE SECTOR

Actors seeking to discover new opportunities, reduce risk and minimize harm to consumers

#### MARKET SUPPORT ENTITIES

Actors such as the FSD network in Africa, CGAP, AFI bringing together various stakeholders to address challenges and opportunities in digital credit

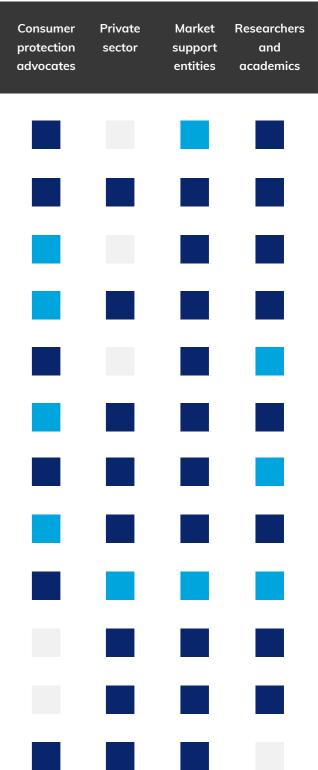
#### RESEARCHERS AND ACADEMICS

Actors seeking to discover precise truths to guide decisions and strategies for other stakeholders

Involvement by the above stakeholders would vary per intervention. The below key identifies the likely level of involvement:

	Critical Partial / Likely	L
	Interventions Theme	Donors
01	Solve for information asymmetry	
02	Contextualizing data privacy policies	
03	Addressing structural barriers contributing to the gender gap	
04	Reducing gender bias in credit allocation decisions	
05	Lenience for novice, low value borrowers	
06	Advocate for wider use of alternative data	
07	Enable providers access better data	
08	Research and advocacy for flexible repayment schedules	
09	Curbing illegal debt collection practices	
10	Advocating for digital credit's amalgamation with informal finance	
11	Enabling development of purpose driven digital lending products	
12	Enabling data portability	

Focus on Kenya, Nigeria and India



#### ow / No Involvement

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## Which interventions are more or less likely to happen naturally, or enacted by others?

 $\square$ Could the market If not, what kind of Could the market Intervention Approx. Intervention remedy itself? **BMGF** investment investment/ remedy itself? may be required? impact potential The Google Playstore has Advocacy with Google There is limited interest 01 Medium 04 already introduced policies to encourage action and at times capacity to Solve for Reducing in some jurisdictions. These in markets that lack look into gender parity for information gender bias in might spread. sufficient regulation. digital credit distribution asymmetry credit allocation and overall experience by decisions The Google Playstore has providers and regulators. Advocacy with Google There need to be compelling already introduced policies to encourage action arguments from individuals in some jurisdictions. These in markets that lack and institutions that sufficient regulation. might spread. understand the priorities and language of providers. There will be multiple Advocacy with market Low 02 stakeholders seeking to support entities to align Contextualizing Increased leniency in 05 influence data privacy on priority ideals that data privacy negative reporting could be legislation. Digital credit foster optimised data Lenience for policies unpopular in some markets as an industry will need a sharing and privacy novice, low necessitating advocacy environments. voice. value borrowers and provision of compelling evidence. The gender gap in digital Investment in High 03 programmes that finance is widening, and Addressing very likely won't close by enable women's access structural Behavioral interventions 06 itself. to digital finance. barriers would be required to figure Advocate for contributing to out how consumers can wider use of the gender gap contribute to creating alternative data a better data sharing environment.

	If not, what kind of BMGF investment may be required?	Approx. investment/ impact potential
ng s	Working with market enablers and researchers to articulate the issues, and provide a path for sustained changes in practice.	Medium
e s, g	Enabling market support agencies to work with regulators to push legislative agenda and figure out precise minimum thresholds for negative reporting.	High
2	Advocacy to influence data privacy policies that are better contextualized for developing economies and support the digital credit ecosystem.	Medium

Intervention	Could the market remedy itself?	If not, what kind of BMGF investment may be required?	Approx. investment/ impact potential	Intervention	Could the market remedy itself?
<b>07</b> Enable providers access better data	If other market interventions succeed, lenders may be compelled to invest in alternative data scoring if and when they have to compete on price.	Enable the creation of infrastructure and influence policy that avails quality and affordable data sources.	Low	<b>10</b> Advocating for digital credit's amalgamation with informal finance	Some jurisdictions h hundreds of provide at times operating f outside the country. Permanent solution difficult to envisage
	Changes to data privacy legislation among other interventions could directly enable this.				Some jurisdictions h hundreds of provide at times operating f outside the country. Permanent solution
<b>08</b> Research and advocacy for flexible repayment schedules	The building and dissemination of evidence of the potential of this change is unlikely to naturally occur.	Investment in research and experimentation directly or through market support entities.	High	<b>11</b> Enabling development of purpose driven digital lending	difficult to envisage. Generic digital cons loans require limited operational and ove expenses. Fundame changes to this may
<b>09</b> Curbing illegal debt collection practices	Some markets are introducing self-regulation, and over-aggressive collection practices gather negative publicity that inflicts reputational damage.	Constant support to enable regulators monitor and clamp down on transgressors of regulations.	Medium	products <b>12</b> Enabling data portability	be difficult to sell. There are already institutions intereste solving this problem would however req support in enabling

If not, what kind of BMGF investment may be required?	Approx. investment/ impact potential
Supporting the ability of market enablers to create required linkages.	Medium
Investment in providers that drive purpose driven lending; to 1) address critical needs for the poor and 2) stimulate growth of the sub-sector.	High
Investment into institutions seeking to increase data portability. Investment in data sharing infrastructure and policy advocacy.	Medium

policies and infrastructure.



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