

# Alternative Data and Market Dynamics in MSE Lending in Kenya

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*Market Context Report*

MARCH 2024

## About FinRegLab

FinRegLab is a nonprofit, nonpartisan innovation center that tests new technologies and data to inform public policy and drive the financial sector toward a responsible and inclusive financial marketplace. With our research insights, we facilitate discourse across the financial ecosystem to inform public policy and market practices.

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# 1. EXECUTIVE SUMMARY

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This report identifies opportunities to transform access to affordable and suitable credit for women-owned micro and small enterprises (MSEs) in Kenya. Women-owned MSEs are critical to the growth of the Kenyan economy, yet often struggle to access credit for expansion because data about their past borrowing and/or that provides insights into their cash-flows cannot be easily accessed by formal lenders. In 2023, FinRegLab launched an investigation into how conventional<sup>1</sup> and non-conventional<sup>2</sup> data sources could be used to address this problem. Leveraging our experience in the U.S. context, we engaged in extensive bi-lateral interviews with Kenyan stakeholders and organized two working groups of leaders from industry, government, academia, and international nonprofit organizations in Kenya. This report synthesizes stakeholders' input and perspectives about prioritization as well as independent analysis conducted by FinRegLab.

We find that credit access for women-owned MSEs can be substantially expanded through a series of focused refinements to the financial services data ecosystem, specifically, aligning regulations governing the sharing of credit information, accessing incremental data sources and clarifying data protection guidance. In this summary, we briefly present the data ecosystem context before analyzing these potential refinements. Recognizing the complex challenges associated with executing multiple incremental improvements, we discuss the motivation for an initiative that can deliver transformative access to credit and the importance of empirical research to assess the predictive value, scope, and economics of potential data sources.

Credit data and risk assessment systems generally follow a similar and logical pattern throughout the world. To access credit, a lender's credit risk assessment process implicitly or explicitly requires that the following five criteria are met in order for the borrower to be eligible:

1. The borrower has previously borrowed from a lender who reports accurate and timely data to a credit reference bureau (CRB).
2. The CRB has validated the information and established a credit file for the borrower to hold the data.
3. There is sufficient recent data in the file to calculate a credit score, which is an analytic synthesis of thousands of pieces of credit management information in the borrower's file.
4. The borrower's current score is high enough to classify the borrower as likely to repay the loan.
5. The borrower can satisfy all supplementary identity-related or financial criteria.

If the borrower does not have a credit file and score at the CRB, the lender may choose to use only the supplementary data to assess the borrower for credit risk. This non-conventional data is not contained in the borrower's CRB file, and often requires consumer permission to access. However, the absence of a credit file and score is often interpreted as higher risk, which may prompt the lender to reject the application, to lower the size of the loan, or to increase the pricing.

Many MSEs, especially microenterprise owners, fail one or more of the five criteria, making it extremely difficult to access affordable credit to grow their operations. This is particularly true among women-owned enterprises in Kenya, a large portion of which are microenterprises that often function in the unlicensed or informal sector with loan performance data that are rarely or never reported to the CRBs. Consequently, these business owners may not have a credit file or score at the CRB or may have a score based only on a very small amount of loan data, making it difficult to access credit from formal lenders. This credit access challenge becomes even greater for business owners who have chosen or been compelled to operate their businesses without using even smaller loans for day-to-day operations (which we refer to as 'cash-only' businesses). These cash-only businesses may still use a mobile or digital wallet to hold and manage some or all of their cash, but they are essentially invisible to the conventional credit and risk assessment ecosystem. This is a segment that is also more likely to be women-owned.

In total, approximately 3.5-4 million women-owned enterprises are affected by these credit access challenges. Consequently, these MSEs are typically only able to access and afford enough credit to meet their daily operational liquidity management needs. While this is helpful for the enterprise, it naturally inhibits meaningful growth that could fundamentally enhance the economic livelihoods of many Kenyan families. MSEs already contribute about one quarter of Kenya's gross domestic product, so increasing credit access and growth among the 30 percent of licensed enterprises and 60 percent of unlicensed enterprises that are solely owned by women could have substantial impacts on the broader economy.

The purpose of this study is to identify potential solutions from a data and regulatory perspective that address these credit access challenges for women-owned MSEs. While our core focus is to identify data solutions to the challenges for women-owned MSEs, most remediation initiatives will benefit the entire MSE segment.

Our study considers the lending ecosystem on three dimensions:

- » How does the conventional credit data ecosystem (data currently reported and stored within the CRB repositories) inhibit access to credit for women-owned MSEs?
- » What are the benefits and challenges of incorporating non-conventional (data currently not reported to a CRB and typically requiring consumer permission to access) data sources in the mainstream credit risk underwriting process?
- » Finally, what are the policy and regulatory infrastructures regarding data privacy and consumer permission for incorporating these proposed data solutions?

*Note that the goal of this report is to describe the landscape that women-owned MSEs operate within regarding credit accessibility. Additional research could specifically identify which non-conventional data deliver the greatest impact to credit accessibility for women-owned MSEs, and the policy/regulatory implications of engaging these data sources in the credit risk assessment ecosystem.*

## Conventional Data Findings

The principal concerns for conventional data, as shared by stakeholders, are firstly, adherence to and enforcement of the credit information sharing framework and secondly, data accuracy. Data accuracy concerns fall within the purview of CIS Kenya's quality remediation initiatives and will not be actively discussed here other than to affirm the essential contribution of that initiative. Our study has focused on the regulatory reporting concern. For a variety of reasons, certain lenders are not reporting some or all consumer loan information. As a result, a borrower's full credit management footprint is not fully visible through their CRB credit report. As a borrower takes out more loans from lenders that do not comprehensively report, the quality of their risk assessment deteriorates. Furthermore, as more borrowers engage with these particular lenders, the risk assessment accuracy of the overall ecosystem is deteriorating. The combined effects of these two phenomena are resulting in increasing deterioration in credit risk assessment throughout the financial service ecosystem.

Resolving regulatory reporting inconsistency and motivating lending institutions to comply with reporting guidelines universally would move the conventional data ecosystem toward greater data visibility. With greater visibility, credit risk assessment accuracy improves, resulting in reduced credit-related losses, opportunities for increased originations and more nuanced strategies such as risk-based pricing.

From the demand-side, women-owned MSEs that typically borrow from these non-reporting lenders benefit from enhanced visibility within the conventional credit data system. Their credit risk assessment improves given enhanced visibility and consequently, the potential for greater access to fairly priced credit. However, resolving regulatory reporting issues has minimal value for cash-only businesses, given these business owners are entirely invisible to the conventional credit data system.

## Non-conventional Data Findings

Non-conventional data sources can offer substantial insight into the borrowing and affordability behaviors of women-owned MSEs, importantly including those business owners who are currently wholly invisible within the conventional credit data system.

In addition to expanding the number of borrowers that become visible within the lending ecosystem, non-conventional data sources also contribute to a 360-degree view of enterprise risk. Stakeholders indicate that sources such as mobile wallet transactions and supply chain data can provide a deeper and more current view of borrower behavior that enhances credit risk assessment by providing insight into affordability and repayment ability. Integrating these data allows lenders to develop combined credit and cash-flow scoring models that are known to deliver superior predictive insight.<sup>3</sup> Digitally accessing non-conventional data sources is, in reality, the greater challenge for incorporating these data within the credit risk assessment process. Often these data are privately held, maintained in data silos, are not in a digital format, or require consumer permission/consent to access. For instance, access to the most promising non-conventional data source, M-PESA mobile wallet data, is restricted due to cost and other dynamics and currently there is no universal access mechanism. As stakeholders debate various means of overcoming these challenges as discussed below, a more detailed analysis of individual data sources could help to evaluate and prioritize potential initiatives.

Solving for these orchestration challenges could substantially address inequitable credit access for partially visible women-owned MSEs and provide a trusted on-ramp for invisible, cash-only, business owners. However, it is important to note that there is no 'one size fits all' data source that

solves the issue. Thus, extracting the benefit from non-conventional data sources for credit risk assessment requires a recognition that this is a 'long-tail' problem, where many, diverse sources each make relatively small contributions to the solution in order to address the overall problem. *In credit risk assessment for conventionally credit excluded populations, a non-conventional data solution is in reality a hierarchy of sources, each delivering sufficient predictive insight across enough of the constituent population at acceptable economics.*

## Policy & Regulatory Infrastructure

The overarching concern for policy and regulatory infrastructure is to provide further guidance to lenders on how to implement the Data Protection Act, 2019 (DPA), which has major implications for how all lenders operate when working with the personal data of MSE owners, particularly when they want to access and rely upon non-conventional data sources for underwriting. This guidance should include the process for gaining consent for use of customer data, the processing of requests by customers to access their data for purposes of providing it to a lender, and timelines for data protection impact assessments. Descriptions of how regulators in other jurisdictions have provided guidance, tools, and examples to help address the implementation and compliance concerns are offered in a later chapter.

## Achieving Transformative Access to Credit for Women-owned MSEs

The mainstream financial services sector in Kenya is sophisticated and innovative. It is simultaneously complex and constrained, as reflected in the concerns and recommendations identified in the discussion on conventional data reporting for mainstream lending. The urgency to resolve the conventional data issues will likely continually drive the ecosystem to prioritize its resources toward this work given the potential to deliver substantial impact. This prioritization, however, leaves minimal resources available to capture the financial inclusion benefits of incorporating non-conventional data solutions within the data ecosystem, which is particularly critical for women-owned MSEs.

Notwithstanding these resource constraints, there is an organic movement toward engaging and adopting non-conventional data solutions throughout the industry, especially by the FinTech and Digital Credit Provider segments. These stakeholders have deeply invested in data science and orchestration technologies as they explore how to exploit risk insights from a diverse range of non-conventional data sources.

However, given that there is no single, readily available data source that solves for the entire MSE segment, FinRegLab is aligned with the perspective that solving the credit access need for women-owned MSEs should take the form of a non-conventional data platform comprising of multiple aggregated data sources that have been qualified for the required risk insight and production stability for these MSEs. This solution could provide an effective on-ramp for business owners who are currently invisible to the conventional data ecosystem and when coupled with the conventional data CRB ecosystem for the partially visible business owner, can deliver a 360-degree view of the business owner's credit propensity and affordability. Such a solution has the potential to truly deliver transformative access to credit for women-owned MSEs and the entire MSE sector within the Kenyan economy.

## Future Research Direction

At the moment, however, there is no broad-based and publicly accessible understanding of the predictive value of individual non-conventional data sources in Kenya. Furthermore, no universal access mechanisms exist for these data sources. We recommend an analysis that empirically studies multiple data sources' value and integration needs to present an objective assessment of which sources can add the greatest value to the overall ecosystem of credit underwriting for MSEs. We recommend a three-part analysis to consider the following:

» **Credit Risk Assessment Contribution:**

How much predictive risk insight does a particular data source offer?

» **Production Robustness:**

Can these data be readily scaled whilst satisfying Kenyan regulatory criteria for credit risk assessment data?

» **Integration Economics:**

Can the data be cost-effectively integrated into the assessment process?

Current market dynamics appear to have opened a window of opportunity to develop transformative solutions for women-owned MSEs and MSEs in general. Combining the most promising sources of non-conventional data with conventional reports and scores has the potential to provide a 360-degree view to assess both affordability and applicants' propensity to repay. Given the capacity of thriving women-owned MSEs to drive economic growth, improving risk assessment and credit access for MSE expansion has the potential to create a sea change in the broader Kenyan economy.

## 2. INTRODUCTION

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In 2023, FinRegLab launched an initiative to investigate how access to credit can be expanded for women-owned MSEs in Kenya using conventional and non-conventional data sources. Women disproportionately own microenterprises, consequently the majority of credit access concerns are primarily experienced by these women.<sup>4</sup> The initiative leverages FinRegLab's experience in engaging market stakeholders, nonprofits, academics, and regulators in dialogue and empirical evaluation of the use of non-conventional data for consumer and small business credit access in the United States. More specifically, it explores the challenges women-owned MSEs face in accessing affordable credit needed to both operate and grow their businesses, by considering issues related to data sourcing, privacy, and regulatory concerns.

FinRegLab's research approach is designed to inform market practices and public policy to ensure the safe and beneficial use of data in financial services. It also provides a venue for stakeholders to engage in discussions and research that inform the creation of more inclusive credit systems, focusing on Kenyan women-owned MSEs. FinRegLab's approach consists of three components that build upon each other: market context research, empirical research, and policy research.

This report presents the culmination of initial market context research conducted in 2023. It is based on a literature review, bi-lateral interviews with stakeholders, and the formation of two working groups of stakeholders across industry, government, academia, and international non-profit organizations. Each working group engaged in a series of discussions about the credit access challenges for MSEs, possible solutions and the associated implications of various policy and risk management approaches occurring as a result of these solutions. The report synthesizes the views of these stakeholders and their prioritized perspectives.

**First,** we build on the wealth of research previously conducted on micro, small, and medium enterprises (MSMEs), credit information sharing, mobile money, digital lending, and consumer protection by government agencies, academic researchers, research organizations, and other actors in Kenya. Most notably, we have consulted the findings of research conducted by the Central Bank of Kenya (CBK), the Kenya National Bureaus of Statistics (KNBS), Small Firm Diaries by Financial Sector Deepening Kenya (FSD Kenya) with the Financial Access Initiative research center of New York University,<sup>5</sup> CGAP,<sup>6</sup> Innovations for Poverty Action and MicroSave Consulting.<sup>7</sup> This specific study considers the wider credit ecosystem to identify challenges around credit underwriting and reporting and identifies responsible ways that non-conventional data may be used to expand financial inclusion for women-owned MSEs in Kenya. This study comes at a time when current market dynamics, as described extensively in this report, provides an opportunity to start fully leveraging non-conventional data to support greater credit access.

**Second,** FinRegLab held working group meetings with stakeholders across the financial sector and the credit information sharing ecosystem. The working groups included representatives from Tier 1 banks, microfinance banks, microfinance institutions, digital lenders, Kenyan credit bureaus (TransUnion, Metropol, Creditinfo), development agencies, nonprofit organizations, academia, technology companies and government. A full list of participating stakeholders can be found in [Appendix B](#). The working groups were designed to provide an ongoing venue for participants to share and learn through facilitated discussions about how market practices, the credit ecosystem, and public policies affect credit access for MSEs and woman-owned businesses.

The working groups also facilitated nuanced conversations about the benefits and risks of new data and technology in credit underwriting and the implications of various public policies and risk management and oversight approaches that regulators and industry stakeholders might take.

Two formal working groups were launched in March 2023, which FinRegLab facilitated from May to August 2023:

- » **Working Group on MSE-Facing Issues in Accessing Credit:** With sessions on Challenges to MSEs' Credit Access, Potential Solutions for Existing Challenges in MSEs Accessing Credit, and Consumer Protections Risks in MSEs Accessing Credit.
- » **Working Group on Non-conventional Data and Market Dynamics in Credit Underwriting:** With sessions on the landscape of non-conventional data in lending and evaluation of the regulatory and legal frameworks to identify gaps and potential changes.

Through these sessions, FinRegLab facilitated discussions with stakeholders to identify existing challenges and develop alignment on market and policy priorities and potential solutions. As such, FinRegLab created a set of prioritized solutions that align with the views and perspectives of the collective Kenyan ecosystem, which we then use to propose a path forward, i.e., empirical work.

**Third,** we have conducted numerous bilateral interviews with a range of stakeholders across the ecosystem in Kenya. These interviews contributed to our understanding and have validated our findings and recommendations.

**Lastly,** in June and July 2023, FinRegLab conducted interviews with micro and small business owners in Nairobi to complement our research by directly speaking and engaging with borrowers and women entrepreneurs. The interviews deepened our understanding of the financial needs and challenges for these businesses. Several enterprises will be featured throughout the report.

The structure of the report is as follows:

- » **Chapter 3** demonstrates the important role MSEs, especially women-owned enterprises, play in creating employment and driving economic growth, and the challenges they face as they attempt to access credit. These challenges drive many women-owned MSEs to focus their credit use on short-term options that may facilitate day-to-day operations but effectively create a ceiling because they do not provide capacity to stabilize and grow their businesses over time. Given this critical role in the economy, it is important to improve MSEs' access to safe and affordable credit.
- » **Chapter 4** maps in more detail the differences among different lenders as to the types of loans they provide, the pricing and amount of such loans and the data they require to evaluate creditworthiness. It also provides a framework for the potential types of data that can help to provide a 360-degree assessment of MSEs' capacity *and* propensity to manage debt, which could in turn support access to credit to support MSE business growth and therefore Kenyan economic health.

- » **Chapter 5** analyzes and makes recommendations with regard to the credit access challenges associated with conventional data, principally associated with reporting cadence and consistency. A meaningful portion of consumer and business lenders do not report loan data to the CRB. As a result credit files have become increasingly less accurate in terms of borrower repayment representation that in turn contributes to a deterioration in credit risk assessment quality.
- » **Chapter 6** considers non-conventional data sources and their use within a loan origination process. The chapter examines the data and technology needs for accessing and integrating the data, concluding with recommendations for which data sources should be evaluated for inclusion in the underwriting loan origination process.
- » **Chapter 7** presents the Data Protection Act, 2019 (DPA) and the need to provide further guidance to lenders on how to implement the DPA. The discussion includes relevant descriptions of how regulators in other jurisdictions have provided guidance, tools, and examples to help facilitate implementation and compliance.
- » **Chapter 8** looks beyond the incremental steps discussed in previous chapters to consider what it would take to deliver transformative access to credit for women-owned MSEs. As context for this discussion, we briefly review a study of introducing a generic risk credit score, VantageScore, to compete against the FICO generic risk credit score in the United States in 2007. The review motivates and argues for a level of disruption to the incumbent conventional data industry in order to establish the data platforms necessary to resolve credit access challenges.
- » **Chapter 9** summarizes and concludes this report.

Lastly, **Appendix A** describes the general processes for accessing credit. **Appendix B** lists the stakeholders that participated in FinRegLab's working group sessions. **Appendix C** discusses the topic of formalization of micro and small enterprises and associated challenges and considerations, **Appendix D** reviews the lender landscape in more detail and **Appendix E** reviews the regulatory landscape relevant to access to credit for MSEs.

## 3. WOMEN-OWNED MSEs DRIVE GROWTH BUT FACE CREDIT CHALLENGES IN KENYA

Micro and small enterprises are essential in creating employment and driving economic growth in Kenya. This chapter explores the impacts on MSEs, especially women-owned MSEs, from a diverse set of factors beginning with the impact of Kenyan financial inclusion initiatives, MSE business operating characteristics and credit accessible products and channels. To corroborate and enrich these perspectives, we include first-hand credit experiences from a group of MSEs.

### 3.1 The Impact of Financial Inclusion and Financial Health Initiatives in Kenya

Kenya has made remarkable progress in increasing financial inclusion as measured by financial account ownership over the last decade,<sup>8</sup> much of which is reflected in the 2021 FinAccess Household Survey.<sup>9</sup> In 2006—one year before M-PESA was launched—only 27 percent of Kenyans had a financial account.<sup>10</sup> Now, that number sits around 83 percent. However disparities still exist based on wealth, gender, education status, and other markers.<sup>11</sup> The Kenya National Bureau of Statistics (KNBS) directly attributes increased financial inclusion to financial innovations such as mobile banking and other digital technologies making money access easier.<sup>12</sup>

Despite significant progress, certain populations are lagging.<sup>13</sup> For example, 12.4 percent of women are financially excluded compared to 10.8 percent of men, resulting in fewer women with overall access to formal financial products and services.<sup>14</sup> Kenyans without formal education have the highest rates of financial exclusion (23.4 percent versus 1.2 percent for those with tertiary education).<sup>15</sup> Finally, rural Kenyans are more than twice as likely to be financially excluded (14.7 percent) than their peers living in urban areas (6.2 percent).<sup>16</sup>

Although the share of Kenya's population that is financially included has risen to 83 percent, there has been a substantial decline in the share of financially healthy Kenyans since 2016. Financial health is measured through a composite index derived from ability to achieve three core outcomes that finance can enable; ability to manage day-to-day needs; ability to cope with shocks/risks; and ability to invest in future goals.<sup>17</sup> The 2021 FinAccess Survey indicated that financially healthy adults made up 17.1 percent of the population, compared to 22 percent in 2019 and 39 percent in 2016. Only 14.7 percent of the women adult population, as compared to 18.6 percent for men, reported to be financially healthy.<sup>18</sup> The main drivers of this deterioration in financial health were Kenyans' increasing inability to cope with shocks and challenges in managing day-to-day needs. While data directly related to how these dynamics affect women-owned MSEs is sparse, the greater impact on women due to financial inclusion initiatives suggests that women-owned MSEs are similarly impacted.

## 3.2 Women-owned MSEs Are Critical for Growth

In this section we will narrow our focus to MSEs and specifically women-owned MSEs.

### 3.2.1 MSE Definition and Characteristics

To facilitate this discussion, relevant terminology and definitions should be aligned. MSEs are defined by size metrics such as employees, revenue, and capital, but are also often categorized as *licensed vs. unlicensed* or *formal vs. informal*. For general understanding, *licensed* and *formal* terms typically denote tax-paying firms including small to medium enterprises and a minority of micro-enterprises, while *unlicensed* and *informal* terms denote non-tax paying firms that are all micro-enterprises. For the purposes of this study, the terms 'unlicensed' and 'informal' are understood as essentially synonymous. The KNBS defines the *informal* sector as "all small-scale activities that are usually semi-organized, unregulated, use low and simple technologies and employ few persons."<sup>19</sup> As summarized in Table 1, Kenya's Micro and Small Enterprises Act (MSEA Act 2012) defines micro and small enterprises by their annual turnover, number of employees, or total investment.<sup>20</sup>

**TABLE 1 DEFINITION OF MSEs IN KENYA**

MSE TYPE	EMPLOYEES	ANNUAL TURNOVER (IN KSH)	CAPITAL EMPLOYED (IN KSH)	
			MANUFACTURING	AGRICULTURE AND SERVICE
Micro	0-9	< 500,000	< 10 million	< 5 million
Small	10-49	500,000 < 5 million	10 < 50 million	5 < 20 million

**Source:** Micro and Small Enterprises Act (2012)

The 2016 KNBS Micro, Small and Medium Enterprises (MSME) Survey,<sup>21</sup> the last comprehensive MSME survey conducted, estimated that there were 7.4 million MSMEs in Kenya, of which 1.56 million were licensed and 5.85 million were unlicensed and operating informally.<sup>22</sup> Most (about 90 percent) of the licensed enterprises were categorized as microenterprises, 7.1 percent as small enterprises, and 0.7 percent as medium. Unlicensed enterprises, on the other hand, were all categorized as microenterprises.

*In terms of business owner gender, 32.2 percent of licensed enterprises and 60.7 percent of unlicensed enterprises were solely owned by women, which amounts to approximately 4 million women-owned enterprises.*<sup>23</sup>

### 3.2.2 MSEs are A Major Driver of Kenya's Economy

The 2016 MSME survey and the 2023 Small Firm Diaries Kenya study<sup>24</sup> indicate that MSEs are often created out of necessity and remain small throughout their existence. Low-income groups engage in entrepreneurship because they cannot find a job or need to supplement low-wage employment. Green grocers, informal coffee farm owners selling beans to a bigger retailer, or a side-of-the-road children's clothing retailer are examples of informal MSEs.

MSEs are crucial to employment creation and economic growth in Kenya, with MSEs employing 14.9 million persons<sup>25</sup> (almost 50% of the Kenyan adult population) and contributing an estimated 24 percent of Kenya's gross domestic product (GDP).<sup>26</sup> The contribution of unlicensed enterprises, which are predominantly women-owned microenterprises operating informally, lags behind licensed micro

and small enterprises.<sup>27</sup> The KNBS survey estimates that the contribution of unlicensed/informal enterprises to GDP is roughly a quarter of the contribution of licensed micro and small enterprises.<sup>28</sup>

By any measure, micro and small enterprises, typically unlicensed or informal and largely women-owned, make a substantial contribution to the Kenyan economy.

### 3.3 MSEs, Particularly Unlicensed/Informal Enterprises, Face Several Challenges to Stay Afloat

Despite their critical role, these informal MSEs face a number of challenges:

- » **Smaller (micro) enterprises tend to be less viable than larger enterprises.** From the 2016 MSME survey, women-owned microenterprises are more likely to fail within the first five years of operation. Contributing to their failure is the fact that given their informal/unlicensed status, these women-owned enterprises often face considerable barriers to accessing credit, such as a lack of collateral.<sup>29</sup> Consequently they may be unable to obtain funding to support transactional liquidity financing needs or more substantial growth/investment funding.
- » **Owners of unlicensed enterprises have lower levels of educational attainment,** with 71.1 percent reporting having no education or primary education as their highest educational attainment compared with 7.8 and 1.7 percent for licensed micro and small enterprises respectively.<sup>30</sup>
- » **Microenterprises are more likely to lack (digital) financial documentation** (e.g., records, financial performance, cash-flows), which is common for other enterprises. The 2016 MSME Survey indicates that 67.2 percent of microenterprises kept records, while 94 percent of small enterprises kept records. The use of cash also remains dominant, with 71 percent of firms reporting the use of cash boxes for 25 percent or more of their transaction value.
- » **Unlicensed MSEs can be unstable because they lack a permanent location.** In part, this is because they operate in undesignated areas and are subject to disruptions such as displacement by county or national government authorities. Lack of stable access to infrastructure and worksites impacts access to customers, licenses, and ultimately, access to credit. The 2020 Kenya MSE Policy considers the lack of decent and affordable infrastructure a persistent challenge that impedes the development of the MSE sector.<sup>31</sup>

These operating characteristics are clear barriers to business stability, leadership maturity, and financial growth. They create implicit operational fragility that creates higher financial risk and can tend to foster a day-to-day survival focus rather than a growth orientation.

### 3.4 What Types of Credit Are Available to MSEs?

Enterprises can turn to various types of credit providers when looking for financing.<sup>32</sup> Credit providers include informal (e.g., chama savings groups) and formal credit providers, ranging from banks to digital credit providers. Kenyans have long relied on unregulated informal credit. These lending methods show no signs of disappearing; instead, they have become complementary to the formal lending system.

A wide range of loan products are available to business owners. Following traditional underwriting practices, the actual loan that the MSE owner qualifies for is a function of a credit risk assessment process that considers the individual business owner's creditworthiness as well as the business risk dynamics.

### 3.4.1 Traditional or Standard Loans

Traditional loans are typically offered through regulated banks, such as NCBA and KCB, using brick and mortar or digital channels. Credit risk assessment is customized for business lending. The process can include the use of a conventional credit score and consumer credit file, business performance data, depth of relationship with the bank, capacity to collateralize or cosign for the loan. As loan value increases, the borrower must provide increased evidence of their capacity and capability to repay. Pricing and loan terms are principally based on losses associated with the possibility of loan default and the lending institutions' operating infrastructure costs needed to support loan management. Loans offered by lenders with higher operating costs are logically also priced higher. Finally, higher value loans are more likely to be offered by more mature lending institutions given their ability to fund and manage more complex, higher risk products.

### 3.4.2 Digital Loans

In Kenya, a large proportion of loans are digital in nature. The digital credit market is hugely popular, over 6 million Kenyans have borrowed at least one digital loan in the last decade,<sup>33</sup> and between 2016 and 2018, 86 percent of the loans taken by Kenyans were digital in nature.<sup>34</sup> Two main commercial banks have partnered with Safaricom to leverage the M-PESA mobile money platform to offer digital loan products: NCBA with M-Shwari, and KCB with KCB M-PESA.

Other banks and digital credit providers also offer digital loans, such as the fintech Tala and microfinance bank Branch. Lenders, such as Tala and Branch, often establish deep expertise in data science in order to analyze and integrate non-conventional data in order to create risk predictive insights. Credit risk assessment processes consider conventional data and scores along with digitally accessible information through M-PESA transactions by obtaining consumer consent to access and review their wallet transactions, phone usage, SMS logs, contact lists, etc. Lending is done mostly at the individual level instead of the business level, and loans are typically smaller, more expensive, and shorter term than traditional loans. Origination times are often faster given the heavy reliance on digital information sources and automation.

#### 3.4.2.1 The Growth of Digital Credit

There has been a tremendous impact to credit access through mobile credit providers, fintechs, and other such companies' growing market share over the last 8 years. The dramatic shift away from traditional loans to mobile/digital loans is clearly observed in CRB data.<sup>35</sup> The number of traditional loans per capita issued by banks and MFIs decreased by 43 percent between 2016 and 2021, whereas the number of mobile loans per capita increased by more than 300 percent. Similarly, the value of traditional loans per capita decreased by 19 percent whereas the value of mobile loans per capita increased by roughly 660 percent.

Clearly the growth of digital credit has value to MSEs given its funding immediacy capacity. However, as we shall discuss in detail later in this report, the lack of consistent reporting by these lenders also powerfully undermines the borrower's capacity to establish a qualified credit risk profile that would allow them to borrow at higher levels with improved pricing.

While the government adopted substantial new laws and took other actions to regulate this sector in 2020 and 2021, implementation is still underway and concerns remain that this less regulated lending is causing higher than expected losses. In the words of Susan Mang'eni, PS State Department for MSMEs development, "digital credit apps have very low barriers to initial entry, rely on return and repayment data to assess creditworthiness. These providers lend to many, resulting in a large number of defaulters."<sup>36</sup>

**Box 1** describes the development of digital credit and the introduction of the CBK (Amendment) Act of 2021 in more detail.

### BOX 1 DIGITAL CREDIT IN KENYA

The drop in financial health has happened concurrently with the proliferation of a variety of easy-to-access mobile (digital) loan providers. The absence of a comprehensive regulatory framework led to risky market practices in digital lending. Since the arrival of digital loan products, considerable research has been conducted on the consumer protection implications of these products and the business practices of those offering these digital products, including aggressive collection measures and improper access to contacts.<sup>37</sup> Digital loans have also led to increased defaults, with around 4 million borrowers having defaulted on the Fuliza overdraft facility in 2022.<sup>38</sup>

Until 2021, hundreds of unregulated digital lenders were active in Kenya. The recent introduction of the CBK (Amendment) Act of 2021 and the Data Protection Act aimed to address the most egregious data privacy and consumer protection concerns related to digital credit products. The CBK (Amendment) Act of 2021 allows CBK to regulate digital credit providers by introducing licensing requirements which permits the digital lenders to operate. The Act requires digital credit providers to disclose their products' terms and conditions, seek approval before changing their pricing models, and adhere to data privacy requirements. The new regulations aimed to increase trust in the financial system and barred digital lenders from sharing

customers' information with third parties without prior consent.<sup>39</sup> As of September 2023, 32 digital credit providers have received licenses out of hundreds of applications, with the review process of the remaining applications ongoing.<sup>40</sup> Lenders with applications under review are permitted to continue operating, whereas lenders that failed to submit an application are not allowed to be active on the Kenyan market.

The Office of the Data Protection Commissioner (ODPC) is mandated to ensure compliance with the Data Protection Act. ODPC has exposed further bad practices such as digital credit providers using personal contact information from third parties to shame borrowers into paying their loans.<sup>41</sup>

While many digital lenders were unregulated before the introduction of the CBK (Amendment) Act, the majority of digital lending volume and value is provided by a few digital credit products that are associated with regulated banks. Three products constitute the major volume and value in digital lending. They are M-Shwari (NCBA's), KCB M-PESA (both savings and loans services), and Fuliza (described as an overdraft service). All three products are principally offered through Safaricom's M-PESA mobile money platform.

**Chama Loans:** Offered through MFIs, MFBs, and SACCOs to groups of individuals, chama loans can be either formal or informal in nature. These loans rely on the formation of a group of peers. The group savings serves both as collateral and to determine the amount an individual business owner can borrow. The group also serves to guarantee loan repayment if an individual fails to repay.

**Overdraft Loans:** These loans can be digital in nature, as is the case of the widely used M-PESA overdraft facility, Fuliza. Fuliza is offered jointly by KCB and NCBA in partnership with Safaricom's M-PESA. To illustrate market size, borrowing on Fuliza between January and June 2022 averaged KSh 1.6 billion in volume per day (approximately USD 13.5 million at the exchange rate on June 30, 2022).<sup>42</sup> Given the loan sizes and repayment periods, most overdraft loans are used for consumption or short-term liquidity.

**Hustler Loans:** The Hustler Fund, a government initiative to aid in the financial inclusion of individuals and MSEs, offers three formal loan products: Personal Finance (PLP) Loans, Micro enterprise Loans (group and individually-based). All loans have a saving mechanism in which 5 percent of the loan volume is deposited in a savings account every time an applicant receives a loan. The following products are currently available:

**PLP Loans:** Can be between KSh 500 to KSh 50,000, with interest rates set at 8 percent (APR) but can increase by 1.5 percentage points in the case of late payment. The loan repayment period is 14 days and can be extended to 30 days.

**Micro Loans:** Currently two types have been made available: Group microenterprise loan products (GMELP) and Individual microenterprise loan products (IMELP). For both offerings, interest rates are set at 7 percent per year but can increase by 1.5 percent for late payment. The loan repayment period is six months, and borrowers can opt to repay in installments or lump sum. *GMELP loans* are group loans which are appraised through a credit scoring algorithm based on the collective individual members' scores, including their savings and repayment histories. Loan amounts can be between KSh 20,000 and KSh 1,000,000. *IMELP loans* are designed for solely owned businesses that are registered under the Business Registration Service. Loan amounts can be between KSh 10,000 and KSh 200,000.

## 3.5 MSEs Face Challenges in Accessing Beneficial Credit

Although MSEs have broad access to financial services, they often struggle to qualify for affordable credit. The fluid nature of their business operations, high levels of informality, and lack of collateral pose key constraints contributing to MSEs' lack of accessible, affordable credit. Discussions with stakeholders during our working group session highlighted three main challenges that MSEs face as they try to access credit. Some of these challenges relate clearly to the inherent demographics and business model complexities of MSEs described above, while others may reflect opportunities for innovation within the Kenyan credit market.

### 3.5.1 Challenges Related to Data

*Lack of data visibility of MSEs' credit history:* Equitable financing of MSEs depends on the MSEs' credit history held at the CRB and which is used to generate a business owner's credit score. Formal lenders often use the score and CRB data as a core element of credit risk assessment. As discussed in greater detail in [Chapter 5](#), the lack of credit history visibility is due to various factors, including inconsistent reporting from formal lenders into the CRB system and the fact that MSEs often borrow from both informal and formal sources of credit. For example, an MSE's repayment history with a SACCO is not always available to CRBs and therefore may not be reflected in their credit score. These reporting deficiencies trigger the failure of the gating criteria (cited in the report introduction), that must be satisfied in order for the credit risk assessment process to be completed.

Reporting guidelines for lending sectors are as follows:

- » **Formal bank lenders:** Required to report according to regulatory guidelines. Intra-day digital loans may not be reported.
- » **Digital credit providers:** Newly licensed digital credit providers are required to report, however many have yet to begin reporting. Unlicensed digital credit providers are not reporting.
- » **SACCOs:** Deposit-taking SACCOs are required to report. Non-deposit taking SACCOs report inconsistently.
- » **Microfinance Banks:** Required to report.
- » **Microfinance Institutions:** Not required to report.
- » **Informal lending (Chamas):** Not required to report.
- » **Hustler Fund:** Not required to report.

*Lack of data accuracy:* the CBK-led Technical Working Group commissioned a study to evaluate the accuracy of the reported data. The study found opportunities to improve the data accuracy and has

initiated a validation project to address these opportunities. Consumer identification is a principal focus of the work, ensuring that reported data are appended to the correction individual.

*Lack of sufficient financial documentation:* The informal nature of MSEs compounds the issue of insufficient data that can be used to risk-assess the enterprise or individual. As previously mentioned, microenterprises are much less likely to maintain written records than small and medium enterprises. This limits the financial performance documentation that enterprises can provide when seeking credit.

### 3.5.2 Challenges Related to Capacity

*Lack of financial literacy:* As referenced earlier, many microenterprises are run by owners with lower education levels. Financial illiteracy may cause confusion related to comprehension of loan fee structures and/ or the adverse effects of a loan defaulting.

*Levels of formalization:* Most formal lenders only disburse business loans to licensed entities and consequently, MSE owners typically borrow in their personal capacity (based on their formal consumer credit scores) or from informal lenders. Increasing access to business loans would require addressing the structural issues that make it difficult for MSEs to obtain licenses and/or improving formal lenders' ability to originate business loans to unlicensed enterprises and/or improving lenders' access to informal or alternative credit underwriting data. Formalization requires MSEs to confront barriers such as compliance with laws and regulations related to registration, licensing, taxation, and social security.<sup>43</sup>

### 3.5.3 Challenges Related to Product Disclosure

*Issues related to product disclosures:* Due to the complex and legal language used in the terms and conditions, individuals and MSEs may not fully understand what they agree to when they consent to loan terms. This, coupled with high delinquency and default rates, points to the need for stronger consumer protection measures.

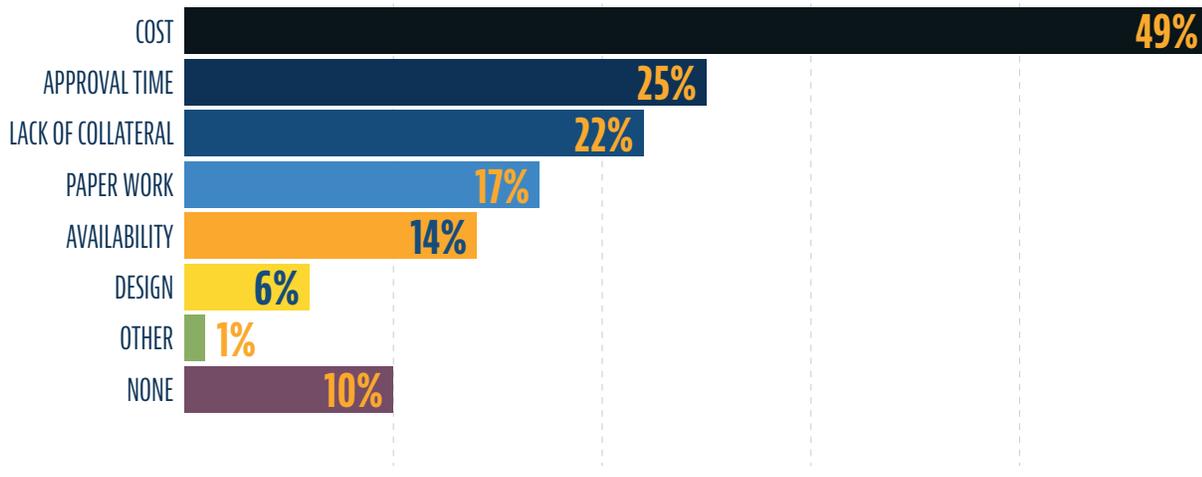
### 3.5.4 Small Firms Diaries Learnings

The feedback during the FRL Working Group sessions aligns with observations developed through the Small Firm Diaries Project, published in May 2023.<sup>44</sup> The project interviewed a number of micro and small business owners over time to understand how finances are managed. Relevant insights are offered here.

Interviewees cited that the cost of credit and aggressive payment periods were prohibitive for many MSEs (see [Figure 1](#)). The study authors summarized the interviewees' perspective as "When asked about their experiences with loans, respondents most consistently mentioned concern about the cost of a loan and apprehension that if they did get a loan they might not be able to keep up with the payments—they might be digging themselves into a financial hole too deep to dig out of—a very valid concern given the volatility we observe." Consequently, many MSEs turn to informal loans and channels for credit for short-term loans if necessary for day-to-day operations but do not view taking out loans to fund broader business stabilization and expansion to be a feasible option.

The survey showed that the reluctance to take a loan manifests more strongly for women-owned businesses with 57 percent indicating they never or rarely need a loan, compared with 53 percent of men expressing the same sentiment. This reluctance begs the question of how then do owners fund their business? The study goes on to suggest that many major expenses such as payroll, supplies, rent, and fuel are funded using cash rather than credit, as shown in [Figure 2](#).

**FIGURE 1 PERCEIVED BARRIERS TO ACCESSING CREDIT<sup>45</sup>**



**FIGURE 2 HOW SMALL FIRMS PAY FOR MAJOR EXPENSES<sup>46</sup>**

ACCOUNT TYPE USED FOR RECEIPT OF REVENUE AND EXPENSE PAYMENTS, BY MEDIAN PERCENTAGE OF TRANSACTION VALUE



	BANK ACCOUNT	CASH BOX	MOBILE WALLET
RECEIPT OF REVENUE	29%	57%	14%
EMPLOYEE PAYMENTS	37%	44%	19%
RAW MATERIALS	0%	61%	4%
RENT	6%	50%	0%
FUEL	0%	56%	18%
TAXES AND GOVERNMENT FEES	0%	100%	0%
UTILITY COSTS	0%	42%	33%

The MSEs reluctance or inability to borrow at beneficial rates and preference for using cash converges to undermine the business capacity to invest, stabilize and grow with 75% of MSEs citing lack of capital as a barrier to investment.<sup>47</sup> As an example, business start-ups overwhelmingly draw upon personal savings or family support to launch rather than a loan.<sup>48</sup>

### 3.6 Credit Experiences of Women-owned MSEs

Microenterprises help drive Kenya’s economy, and most are owned by women. The following examples illustrate how female micro entrepreneurs contend with the inherent challenges of operating an MSE, discussed above, in part by using short-term liquidity oriented credit. Further, these examples suggest the importance of continued innovation on the part of lenders, data vendors and regulators to enhance the availability of credit underwriting data for MSEs that, in turn, the availability of safer and lower-cost forms of capital loans that can support MSE growth and investment.

**BOX 2 LILIAN, GREEN GROCER, NAIROBI**

CURRENT LOAN AMOUNT	NUMBER OF EMPLOYEES	AGE OF BUSINESS	BUSINESS LICENSE
<b>KSh 25,000</b>	<b>0</b>	<b>6 months</b>	<b>No</b>

LILIAN is a green grocer with an *informal market stall* in Nairobi selling fruits and vegetables. She used her microfinance institution (MFI) loan to obtain her informal market stall. She would like to move to a different location, given that she could be evicted at any moment in her current location.

**CREDIT EXPERIENCE**

Lilian was part of a chama savings group, which allowed her to apply for an unsecured loan with an MFI. Her chama group collateralized the loan. As part of the initial onboarding process with the MFI, she had to attend a six-week financial literacy course before she could be considered for a loan. She has used quick digital loans from M-Shwari in the past and often relies on the overdraft M-PESA facility, Fuliza. She continues to attend regular meetings with her local chama savings group.

**DATA FOOTPRINT**

- OUTSTANDING LOANS** » Personal loan with MFI, collateralized by chama group members.  
» Access to overdraft M-PESA facility, Fuliza.

- MOBILE USAGE** » Has a smartphone that she uses to accept payments.

- RECEIVING PAYMENTS** » M-PESA or cash payments are accepted.

- RECORD KEEPING** » As part of her MFI-mandated chama group, she has to keep a record of her business sales for the week, and her weekly expenditures in stock purchases, salary, rent expenses, transport, and water and electricity usage (if any).  
» She keeps limited written records of sales and expenditures. Receiving payments on M-PESA helps facilitate her record-keeping.

**BOX 3 CATHERINE, CAFETERIA, NAIROBI**

CURRENT LOAN AMOUNT	NUMBER OF EMPLOYEES	AGE OF BUSINESS	BUSINESS LICENSE
<b>KSh 60,000</b>	<b>1</b>	<b>15+ years</b>	<b>No</b>

**CATHERINE** owns a small cafeteria in Nairobi on a commercial premise. Her business is unlicensed and has been operating for more than 15 years. She uses M-PESA and cash for transactions and keeps a detailed record book. She has one MFI loan and does not rely on any overdraft facilities.

An increase in the price of goods and rising inflation have impacted local businesses in her area. Catherine indicates that customers still come but do not purchase as much food; as such, she has adjusted her menu to offer simpler breakfast items and a takeaway option. Catherine pays her one employee at the end of each day.

**CREDIT EXPERIENCE**

Catherine has long been part of her chama savings group, speaking warmly of the camaraderie of being part of such a group. Her chama allowed her to access her first unsecured loan with an MFI when she first opened her business. She attended a six-week financial literacy course as part of the onboarding process. She accessed multiple loans with her current MFI and continues to regularly attend meetings with her chama savings group. Currently, Catherine has one outstanding MFI personal loan. Her goods are purchased from local wholesalers with M-PESA without supplier's credit. She prefers paying with M-PESA because the exact amounts make record-keeping and budgeting easier. She often offers credit to her customers, many of whom she has known for years.

**DATA FOOTPRINT**

<b>OUTSTANDING LOANS</b>	<ul style="list-style-type: none"> <li>» Personal loan with MFI, taken individually.</li> <li>» Catherine does not want to access more credit, as she is aware of her inability to make additional payments on top of her chama savings group.</li> <li>» Catherine is also wary of digital credit products and does not want to put herself in a situation in which she gets access to fast credit that she cannot repay.</li> </ul>
<b>MOBILE USAGE</b>	» Catherine uses a smartphone for M-PESA payments.
<b>RECEIVING PAYMENTS</b>	» M-PESA or cash payments accepted with preference for M-PESA.
<b>RECORD KEEPING</b>	» She keeps detailed records of her daily business sales, and her daily/weekly expenditures in stock purchases, salary, rent expenses, transport, and water and electricity usage.

**BOX 4 VENNY, SMALL GROCER, NAIROBI**

CURRENT LOAN AMOUNT	NUMBER OF EMPLOYEES	AGE OF BUSINESS	BUSINESS LICENSE
<b>KSh 35,000</b>	<b>1</b>	<b>2 years</b>	<b>No</b>

VENNY sells an assortment of goods (cookies, eggs, candy) in an open area with a small stand in Nairobi. Her business is unlicensed and has no employees. She started her business because she could not find a job. She uses M-PESA and cash for transactions and keeps a record book. She has an MFI loan in addition to several open digital loans.

**CREDIT EXPERIENCE**

Venny is part of a chama savings group, which allowed her to apply for an unsecured loan with a MFI. Like Lilian's loan, Venny's loan is collateralized by her chama group. As part of the initial onboarding process with the MFI, she had to attend a six-week financial literacy course before being able to apply for a loan. She has an outstanding loan from M-Shwari and often relies on the overdraft M-PESA facility, Fuliza. She continues to attend regular meetings with her local chama savings group.

**DATA FOOTPRINT**

<b>OUTSTANDING LOANS</b>	<ul style="list-style-type: none"> <li>» Personal loan with MFI, collateralized by chama group members.</li> <li>» Outstanding digital loan with M-Shwari.</li> <li>» Access to overdraft M-PESA facility Fuliza.</li> </ul>
<b>MOBILE USAGE</b>	» Venny uses a smartphone with an added SIM card for M-PESA payments.
<b>RECEIVING PAYMENTS</b>	» M-PESA or cash payments are accepted.
<b>RECORD KEEPING</b>	» As part of her MFI-mandated chama group, she has to keep a record of her business sales for the week and her weekly expenditures in stock purchases, salary, rent expenses, transport, and water and electricity usage (if any).

**BOX 5 ANN, CAFETERIA, NAIROBI**

CURRENT LOAN AMOUNT	NUMBER OF EMPLOYEES	AGE OF BUSINESS	BUSINESS LICENSE
<b>KSh 5+ mil</b>	<b>19</b>	<b>22+ years</b>	<b>Yes</b>

**ANN** owns two cafes in a formal commercial location in Nairobi. Her businesses are licensed and employ 19 people across the two cafes. Several employees have been with her for over ten years of her 22 years in business.

She accepts credit cards, M-PESA, and cash for transactions, and she keeps digital records of transactions. She has one loan from a Microfinance Bank (MFB) and relies on overdraft facilities for daily liquidity management.

**CREDIT EXPERIENCE**

Ann started saving while working at her previous job to secure the goodwill needed to obtain the commercial space at the cafe's current location. After securing the premises, she took an initial KSh 100,000 individual loan from an MFB to convert the space into a cafe. After repaying the loan, she took out a USD 25,000 loan with an informal moneylender at an interest rate of 30 percent per month. She was able to promptly repay this loan as well.

In 2003, she formalized her businesses. Over the years, she has acquired several loans from the same MFB to expand her businesses, increasing her loan amounts from KSh 250,000 to KSh 2.5 million. She has also invested in two commercial properties, and her last business loan with the MFB was to acquire her second commercial property, a hotel.

Unfortunately, COVID-19 hit her restaurant businesses hard. In a show of loyalty to her long-term employees, she continued to employ them throughout the pandemic, even without a customer base. Consequently, she missed payments on her outstanding loan, was negatively listed with the CRBs, and had to sell one of her commercial properties in 2021. By 2023, she reported that the restaurant business was doing almost as well as in 2019 but indicated that the cost of goods had increased.

**DATA FOOTPRINT**

<b>OUTSTANDING LOANS</b>	» Business loan with MFB
<b>MOBILE USAGE</b>	» Ann has a smartphone and uses social media to advertise her business.
<b>RECEIVING PAYMENTS</b>	» M-PESA, credit card, or cash payments are accepted.
<b>RECORD KEEPING</b>	» She keeps detailed records of her daily business sales and expenditures in stock purchases, salary, rent expenses, transport, and water and electricity usage.

## 3.7 Summary

MSEs are crucial to employment creation and economic growth in Kenya, particularly when considering women ownership. Women-owned enterprises are primarily informal and unlicensed and often micro-enterprises.

Women-owned micro-enterprises face disproportionate constraints in terms of credit access. These constraints arise from a confluence of factors, such as ineligibility for conventional business loans, business fragility and instability, and gender-based lags in capabilities and resources.

Although credit is generally available to MSEs, the options are often of low-quality. The types of credit products that most MSEs qualify for are lower line sizes at higher annualized interest rates with shorter repayment periods, mainly appealing to liquidity-focused borrowers. While borrower protection and fair lending issues are beyond the scope of this paper, it will be important to evaluate the safeguards that will be necessary to ensure the evolution of affordable higher value loans and lines of credit in the MSE lending market.<sup>49</sup>

### A Credit Management Narrative for Women-Owned MSEs

In this chapter, we have attempted to surface a number of relevant themes that offer a narrative for how women-owned MSEs approach and engage with the credit lending industry. These themes can be synthesized as follows:

- » MSEs, especially women-owned microenterprises, can be relatively fragile in terms of leadership maturity, experience and operating stability. Many exist solely with a day-to-day survival focus rather than a growth orientation. These businesses can be perceived as higher risk by lenders.
- » Many loans, especially those with higher lines, are prohibitive with regard to cost and repayment terms, reflecting lender perception of MSE risk. Essentially MSEs are dissuaded from attempting to borrow higher loan amounts which consequently inhibits their ability to invest and grow the enterprise.
- » Given this exclusionary position, most MSE borrowing activity is concentrated in short-term, low-line loans sourced informally through chama groups or formally as a consumer-based loan or overdraft (e.g. M-Shwari, KCB M-PESA, Fuliza). While this allows the business to address their liquidity needs, it also functions as a ceiling that inhibits stabilization and growth.

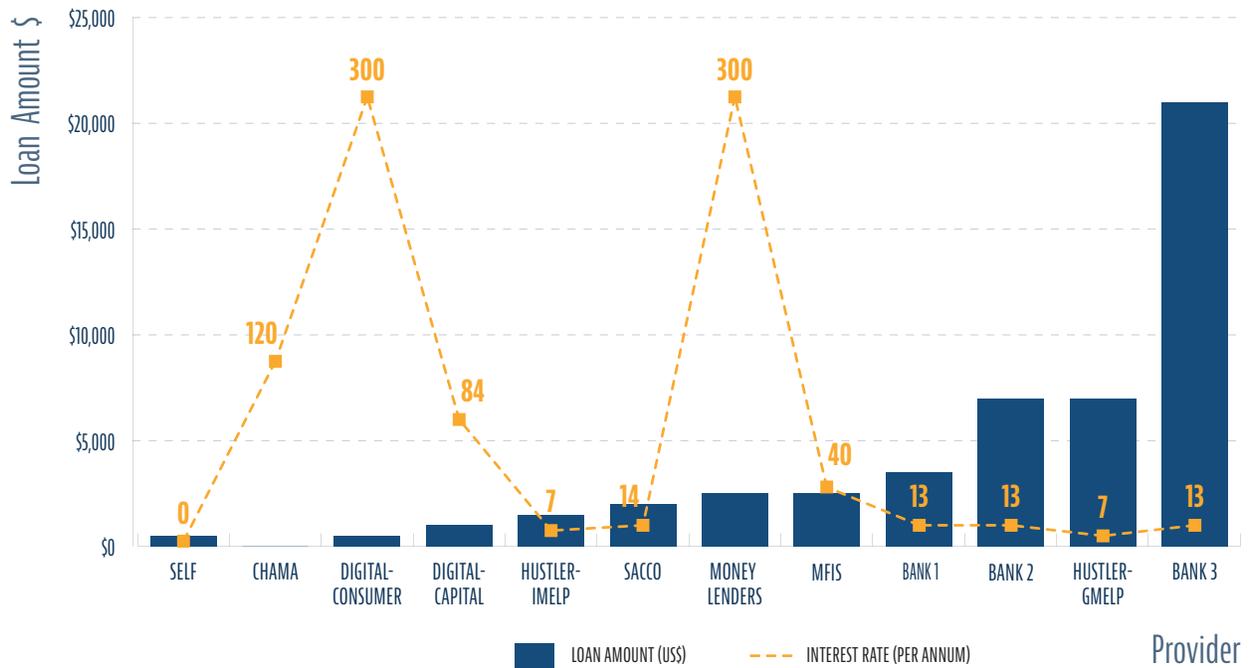
In the next chapter, we focus on the credit risk assessment and qualification process that is foundational to the MSEs ability to qualify for a loan. Fundamental to the process is the accuracy, breadth and depth of the data that must be available in order to evaluate the MSE owner's creditworthiness. We will discuss the specific data sources and how these data requirements relate to different types of loans. Given their pivotal contribution, if the data do not meet the requirements of the credit risk assessment process the MSE is unlikely to qualify for the loan. As we shall demonstrate, deficiencies in the data ecosystem drive much of the reason for women-owned MSEs to obtain credit.

# 4. THE DATA ECOSYSTEM THAT DRIVES MSE CREDIT ACCESS

In this chapter we will map in more detail the differences among different lenders as to the types of loans they provide, the pricing and amount of such loans and the data they require to evaluate creditworthiness.

## 4.1 Loan Choice Is Heavily Determined by the Lender’s Credit Risk Assessment Process

**FIGURE 3 MSE CREDIT PRODUCTS**



Sources: MSC—2023 (Range max values). Sinapis—2020. FinRegLab—2023

Figure 3 demonstrates the range of loan products available to MSEs in Kenya. The chart shows the relationship between loan amount, pricing (interest rate) and repayment terms for particular products that are accessible to different types of enterprises (micro/small, formalization status, collateral ownership). At the left hand side of the chart, loans are available without collateralization

or business formalization. Note that maximum loan limits are small and interest rates relatively high. Loans are made through a variety of formal and informal channels to either the business or to the business owner *based on their* consumer credit profile. Moving progressively to the right of the chart, maximum loan amount generally increases along with more beneficial terms. However, eligibility for these loans likely requires that the business is formalized, collateral is provided and/or the business has sufficient cash-flow to be able to repay within a shorter time frame.

In **Chapter 3** we observed that women-owned MSEs tend to concentrate their borrowing on smaller, short-term, liquidity-focused loans given that lenders perceive their businesses as higher risk and consequently price and structure larger loans more prohibitively. Naturally these MSEs are reluctant to take on these loans given the fear of repayment failure and impact on future creditworthiness.

A lender's credit risk assessment process determines which products the MSE owner is to borrow. The process requires that the MSE provide empirical evidence or data to demonstrate that it has a sufficient capability and capacity for loan repayment. Relevant data can include owner credit profile and score, business performance, cash-flows and collateralization value. In other words, the MSE must demonstrate that they are lower risk. As loan value increases, the credit risk assessment process typically requires that the borrower exhibits higher creditworthiness demonstrated through a broader and deeper dataset of credit behaviors and business metrics. Referring again to **Figure 3**, an MSE owner can qualify based solely upon their personal credit file and score while larger loans (to the far right of the chart) require evidence of business formalization, collateral, business performance and cash-flow data in addition to the business owner credit file and score.

*It should now be evident that the existence of an accurate and timely data ecosystem is a critical gating factor for enabling access to credit. If relevant data are incomplete, inaccurate, insufficient, inaccessible or simply delayed, then credit risk assessment accuracy is diminished. This incentivizes lenders to increase pricing and tighten terms to account for potential additional financial exposure.*

This observation is profoundly relevant for MSEs. If the MSE borrows from sources who do not or can not report the borrowers repayment data in a format that enables CRBs and lenders to ingest the data into their credit risks assessment process then the MSE receives no credit for good repayment behavior resulting in a perception that they are higher risk. Conversely, if the MSE's poor repayment behavior data are not delivered into the ecosystem, then a subsequent lender will assess the MSE as less risky than it actually is. **Box 6** below demonstrates these consequences. These information asymmetry scenarios have costly implications resulting in higher priced loans for MSEs and higher losses for the lender, effectively driving the overall lending system further and further out of balance as it attempts to manage and anticipate the asymmetry condition.

#### **BOX 6 THE CONSEQUENCES OF MISSING LOAN PERFORMANCE DATA ON RISK ASSESSMENT**

Consider a consumer who has taken out five loans. Four loans are reported and recorded in the consumer's credit report at the CRBs. The consumer has made on-time payments for all of these loans for the duration of each loan. Consequently, when the lender pulls the consumer's credit score, the score is a very strong 750, indicating that the consumer is highly creditworthy and will be approved for a new loan if needed.

However, the consumer's fifth loan was originated by a digital lender, which does not report loan information to any of the bureaus. The consumer has defaulted on this loan. If the consumer's defaulted digital loan is included in the score calculation, their score would drop to 550, indicating high risk. The consumer would likely be declined if applying for credit with an accurate score.

## 4.2 Prioritized Data Sources and Data Requirements

The remainder of this chapter explores the data sources typically used within the credit risk assessment process for MSEs in Kenya. Data are grouped into two classes; firstly, data that are foundational or required for all lending and secondly, data that are selectively used by the lender to develop a more robust risk assessment usually for larger loan amounts.

### 4.2.1 Required Data for All Lending

Lenders require borrowers to prove their identity and use a standard 'Know Your Customer' process. As loan size increases, lenders may also require proof of business existence:

- » **Know Your Customer (KYC).** Lenders need to identify each borrower or borrowing entity uniquely. This is done through the Kenya National Identity Card in case of an individual.
- » **Business Registration.** Most (formal) lenders require enterprises to be formally registered to receive a business loan. Registration is not required in some cases but is considered in the credit risk assessment.
- » **Kenya Revenue Authority (KRA) PIN.** Similar to business registration, most formal lenders want, especially for larger loan amounts, to receive information on the KRA PIN of an individual or entity.

In addition, lenders check a prospective borrower's credit score and credit profile.

- » **Credit Scores.** The credit score is generated by the CRB, built on the borrower's conventional credit data that has been reported to and stored within the CRB database. As we outlined at the beginning of this study, in order to have a credit score, the borrower must have a credit file with recent history of loan repayment information. Provided there is a sufficient amount of recent data, a credit score can be generated. Without sufficient data, the borrower is deemed 'no-score,' credit invisible, or 'no-hit,' and can be perceived as higher risk. Those with a credit file and score can still have a low score or be negatively listed based on their credit management history. Individuals with no credit file presence at all may have chosen to operate their business on a cash-only basis or have higher risk characteristics that result in lenders not being willing to lend to them. As of May 2023, more than 20-21 million entities were listed with the CRBs, leaving approximately 20 percent of the Kenyan adult population without a credit file at the CRB.<sup>50</sup>

*This is an especially important note given that a meaningful portion of the lending industry does NOT report loan performance to the CRBs (see discussion in Section 5.2). The MSE owner's full credit management capability is highly likely to be only partially visible through the CRB credit file, especially if the MSE borrows from lenders that do not report or from informal sources as is largely the case for women-owned MSEs. These MSEs are perceived to be higher risk thereby limiting their credit access options. This understanding in addition to the fact that approximately 20% of Kenyan adults are completely invisible at the CRB, powerfully clarifies the dynamics of the credit access concern.*

### 4.2.2 Optional Data Used for Credit Risk Assessment of Higher Value Loans

Depending on the lender's credit policy, a number of other data sources may be considered. Again as a general principle, as the loan value increases, the data requirements become more extensive. Importantly these data differ from conventional data given they typically require consumer permission to make them available to the lender for inclusion in risk assessment.

- » **History of Savings (chama).** Showing a consistent savings pattern is a requirement for some lenders, such as certain MFIs accepting new borrowers with a background of being part of a chama. Generally, these data should be available within the same chama. However, it might not be transferable to other chamas, savings groups, or other institutions due to its informal nature and the fact that these data are often recorded in a non-digitized format.
- » **Collateral.** Collateral is traditionally a requirement for most (larger-sized) loans. However, more and more lenders are starting to provide uncollateralized loan options. Uncollateralized loans were initially small in size, but the limits of these loans are increasing over time as lenders try to compete and differentiate themselves.<sup>51</sup> It is often difficult, particularly for micro and small enterprises, to comply with collateral requirements from lenders, given that they may not own property, vehicles, or machinery.
- » **Guarantors.** Traditionally, SACCOs require borrowers to provide one or more guarantors when applying for a loan. In some cases, larger-sized loans from banks or other lending institutions also require guarantors, which can take the form of a director's guarantee.
- » **Business Plan & Metrics.** In some cases, often for larger loans, commercial banks want to understand the financials of an enterprise better and are required to gain insights into business metrics and a business plan or model.
- » **Membership.** For specific lenders, most notably SACCOs, being a member is a requirement to access a loan. Membership fees apply, and historically, a so-called 'common-bond' was required to become part of a SACCO. At present, SACCOs are increasingly operating as 'open-bond' SACCOs.
- » **Digital Wallet/Bank Data.** Digital wallet (M-PESA) data are a requirement for most digital loans to underwrite. Access to M-PESA digital wallet data can be provided directly by giving consent to Safaricom partner banks, downloading third-party apps and giving consent for phone usage to be accessed and analyzed, or manually downloading and submitting M-PESA statements. Beyond digital loans, more lenders, including some MFIs, have started requiring borrowers to provide their mobile wallet data or bank statements as part of their credit risk assessment process in response to the richness of information captured in digital wallet data and the lack of information captured in the conventional credit profile. Borrower propensity for using digital wallets has resulted in a preference to consider these data rather than bank checking account data.

## 4.3 Enhancing Credit Risk Assessment: Enabling a 360-Degree Risk Assessment View With Cash-Flow Data

Pertinent to Kenyan financial services and especially women-owned MSE access to credit is the increasingly prevalent use of mobile phone digital wallets and the associated transaction reporting. Here, individuals transfer money from their bank account into the mobile wallet, which is then used as their primary form of 'currency' for most of their financial transactions. The capacity to evaluate

this transaction activity can provide an incremental and insightful lens to a second risk dimension—the borrower’s capacity to *afford* a loan repayment.

Historically, credit risk assessment has empirically leveraged conventional credit data to provide insight into the individual’s willingness or likelihood to repay. The implicit understanding is that the borrower has sufficient funds to repay *and* chooses to use those funds to repay or not repay under circumstances of constrained funding. Conventional data based credit scores implicitly capture both dimensions in their design and calibration. The idea of affordability separates this implicit understanding into two distinct elements; firstly, does the borrower have sufficient funds in their account to make repayments? And secondly, is the borrower willing to use those funds to repay a specific loan? Together, these two dimensions offer a 360-degree view of the business owner’s ability to manage debt.

Appropriating this affordability concept for credit risk assessment of women-owned MSEs can substantially expand credit access for two reasons. Firstly, MSEs that have an insufficient amount of credit history to generate a conventional data-based credit score can supplement their data history with cash-flow behaviors. These MSEs would otherwise be denied access or offered credit at prohibitive terms and price. Secondly, MSEs that operate on a cash-only basis now have the option to share their cash-flow data to demonstrate their capacity to afford loan repayments. In both scenarios, the MSEs have the opportunity to use cash-flow data to more accurately assess their risk level.

### 4.3.1 A 360-Degree Business Credit Report

Building on the ideas of independent credit propensity and affordability, we conclude this chapter with a proposal for a business credit risk report framework. The report identifies scores, financial behavioral data, and additional relevant information that can inform risk assessment. The goal here is to identify the data components that, when present and fully validated, provide the 360-degree view for risk assessment of the MSE, including the individuals who own the business. The framework in **Box 7** leverages industry understanding for conventional credit risk assessment and builds on it with incremental data to support deeper and broader risk insights with the goal of delivering a more accurate assessment.

## 4.4 Summary

In this chapter we have discussed how the data requirements for accessing credit differ depending on a loan’s size and repayment term. As the loan amount and or repayment terms extend, more complex data solutions are required for underwriting an MSE. Critically for women-owned MSEs, the price inflation associated especially with larger loans and the inability to consider non-conventional data (data not currently resident in the CRB repositories) for credit risk assessment results in substantial barriers to access credit. Consequently, these MSEs are typically only able to access and afford enough credit to meet their daily operational liquidity management needs. While this is helpful for the enterprise, it naturally inhibits meaningful growth that could fundamentally enhance the economic livelihoods of many Kenyan families.

While this is very much the current state of MSE credit access, we have identified criteria related to the data ecosystem condition that can ameliorate the credit access restrictions—namely complete, accurate and timely conventional data and the inclusion of non-conventional data that provides expanded and enhanced risk assessment. The following chapters will discuss how these criteria can be satisfied.

**BOX 7 KEY DATA COMPONENTS WITHIN A BUSINESS (MSE) CREDIT REPORT****1. Know Your Customer (KYC)/****Personal Identifiable Information (PII)**

- » Formal registration—  
use business registration data
- » Informal (not registered)—  
use consumer ID, national #

**2. Credit Repayment Propensity****(conventionally understood credit risk)**

- » Credit score
- » Borrower-related loans  
(consumer-level obligation)
  - › Payment history, age of credit, balances,  
inquiries, public records
  - › Source hierarchy: CRB
- » MSE-related loans (business-level obligation)
  - › Payment history, age of credit, balances,  
inquiries, public records
  - › Source hierarchy: supply chain sources,  
consumer-permissioned data
- » Principal assets (collateral)
  - › Property mortgage
  - › Vehicle loans
  - › Other (inventory, etc.)
- » Operating infrastructure expenses
  - › Rent
    - Payment history, length of rental  
relationship, amount owed
    - Source hierarchy: MSE Landlord,  
Consumer-permissioned data
  - › Utilities
    - Payment history, length of relationship,  
amount owed
    - Source hierarchy: Provider to MSE,  
Consumer-permissioned data

## › Telecommunications expenses

- Payment history, length of rental  
relationship, amount owed
- Source hierarchy: Provider to MSE,  
Consumer-permissioned data

## › Business Trades (non-CRB reported)

**3. Affordability (Available cash for repayment)**

- » Affordability score
- » Business cash-flows
  - › Total inflows/revenue, total outflows/  
expenses, balances, overdraft (3, 6, 9, 12  
months)
  - › Source hierarchy: Safaricom (transactions),  
SMS (transactions), Consumer-permission
- » Borrower-related cash-flow
  - › Total inflows/revenue, total outflows/  
expenses, balances, overdraft (3, 6, 9, 12  
months)
  - › Source hierarchy: Safaricom (transactions),  
SMS (transactions), Consumer-permission

**4. Business Performance Metrics**

- › Assets, debts, number of employees, other

**5. Business Sector Contexts**

- › Sector relevant metrics—unique to sector\*
- › Owner education, Accreditations,  
Affiliations
- › County records

**6. Payment Channel Activity/Patterns/Hierarchy**

- › Mobile
- › Digital
- › Cash
- › Conventional

\* Sector relevant metrics may include supply-chain information, transportation logistics, agriculture data, weather and seasonality patterns etc.

## 5. THE ROLE OF CONVENTIONAL DATA

### 5.1 The Push from Partial Towards Full Visibility

Currently, credit risk underwriting is based on partial visibility of the CRB credit file, which results in an incomplete picture of the consumer's financial footprint. Given partial visibility, lenders build conservative pricing and terms that account for the unknown risk from missing pieces of the footprint. Partial visibility has resulted in an ecosystem and product innovation environment oriented towards short-term, small-sized lending, ultimately creating a sector ceiling on the economy. This reality greatly hinders MSEs' stability and growth.

Data visibility has further deteriorated as borrowers have moved from taking conventional loans to taking increasing numbers of non-reported digital loans. Traditional loans are more likely to be comprehensively and consistently reported than digital ones. Without action to increase the visibility of digital lending, visibility of MSEs' credit footprints will continue to contract.

The goal of the credit ecosystem in Kenya, like any credit ecosystem, should be to move towards a 360-degree view of the enterprises' financial footprint. This can be achieved by quantifying propensity to repay and loan repayment affordability:

- » Affordability refers to the funds available for repayment, and it is linked to cash-flow insights. These insights are also likely to provide visibility for less mature enterprises and new entrants.
- » Propensity, or willingness, refers to the available funds directed to specific loan repayment.<sup>52</sup> Propensity is understood via the credit score calculation, which is more likely to provide footprint visibility for mature businesses and thick file enterprises.

Despite its challenges, conventional credit data will always be a key component of risk assessment in underwriting, and continued investment to improve this part of the ecosystem is warranted. Initiatives underway by CIS-Kenya to enhance data quality are critical contributors to the ecosystem health. Additionally, the development of cash-flow scores should be pursued, as a combined cash-flow and credit score can deliver superior predictive insight.<sup>53</sup>

Improved visibility foundationally adds to the safety and soundness of the credit ecosystem by reducing losses and business failures. Furthermore, moving towards full visibility in terms of affordability and propensity will allow lenders to offer both growth and liquidity options to more borrowers. Finally, the universe of enterprises with access to formal credit options will expand as visibility improves. All of the benefits mentioned above culminate in reducing the sector ceiling effect, allowing the MSE sector to contribute in greater measure to the Kenyan economy.

To this end, and in response to the challenges laid out in earlier chapters, we have identified a set of recommendations based on our working group engagements. These recommendations are categorized into three areas:

- » Conventional data (data housed at the bureaus)
- » Non-conventional data (currently not resident within the CRB data environment, often requiring consumer consent to access)
- » Infrastructure (policy and regulatory scaffolding)

Recommendations in each of these areas were presented to stakeholders during the working groups' Closing Plenary Meeting. Stakeholders discussed and aligned on prioritizing these recommendations.

## 5.2 Conventional Data Challenges and Solutions

### 5.2.1 The Banking (Credit Reference Bureau) Regulations, 2020

On the conventional data side, the Credit Information Sharing (CIS) framework is at the core of credit data exchange between lenders, credit reference bureaus, and borrowers. It is a crucial mechanism to improve the visibility of enterprises' financial footprint to the whole ecosystem. It should be noted that the analysis in this section was conducted while The Banking (Credit Reference Bureau) Regulations, 2020 were in place. On August 28, 2023, the High Court of Kenya nullified these regulations.<sup>54</sup> The National Treasury and the Central Bank subsequently appealed the decision of the court, and the Court of Appeal temporarily reinstated the CRB Regulations pending the hearing and determination of the appeal in February 2024.<sup>55</sup> The analysis and recommendations in this section focus on improvements to the CIS mechanism to achieve full visibility of the financial footprint of MSEs. Should the CRB Regulations stay in place following an appeal, the recommendations in this section will provide directions for incremental changes to the CIS mechanism. Should the CRB Regulations not stay in place following the appeal, the analysis of challenges and recommendations in this chapter and throughout this report will provide directions for a larger overhaul of the CIS mechanism while aiming for full visibility and reducing the market risk premium.

**Background:** Credit information sharing plays a crucial role in creating a safe and sound credit industry, as it allows lenders to exchange details about borrowers and their credit management performance, including the usage and repayment of credit products. This sharing helps to minimize the information asymmetry between parties. Moreover, when borrowers know that their payment behavior is accessible to all lenders in the industry, it enhances their motivation to repay their loans.

Credit information sharing in Kenya has come a long way, and understanding the context in which the mechanism has been developed is crucial to understanding how it operates today. The mechanism began with an amendment to the Banking Act in 2003 that provided for the development of regulations to establish credit reference bureaus (CRBs), and the first license was issued to CRB Africa Limited by the Central Bank of Kenya (CBK) in 2010.<sup>56</sup> Credit information commenced initially by sharing negative information only and was limited to sharing by banks.<sup>57</sup> Reporting positive and negative information was a reality only after the CBK Act was amended in 2012, also including microfinance banks in the mechanism.

The 2012 CBK Act amendment required a revision of the Credit Reference Bureau Regulations, resulting in the Credit Reference Bureau Regulations, 2013, which became effective in 2014. These new regulations allowed for so-called third-party (non-bank) credit providers to participate in the

credit information sharing mechanism. Including third-party credit providers coincided with the increasing presence of digital lenders in the credit landscape. Digital lenders and their associated practices,<sup>58</sup> as well as a strong public perception that the credit information sharing mechanism is predominantly used to “blacklist” individuals from accessing credit, caused credibility challenges that needed to be addressed. In 2020, CBK published revised CRB regulations introducing reforms and measures,<sup>59</sup> which were in place until August 28, 2023. Most significantly, CBK withdrew the approvals granted to unregulated digital (mobile-based) and credit-only lenders as third-party credit information providers to CRB, barring them from submitting credit data to the CRBs.

On August 28, 2023, the High Court of Kenya nullified the Credit Reference Bureau Regulations, 2020, for failure by the Cabinet Secretary of National Treasury and Economic Planning to transmit the Regulations to the Clerk of the National Assembly in a timely manner.<sup>60</sup> This nullification affects CBK’s implementation and supervision of the CIS framework.

*Expectation Versus Reality:* Central to the Credit Information Sharing (CIS) mechanism are the three licensed CRBs: Metropol, Transunion, and Creditinfo. There is competition between CRBs on both the data and analytics front. Internal strategies include gathering information from more types of lenders to enhance credit scores and reports, and creating partnerships with other players, such as data aggregators. Mandating universal reporting to the three CRBs would allow them to use a more holistic view of borrowers’ credit profiles in their credit score calculations.

The tables below contrast how the CIS mechanism in Kenya is supposed to operate and how it is operating in practice for each of the main stakeholders.

STAKEHOLDER	NUMBER OF PARTICIPATING INSTITUTIONS <sup>61</sup>
BANKS	42
<p><i>EXPECTATION</i></p>	
<p>Banks are regulated and licensed by the Central Bank of Kenya and are mandated to share full file data through daily submissions and monthly reports with all three CRBs.</p>	
<p><i>REALITY</i></p>	
<p>Banks generally share full file data with all three CRBs through daily submissions and monthly reports; however, if certain products involve repayment within the 30-day reporting cycle, information is not always shared with the CRB system. For example, the Fuliza overdraft facility can be accessed by enterprises in the morning and repaid in the afternoon. This may not be reported to the CRBs entirely.<sup>62</sup> Although banks generally share data comprehensively and consistently, lack of reporting may be due to technology challenges, and reporting rules are said not always to be followed. In addition, there is a sentiment among banks that other institutions are not consistently following reporting rules and that sharing their data could give competitors a business advantage.<sup>63</sup></p>	
<p><i>CONSEQUENCE</i></p>	
<p>Inconsistency in or issue with credit data reporting by banks may greatly impact the visibility of financial footprints, causing a deterioration in risk assessment capabilities. Given the dominant position of banks in the Kenyan lending system, this creates a fundamental safety and soundness weakness in the system.</p>	

STAKEHOLDER	NUMBER OF PARTICIPATING INSTITUTIONS <sup>61</sup>
<b>MICROFINANCE BANKS (MFBs)</b>	13
<p><i>EXPECTATION</i></p> <p>Deposit-taking microfinance institutions or microfinance banks are regulated and licensed by the Central Bank of Kenya and are mandated to share full file data through daily submissions and monthly reports with all three CRBs.</p>	
<p><i>REALITY</i></p> <p>The same applies to MFBs as to banks. They are sharing full file data with the three CRBs through daily submissions and monthly reports.</p>	
<p><i>CONSEQUENCE</i></p> <p>No major issues exist with the reporting of MFBs.</p>	
<b>MICROFINANCE INSTITUTIONS</b>	0
<p><i>EXPECTATION</i></p> <p>Microfinance institutions are currently not allowed to share data with the three CRBs following the ruling of CBK in 2020.</p>	
<p><i>REALITY</i></p> <p>Microfinance institutions are currently not allowed to share data. MFIs are, however, pulling credit reports from the CRB system for credit risk assessment purposes.</p>	
<p><i>CONSEQUENCE</i></p> <p>Loans from MFIs are non-reported and, therefore, are missing from an entity's credit profile. This leads to partial visibility of financial footprints, creating similar exposure to the system, albeit on a less scale, as the exposure due to banking sector reporting.</p>	
<b>DIGITAL CREDIT PROVIDERS (DCP)</b>	5
<p><i>EXPECTATION</i></p> <p>Digital credit providers that have obtained a license from CBK are mandated to share full file data with the three CRBs every month.</p>	
<p><i>REALITY</i></p> <p>Comprehensive reporting is currently not happening for all licensed and mandated DCPs due to a lack of enforcement. Only a fraction of the licensed DCPs have started full file reporting to the three CRBs, with most providers not having re-started reporting to the CRBs.<sup>64</sup> DCPs want to re-integrate data from before the ban on reporting, and the CRBs are in ongoing conversations with the licensed DCPs on how to deal with this request.</p> <p>The majority of digital credit providers have still not received their license, which means they are, by definition, excluded from the CRB system and currently not reporting data.</p>	
<p><i>CONSEQUENCE</i></p> <p>The majority of loans from DCPs are currently not reported and, therefore, are missing from an entity's credit profile. This leads to partial visibility of financial footprints.</p>	

STAKEHOLDER	NUMBER OF PARTICIPATING INSTITUTIONS <sup>61</sup>
<b>DEPOSIT-TAKING SACCOS</b> <span style="float: right;">150</span>	
<p><i>EXPECTATION</i> Deposit-taking SACCOs are regulated by SASRA but are mandated by CBK and the CIS mechanism to share full file data with the CRB system every month.</p>	
<p><i>REALITY</i> Credit data sharing is currently not widely happening, with institutions pointing out the conflicting positions in the SACCO Societies Act, which regulates the SACCOs, and the CRB Regulations, which are issued under the Banking Act, on whether or not they are mandated to share full file data with the three CRBs monthly. In practice, not all deposit-taking SACCOs reporting to the CRB system do so comprehensively and consistently.<sup>65</sup> For those that are reporting, they mainly report to one CRB (Metropol), which is the result of the effort and strategy of that specific CRB.</p>	
<p><i>CONSEQUENCE</i> Not all loans from deposit-taking SACCOs are reported to all three CRBs. Therefore, these loans might be missing from an entity's credit profile. This leads to partial visibility of financial footprints.</p>	
<b>NON-DEPOSIT-TAKING SACCOS</b> <span style="float: right;">1318</span>	
<p><i>EXPECTATION</i> Non-deposit-taking SACCOs are allowed to share data with the CRBs if CBK approves them as an institution to share data with the CRB system. Not all loans from non-deposit-taking SACCOs are reported to all three CRBs. Therefore, these loans might be missing from an entity's credit profile.</p>	
<p><i>REALITY</i> In practice, not all non-deposit-taking SACCOs apply to become a third-party credit provider in the CIS mechanism. Only a fraction of those that are approved third-party credit providers report full-file data monthly. Most of the non-deposit-taking SACCOs reporting share data on an inconsistent basis and often only negative data with one of the CRBs (Metropol).</p>	
<p><i>CONSEQUENCE</i> Not all loans from non-deposit-taking SACCOs are reported to all three CRBs. Therefore, these loans might be missing from an entity's credit profile. This leads to partial visibility of financial footprints.</p>	
<b>APPROVED THIRD-PARTY CREDIT PROVIDERS</b> <span style="float: right;">513</span>	
<p><i>EXPECTATION</i> Similar to non-deposit-taking SACCOs, third-party credit providers such as development finance institutions, insurance companies, and learning institutions are allowed to share data with the CRB system if their institution is approved by CBK.</p>	
<p><i>REALITY</i> Approved third-party credit providers mainly have relationships with one CRB (Metropol), and the quality of the data sharing depends on the individual institution. Reporting is not universally comprehensive.<sup>66</sup></p>	
<p><i>CONSEQUENCE</i> Not all loans from approved third-party credit providers are reported to (all three) CRBs. Therefore, these loans might be missing from an entity's credit profile. This leads to partial visibility of financial footprints.</p>	

## 5.2.2 Overarching Challenges

The analysis by stakeholders demonstrates that several overarching challenges complicate the successful implementation of the CIS framework.

**1. Limits to which parties can share data with the CRBs.** Currently, MFIs and non-licensed DCPs are not allowed to share data with the CRB system,<sup>67</sup> and the same applies to other non-regulated entities. MFIs were previously allowed to share data, and many MFIs did so. However, there is no regulatory basis to mandate and enforce MFIs to report data currently.

Trade credit institutions can share data with the CRBs if approved as third-party credit providers. However, data aggregators collecting the information from these individual trade credit providers are not directly allowed to share data with the CRB system.<sup>68</sup> Data aggregators are not explicitly mentioned in the 2020 CRB Regulations, but they received approval as third-party credit providers before CBK withdrew approvals of third-party credit providers in 2020. Although these aggregators would need independent approval from CBK, there are questions about who (the aggregator or the suppliers of data to the aggregator) is responsible for the accuracy of the data reported to the credit reference bureaus.

One new player in the credit ecosystem, the Hustler Fund, is excluded from the CIS mechanism by design. According to their records, 21 million Kenyans have 'opted in' to the Hustler Fund since its inception, and around 51,000 groups have registered as a chama (representing more than one million people).<sup>69</sup> None of the loans disbursed are currently reported to the CRBs, adding to the partial visibility of the financial footprint of individuals and entities. Integrating these loans into the CIS mechanism, particularly since a significant proportion of the Kenyan population has a Hustler Fund profile, would expand the breadth and depth of credit profiles at the CRBs.

**2. Lack of enforcement to ensure high-quality and consistent reporting.** A lack of adherence and enforcement of the mandate to report affects the credit information shared by banks and licensed DCPs. These stakeholders are mandated to report. However, reporting is not perfectly comprehensive and consistent. Enforcement would address and resolve these issues.

**3. Regulatory inconsistencies complicate the inclusion of SACCOs.** The established regulatory framework complicates the mandatory reporting of SACCOs and enforcement thereof.

In summary, the regulatory framework for credit information sharing is currently fragmented and suboptimal.

### 5.2.3 Consequences of a Fragmented Regulatory Framework

Issues with the credit information sharing framework translate into concerns about the quality and value of the CRB score and report. During the working group process and one-on-one interviews, lenders expressed concern about the data available to the CRBs and the quality of CRB scores and credit reports. As mentioned, critical initiatives are already underway to strengthen the accuracy of reported credit data via the data validation mechanisms that the CRBs employ in order to deposit the data into the production databases.

Lenders are aware that the CRB score may not capture all of the consumer's information due to non-reporting and that it therefore misrepresents the risk estimate. As a result, certain lenders increasingly rely on internally available data or are looking for non-conventional data options.<sup>70</sup> This most notably applies to banks or digital credit providers that have the internal capacity and capabilities to analyze these data and invest in data science functions. Certain, often smaller, lenders without the capacity to set up internal teams are turning to external service providers that can provide analytical support for the credit risk assessment process.<sup>71</sup>

In addition, lenders have expressed concerns about the lack of harmonization of scores across the three CRBs. An initiative to address these concerns was created by CBK, Kenya Bankers Association,

CIS Kenya, and the World Bank Group in 2018 to analyze how scores for a similar entity might differ by CRB. The objective of this exercise was to take steps towards harmonization of CRB scores. However, the prevailing sentiment among stakeholders today is that there continues to be room for improvement and that more work is needed.<sup>72</sup> A second phase of the initiative focused on score harmonization kicked-off in late 2023.

A consequence of the data differences at the CRBs is that CRB proprietary credit score algorithms are trained on different information. As a result, the algorithms are highly likely to differ. Provided the financial footprint for the borrower is generally similar across bureaus, the risk assessment by different scoring algorithms will likely remain similar. That said, the score interpretation function may generate very different values, confusing the borrower and less experienced lenders. For example, the scoring algorithms at each CRB may all assess the borrower with a 5% propensity to default. However, each score's mapping functionality may translate the 5% to quite different 3-digit values (e.g., 600, 650, 700). This is a common situation when credit scores are determined from multiple developers. With the appropriate training dataset, a standardization layer can be overlaid that will reduce much of this confusion.

Banks are required to consider the CRB score before lending, but several banks indicate this is more of a last mandatory check after the actual underwriting decision has been made based on internal information.<sup>73</sup> Our interviews and the working group process noted similar sentiments for the CRB data's use as a final check for red-flags. Today, the CRB score and listing status are still regularly used as a binary yes or no in cases of negative listings, although CBK and the banks in the Banking Charter have agreed to move towards risk-based pricing.<sup>74</sup>

This perception of the quality of the CRB scores and the lack of harmonization between CRB scores undermines the credibility of the credit information sharing mechanism. This ultimately hurts the willingness of lenders to share data accurately and timely.

## 5.2.4 Recommendations

Given the lack of visibility of conventional credit data, the CIS framework is at a crossroads. As the information in the CRB score decreases, lenders are less able to assess risk accurately. Principal stakeholders understand that the overall credit ecosystem would benefit if sharing credit information was mandated for all lenders, and if enforcement ensured high-quality data and consistent reporting.

At the launch of the first CRB in 2010, the CBK governor stated that the main objective was to increase access to credit and that credit information sharing will erode the risk premium associated with information asymmetry and that this will allow the cost of credit to decline substantially.<sup>75</sup> While there is consensus that strong progress has been made in credit information sharing in the past decade,<sup>76</sup> it is also clear from the analysis in this report that these developments have not yet resolved the risk premium effect and subsequently lowered the cost of credit sufficiently.

To move towards full visibility and address the challenges outlined above, we offer the following recommendations:

1. Ensure adherence of banks to guidelines around comprehensive and consistent reporting
2. Enforce mandated reporting of licensed DCPs
3. Resolve regulatory inconsistency around the reporting of SACCOs
4. Develop a regulatory basis that allows to mandate MFIs to report credit information
5. Integrate Hustler Fund loans into the CIS mechanism

During FinRegLab's Closing Plenary Meeting, stakeholders of the credit ecosystem in Kenya did not universally agree on which of the recommendations presented here was of greatest priority. Stakeholders argued that to improve the visibility of enterprises, all of the issues mentioned earlier need to be addressed, as each of the challenges around non-reporting of DCPs, MFIs, and SACCOs impacts the CIS mechanism and the credit underwriting processes of lenders.

## 5.2.5 Implications of Adopting the Conventional Data Recommendations

### Demand-side, specifically women-owned MSEs

#### *Microenterprises:*

- » For microenterprises that access a mix of informal (e.g., chama) and formal (e.g. MFI, digital loan, SACCO) sources of credit, adding these loans to credit reports will strengthen the visibility of their financial footprint, and provide a more accurate risk assessment.

#### *Small enterprises:*

- » Small-sized enterprises are more likely to have a loan from the formal credit system and therefore a credit file and score.
- » Increased visibility can impact the possibility of accessing credit for MSEs in different ways.
- » In the short-term, increased visibility will result in more accurate risk assessment of enterprises as non-reported loans become part of credit reports.
- » In the medium to long-term, increased visibility of MSEs at the CRBs and for lenders will most likely, assuming healthy competition between lenders, translate into more beneficially designed products as lenders reduce the costs from non-performing loans. This should benefit MSEs, as they can access more affordable loans corresponding to their risk profile and shop around for credit with their improved credit profile.

#### *Predominantly Cash Users:*

- » For women-owned enterprises with some borrowing from lenders that do not currently report regularly or with full file information, mandatory full reporting can help to create a CRB file presence and therefore the possibility of a credit score that enables credit access.
- » For cash-only MSEs, the mandatory reporting does not offer meaningful benefits.

### Supply-side—Lenders

- » Minimizing loan non-reporting would allow the CRBs to access more information and improve credit score accuracy.
- » Consequently, richer MSE credit profiles at the CRBs would increase the visibility of the financial footprint of enterprises for lenders.
- » Moving from partial visibility to full(er) visibility allows lenders to better understand the risk of default associated with providing credit to an enterprise, thereby reducing their losses, and allowing lenders to price their credit products better.
- » More informed lending would improve the safety and soundness of the overall ecosystem.
- » Increased visibility benefits all lenders; smaller entities may especially benefit, as the competitive edge that larger lenders have from their internal, proprietary data (for

example, banks with customer accounts) will be reduced. Additionally, it can open up product innovation.

### 5.3 Summary

This chapter discussed challenges and recommendations for the access and use of conventional data in MSE credit risk assessment. Our working group process and analysis focused on the issues and future issues due to reporting inconsistencies with the conventional data sharing mechanism. We propose recommendations that focus on minimizing the number of non-reported loans to the credit reference bureaus, thereby improving the visibility of MSEs' financial footprints.

## 6. THE ROLE OF NON-CONVENTIONAL DATA

Non-conventional data are defined as any data source that is not reported or currently accessible through a CRB database. In light of the issues with conventional data and the partial visibility of the financial footprint of enterprises as described in previous sections, lenders' access to non-conventional data sources has become increasingly important. Non-conventional data sources can supplement and complement conventional data sources and thereby improve the credit risk assessment process by providing a 360-degree view of the financial footprint of enterprises based on affordability and propensity.

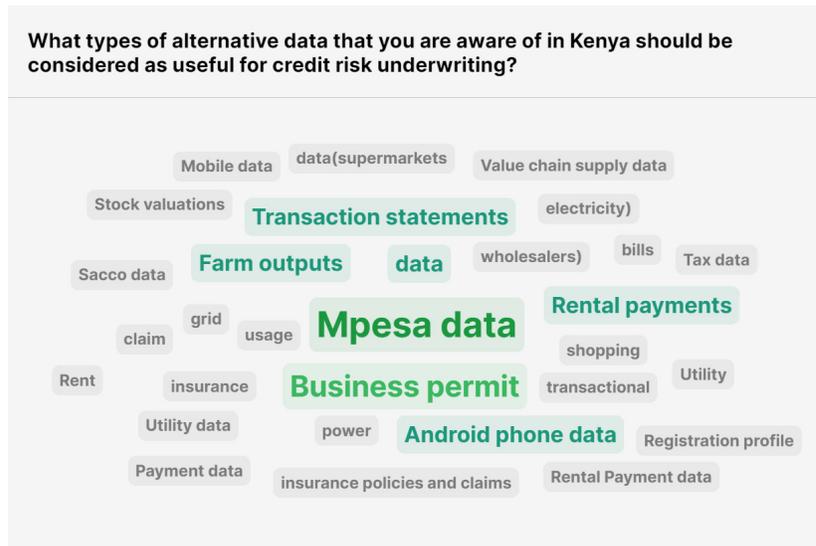
Access and use of non-conventional data is highly fragmented, with some lenders having a competitive advantage as a result of bilateral agreements with cash-flow data providers,<sup>77</sup> others focusing on data interpretation innovations, while still others have no access at all. Given there is no universal access or sharing mechanism to non-conventional data as there is with conventional data through the CRBs, the use of non-conventional data sources are largely ad hoc and institution-dependent.

### 6.1 High-value Non-Conventional Data Sources

A principal focus of this study has been to understand the Kenyan-based non-conventional data sources that could improve the credit risk assessment process for MSEs.

Our working group sessions identified multiple sources of non-conventional data relevant to the Kenyan context, captured in [Figure 4](#). Overwhelmingly, stakeholders identified transaction data, specifically M-PESA transaction data (digital wallet transactions), as a rich and predictive data source. Lenders such as Tala have developed deep expertise in parsing and interpreting mobile and digital data as a component of information within their credit risk assessment process. Transaction data offers deep and broad insights into consumption, cash-flow, type of consumer transactions as well as mobile network/usage profiles. Other relevant non-conventional data sources include general transaction statements, business permit (registration) data, supply chain data, rental payments, mobile phone data, farm outputs, utility payments, insurance policies and claims, and tax data.

**FIGURE 4 HIGH VALUE NON-CONVENTIONAL DATA SOURCES**



Source: Input from stakeholders during FinRegLab working group sessions

Four non-conventional data sources were selected for deeper consideration. For each non-conventional data source, the main challenge was identified and presented in the table below.

**TABLE 2 NON-CONVENTIONAL DATA SOURCES AND ACCESS CHALLENGES**

NON-CONVENTIONAL DATA SOURCE	CHALLENGE
TRANSACTION (MOBILE WALLET) DATA	Transaction data are not universally accessible due to data being siloed under private ownership
CASH-FLOW (BANK ACCOUNT) DATA	Bank accounts are not universally used, given mobile wallet disintermediation
SUPPLY CHAIN DATA	Data are not digitized, and, if digitized, are stored in silos
CONTEXT DATA (E.G. COUNTY RECORDS, BUSINESS SECTOR INFORMATION)	Decentralization of data sources

Source: Input from stakeholders during FinRegLab working group sessions

Stakeholders prioritized supply chain data and M-PESA data as the data sources that can bring, if available and accessible, the most value to the credit underwriting and data ecosystems.<sup>78</sup> The following sections explore how supply chain data and mobile money cash transactions are currently used for credit underwriting in Kenya as well as current developments, challenges, and potential building blocks for expanding data accessibility and use.

## 6.2 Supply Chain Data

Supply chain, or value chain, data refers to data that are captured as goods and services flow between a firm and other actors in its supply chain. Enterprises place purchase orders, buy stock and inventory, and sell products to their customers. Insights into these transactions are valuable, as they provide information on, for example, how an enterprise operates, how many suppliers/buyers

it has, and the number of products it sells. These insights are especially relevant since, although this information is typically not considered conventional credit data, it can provide additional information on the cash-flow health of an enterprise and the strength of its relationships with suppliers and buyers. Players inside or outside of the supply chain can potentially use this information to assess both enterprises' payments of obligations and revenue flows for purposes of providing financing to participating businesses.

The following section will explore how players currently use MSEs' supply chain relationships to provide them with financing in certain closed-loop systems largely for formal businesses, as well as discussing potential steps to both deepen supply chain digitization to include smaller and informal MSEs and to promote broader access to and use of the data from such networks by outside lenders.

### 6.2.1 Current Use of Supply Chain Data for Credit Underwriting in Kenya

The use of supply chain data to determine eligibility, provide credit and other financial services has grown considerably in Kenya in recent years with the advance of fintech companies and the digitization of enterprises, transactions, and value chains.

The use of trade credit is very common in the supply chains of MSEs, as recent research shows.<sup>79</sup> Trade credit providers can share data with the CRBs if they are approved as third-party credit providers. Whether trade credit data are shared with the CRBs depends on CRBs' efforts to secure consistent and comprehensive reporting.

Many large commercial banks in Kenya offer multiple supply chain finance products, with distributor finance and loans against inventory as the most relevant products for MSEs.<sup>80</sup> Commercial banks have their own supply chain finance products offerings and platforms in collaboration with technology firms or other partners. Jaza Duka,<sup>81</sup> for example, is an initiative between Mastercard, Unilever, and KCB that was started in 2017 and helps small and micro retailers get digital credit accounts to purchase products. This initiative combines data distribution from Unilever and analysis by Mastercard to provide credit eligibility recommendations to KCB, which then uses the information to assess a retailer's creditworthiness and extend formal credit for stock purchases.<sup>82</sup> The provided credit is based on merchants' history of purchases from Unilever, with early analysis in 2019 suggesting that a store with weekly purchases of USD 50 from Unilever can qualify for a credit line of USD 120.<sup>83</sup> Similar initiatives could be launched by other banks in collaboration with other anchor firms or large corporations, with other fast-moving consumer goods (FMCG) corporations being the most suitable potential collaborators.

A more recent initiative is Solv, which launched in Kenya in 2022 and is backed by Standard Chartered Bank. Solv brings anchor firms and their retail ecosystem (including their MSME<sup>84</sup> suppliers or buyers) to a digital platform. The existing supply chain relationship with a large corporate or anchor firm enhances the creditworthiness of MSMEs and provides access to multiple financial institutions on the platform.<sup>85</sup> Multiple working group participants indicated that a 'Solv-like' solution can overcome some of the challenges of accessing supply chain data.

The use of supply chain finance and data in Kenya is increasing. Thus far, only formalized enterprises with the required documentation are eligible to become part of the supply chain finance program with large and established corporations. In addition, a certain level of digitization is also a prerequisite for MSEs to participate in such a facility.

## 6.2.2 Examples from Other Countries

This section highlights some supply chain finance and data best practices from around the world. Identifying these best practices allows us to understand the relative capability and sophistication of the Kenyan solutions.

### Patasente

Patasente is a Ugandan fintech that operates an online supply chain or digital trading platform.<sup>86</sup> The firm offers order now pay later services and allows enterprises to pay suppliers as they wait for a payment from their customers. Patasente operates an online merchant platform for invoice factoring by connecting microenterprises with lenders in Uganda.

Patasente focuses on microenterprises, as they often cannot secure loans against their invoices. However, these microenterprises often have cash-flow problems due to waiting anywhere between 30 to 90 days to receive payments for their products/services. Patasente brings buyers and suppliers online by digitizing orders, payments, and invoices to improve visibility and demonstrate the creditworthiness of MSEs.<sup>87</sup> Patasente publishes loan requests and credit scores based on a buyer's credit history on their platform, and private lenders can review and decide to finance these loans.

CGAP, in collaboration with Patasente, tested their online supply chain finance platform with a newly designed USSD interface that can work on feature phones to serve rural dairy farmers, whose operations are often non-digitized and without access to smartphones or computers.<sup>88</sup> Within the dairy farm supply chain, Patasente built strong relationships with both buyers and suppliers. It used past invoices and business data within the chain to generate credit scores for suppliers, who would become potential borrowers when they were ready with their invoices. The system used a USSD menu, mobile payments, and SMS records of transactions. The platform provided nearly 200 loans, based on 3,685 transactions generated by more than 700 users, to just over 50 different borrowers for more than USD 500,000 in loans.<sup>89</sup> The results of this (early stage and small) pilot showed that Patasente has the potential to close an important cash-flow gap in microbusinesses and bring greater information and efficiencies to the system.

The success of platforms like Patasente's depends on growing sustainable relationships and connections across a multi-party network of stakeholders.<sup>90</sup> The quality of Patasente's, or similar, services depends on the strength of the information on supply chains to build strong credit scores for each supplier. Scaling and rolling out this model across supply chains is resource-intensive, as Patasente is responsible for running a complex platform with many stakeholders involved.

### Tienda Pago

Tienda Pago, operating in Mexico and Peru, provides merchants and distributors with a simple, integrated solution to relieve merchant liquidity constraints and bring efficiencies to the distribution chain. The core product proposition is a credit line that allows small merchants to purchase inventory on credit at the time of delivery.<sup>91</sup>

Tienda Pago offers an uncollateralized working capital loan, and leverages a merchant's relationship with an FMCG distributor and inventory purchases to assess the creditworthiness of a merchant. Tienda Pago's business model relies on signing partnerships with large FMCG distributors through which merchants (the buyers of the FMCG distributors' products) can be identified and onboarded. The FMCG distributors provide electronic records of purchases the merchants in their network make and basic information on the merchants. Tienda Pago combines these data with data from external sources, such as credit bureaus, to build a merchant credit profile.

To scale Tienda Pago sustainably requires strong partnerships with FMCG distributors. The value proposition to distributors needs to be appealing, as ultimately, the uptake of loan products depends on the distributor staff encouraging merchants to use Tienda Pago's offering. Distributors and merchants must be trained and incentivized to participate.<sup>92</sup> A further challenge for scaling Tienda Pago is to integrate its product into the core processes of FMCG distributors.

### 6.2.3 Use of Supply Chain Data and the Level of Digitization of MSEs

A foundational challenge for using supply chain data is the lack of digitization of information within the MSE. A lack of digitization is a broad concept but can roughly be divided into a few subcategories:

- » **Relevant business and supply chain data and information are not digitized.** Enterprises often operate informally and mainly transact in cash, which makes it difficult to track expenses, purchases, revenues, and cash-flows. No business records or handwritten ones are hard to structure and independently verify.
- » **Data are (partially) digitized but not in a structured format.** Portions of business transactions and information may be digitized for enterprises, but data may not be in a structured format across different sources. For example, an enterprise could capture their sales in a spreadsheet, receive digital invoices from their suppliers (each in a different format), and receive part of their sales through mobile money. It is complicated for lenders to receive data in these unstructured and non-standard formats, as this affects the ability to analyze the data at scale.
- » **Data are digitized but not availability to all lenders.** Data are digitized but not universally accessible to lenders outside the supply chain. For example, an enterprise may receive payments from customers through their business mobile money account, but digital wallet transaction data are not widely accessible to outside lenders as it requires manual intervention from the enterprise and involves providing consent. Another example is an enterprise ordering supplies through the digital platform of its supplier and being unable to share this record of payments outside of this bilateral environment. Similarly, an enterprise might have supply chain relationships with multiple suppliers, each using a different platform and locking in their data at each platform.

Our working group participants repeatedly indicated that the lack of data digitization challenges lenders ability to assess MSE creditworthiness. The participants acknowledged that while large volumes of useful data do exist, especially regarding existing relationships between MSEs and their suppliers and buyers, there is currently no usable data integration capability.

### 6.2.4 Building Blocks for the Use of Supply Chain Data in Credit Underwriting

Two crucial building blocks for the use of supply chain data emerge from the earlier examples of supply chain data in Kenya and other countries: digitization and multi-stakeholder relationships.

1. **Payments and invoices need to be digitized.** All showcased initiatives strongly focus on digitizing invoices and payments in the supply chain or only efficiently operating when electronic records are available. The digitization of invoices and payments strongly depends on the type and level of formalization of MSEs and differs by sector.

*Payments:* Policymakers and regulators could consider offering financial and non-financial incentives to credit providers, MSEs, and consumers to promote the use of digital platforms. Kenya has witnessed strong growth in digital payments in the past decades, particularly through the M-PESA network, and these developments are documented in recent CBK publications.<sup>93</sup> Given that parts of the (informal) economy at least partly still transact in cash, policymakers could consider offering incentives to increase the usage of digital payments further.

Other countries like South Korea, Colombia, and India have offered incentives to encourage digital payments. South Korea offered tax reductions under the Tax Incentives for Electronically Traceable Payments (TIETP) if individuals spent more than 25 percent of their annual income through credit or debit cards. This tax incentive scheme has greatly contributed to transforming the Korean economy into a cashless economy.<sup>94</sup> Similarly, Colombia provided a tax benefit to small merchants earning less than USD 38,000 annually for all revenue captured by point-of-sale terminals. It led the way in digitizing government payments.<sup>95</sup> Lastly, India subsidized the costs merchants pay banks for transactions up to a certain threshold.<sup>96</sup>

These examples show that governments have a leading role in encouraging digitizing payments. In the National Payments Strategy 2022-2025, CBK has indicated that it aims to play a role as a catalyst for the digitization of payments to and from the government, acknowledging that the government is the largest payer and receiver of payments in the economy.<sup>97</sup>

The Kenyan government can introduce financial or non-financial incentives to further stimulate the use of digital payments by MSEs, and continue leading the way in digitizing the economy and government services.

*Invoices:* An assessment by IFC found that more than 80 percent of interviewed MSMEs in Kenya already send electronic or digital invoices to at least some clients, and 92 percent use digital payments for at least some transactions. These practices create business records that can be leveraged to access supply chain finance.<sup>98</sup> E-invoicing is a key enabler of supply chain finance. Electronic invoices remove procedural delays from processing invoices manually, create structured data, and can be captured in multiple formats. Electronic invoices from supply chain relationships can increase the visibility of a business by providing information on the trade relationships of a business with more clarity and timeliness than accounting statements. This level of transparency can improve a business's credit risk assessment and underwriting process.

It should be noted, however, that digital invoicing is currently skewed towards formalized and larger MSEs, which are less likely to be women-owned MSEs. In addition, a recent government initiative is raising concerns about whether MSEs will be able to maintain connections to larger supply chains. The Kenya Revenue Authority (KRA) has launched an e-invoicing platform for tax compliance. This also requires the development of digital invoices and purchase orders that can facilitate supply chain finance because enterprises engaging in manual transactions will be non-compliant.<sup>99</sup> This electronic tax invoice management system aims to ensure all VAT-registered taxpayers generate electronic tax invoices that are transmitted to KRA on a near real-time basis. KRA has also announced that companies that do not provide these electronic tax invoices for payments made to their suppliers cannot claim input tax refunds for Kenya's VAT.

It is believed that the proposal may be prohibitive to millions of small businesses that operate informally.<sup>100</sup> Due to the new system, VAT-registered large companies may choose not to do business with MSEs in their supply or value chain, as MSEs will struggle to comply

and generate valid tax invoices and instead choose to do business with other, larger compliant firms.<sup>101</sup> This would mean that instead of contributing to digitizing and strengthening the supply chains that MSEs are active in, this policy might inhibit their integration into strong supply chain relationships. The Kenyan Government, KRA specifically, could incentivize MSEs to formalize and integrate into the e-TIMS system to facilitate VAT payment. This would drive the usage of e-invoicing, which would be a building block for increased uptake of supply chain finance.

**2. Multi-stakeholder Relationships Need to be Established.** Multi-stakeholder relationships are necessary for currently available supply chain finance solutions and credit provided based on supply chain data. For example, Patasente's ecosystem consists of distributors, MSMEs, private lenders, and Patasente itself. In other cases, such as lender-led platforms like Solv, the ecosystem consists of anchor firms, suppliers/buyers, and the lender (bank or fintech). To manage such ecosystems is resource-intensive, and sustainably scaling them requires time, incentives, and capacity from all actors, and trust.

Additionally, all of the mentioned solutions are limited in scale, focused on a specific supply chain, involve one or a few corporates/anchors, and do not often involve large groups of MSEs. In essence, these solutions are independent initiatives that could be scaled across most sectors of the economy; however, this has been difficult to achieve. Ongoing digitization of payments, invoices, and data should support the scalability of supply chain solutions. However, this does not directly solve the issue that these supply chain finance initiatives are established as closed-loop systems, thereby generating so-called data silos.

In addition, while these chains can grow larger and deeper over time, there is a separate challenge in that existing supply chain finance initiatives are being established as closed-loop systems, thereby generating so-called data silos. To encourage the use of supply chain data for credit underwriting of MSEs by lenders that are not already embedded in the chains, further digitization of the Kenyan economy, specifically invoicing, is needed. To counter the concern that data will be locked-in in newly created data silos, solutions around data standardization, interoperability, data aggregation, and data sharing need to be explored. Related topics are discussed in [Chapter 7](#).

### 6.3 Digital Wallet Transaction (such as M-PESA) Data

There is widespread consensus among lenders and stakeholders in the Kenyan credit ecosystem that Safaricom's M-PESA services offer the largest and most valuable non-conventional data source. M-PESA has by far the largest market share in the Kenyan mobile money market (96.5 percent),<sup>102</sup> is used by the majority of households (32.1 million users in 2023), and the number of M-PESA transactions continues to grow (from 15.75 billion in 2022 to 21.03 billion in 2023).<sup>103</sup>

M-PESA transaction statements offer a rich and highly detailed source of data for less formal businesses, which may rely upon it heavily both in conducting transactions with their customers and in making payments to suppliers and lenders. Indeed, in light of the partial visibility of enterprises credit management data at the CRBs, it is particularly relevant that M-PESA statements for many individuals may provide more insight into their borrowing behavior than their credit files because loan disbursements and repayments are often channeled through a borrower's M-PESA wallet.

Access and use of M-PESA digital wallet transaction data is fragmented given no universal access and sharing mechanism to the data. We explore the current mechanisms to access M-PESA digital wallet transaction data for credit underwriting and their associated challenges below.

**1. Bilateral Agreements with Safaricom.** NCBA and KCB have established bilateral agreements with Safaricom to offer users credit products via the M-PESA platform. Consumers' consent is required to access and use M-PESA digital wallet transaction data to underwrite NCBA's M-Shwari and KCB's KCB M-PESA financial products. Other banks have collaborated with Safaricom on an ad hoc basis, but none have set up partnerships as successful as those with NCBA and KCB. Lenders, other than NCBA and KCB, indicate that forming a new partnership with Safaricom is often priced such that the pass through economics to borrowers quickly becomes prohibitive. Additionally, Safaricom's preferred strategy is to focus on developing and offering analytical and credit decision-making services to the lending ecosystem.

For those without a bilateral agreement, technical workarounds offer a solution such as text message interpretation or scraping.

**2. Technical Innovations.** Digital lenders and lenders offering mobile products analyze the SMS logs of prospective customers for M-PESA transaction data to better understand the consumption and potentially the borrowing patterns of applicants. This workaround method requires a consumer's consent to analyze their phone and SMS logs. It is powerful because topline info on key indicators such as balance, income, and expenses as of the time of individual transaction execution can be established based on the available information. Many digital lenders, as well as some Tier 1 banks in Kenya, use these technical innovations to an extent. It should be noted that although highly detailed transaction information is captured in M-PESA statements, having access to less detailed topline cash information is known to deliver a high percentage of transaction statements' predictive value.<sup>104</sup> Solutions such as text message interpretation can therefore likely offer a very reasonable analytic proxy. The approach has implications for several consumer protection issues, such as data privacy, consent, transparency, and proportionality. It is also potentially concerning from a data completeness perspective as messages could be deleted.

Recently, third-party analytical services have emerged.

**3. Third-party Service Providers.** Several third-party service providers, such as Patascore (by Pezesh) and Spin Mobile, offer services to lenders in which they analyze mobile money (and bank) statements for credit underwriting purposes. In this process, the user downloads mobile money statements and submits them to the lender or third-party service providers for the express purpose of being analyzed as part of a loan application. This is a particularly relevant solution for lenders without the internal analytical capacity and capabilities to build strong credit scores using non-conventional data sources. This solution solves the problem of consumer consent, as users are actively involved in submitting their digital wallet transaction data to the lender or third-party service provider. Consumer privacy risks are still involved, and adherence to the Data Protection Act is required. Clearly, this approach has limited scalability, consumer friction from manual transaction data submission and the potential for data interpretation errors.

### BOX 8 THE POSITION OF SAFARICOM AND M-PESA

Safaricom, and specifically M-PESA's dominant position in the Kenyan market, has been discussed and scrutinized extensively by competitors, lawmakers, and regulators. Safaricom is regulated chiefly by the Communications Authority, yet it also engages with other regulatory bodies. The Central Bank of Kenya regulates Safaricom's M-PESA mobile payments services, and the Competition Authority of Kenya (CAK) has engaged with Safaricom on consumer-related and competition issues. For example, CAK investigated and established in 2014 that restrictive clauses in agreements with M-PESA agents unfairly prohibited the agents from transacting mobile money for other players in the market, and Safaricom removed these clauses in response.<sup>105</sup> In 2018, CAK indicated it had not found any evidence of Safaricom abusing its dominance in any of its business sectors, meaning there was no need for action by regulators.<sup>106</sup> Yet in

2021, CAK encouraged Parliament to pursue laws that would compel carriers such as Safaricom to share their infrastructure commercially.<sup>107</sup>

Regarding the position of M-PESA, CBK stated in its National Payments Strategy 2022-2025 that dominance in the mobile payment ecosystem limits choice for customers and that "encouraging competition will be a key enabler for effective and viable payment options."<sup>108</sup> In addition, there have been discussions about a potential split between M-PESA and Safaricom in recent years, which CBK ostensibly supports.<sup>109</sup> A split would allow CBK to regulate M-PESA as a bank, and it would allow M-PESA to expand its financial product offering. A split would also mean that M-PESA could offer credit products without bilateral bank relationships.

## 6.4 Recommendations

Our stakeholders have indicated prioritizing digital wallet transactions (via M-PESA detail or SMS interpretation of summary financial data) and supply chain data as the main sources of non-conventional data that can meaningfully enhance the data ecosystem and add to gaining a 360-degree view of the financial footprint of enterprises in Kenya. These data sources are already incorporated into the credit risk assessment processes of some products and lenders in Kenya and are believed to offer strong potential to expand credit access for MSEs. At the moment, however, there is no broad-based and publicly accessible understanding of the predictive value of these and other non-conventional data sources in Kenya. Furthermore, no universal access mechanisms exist for these data sources. We recommend an analysis that empirically studies multiple data sources' value and integration needs to present an objective assessment of which sources can add the greatest value to the overall ecosystem of credit underwriting for MSEs. Such an analysis should consider how much risk insight data sources offer and whether and how these data sources can be readily scaled and cost-effectively integrated while satisfying Kenyan regulatory criteria.

## 6.5 Implications of Incorporating Non-Conventional Data in Credit Underwriting Processes

### Demand-side: Women-owned MSEs

In general, using non-conventional data will result in a business owner being more accurately risk-assessed.

#### *Microenterprises:*

- » Non-conventional data can provide insights into the affordability via cash-flow data and their capacity to repay a loan through supply chain data. Giving lenders access to non-conventional data would enable more accurate risk assessment that could benefit the MSE given more accurate risk assessment.

### *Small enterprises:*

- » Small enterprises, which often have larger digital trails or footprints than microenterprises, may benefit economically from the increased usage of non-conventional data in risk assessment that leads to more accurate risk assessment.

### *Cash-only:*

- » Given the growing engagement with mobile wallets, accessing this data source can provide an early on-ramp that gives some insight regarding the enterprises' cash-flow management capabilities. This affordability lens can effectively help introduce the enterprise to lower risk, small liquidity-oriented lending products that could establish a credit file at the CRBs and enable the MSE to become visible within the conventional data ecosystem.

### Supply-side: MSE Lenders

- » Accessing non-conventional data sources such as transactions (through mobile wallets) or supply chain data will add to gaining a 360-degree view of the financial footprint of an enterprise.
- » Lenders accessing non-conventional data would enrich their credit risk assessment process, by providing insight into affordability. By ingesting this information, lenders could develop a combined credit and cash-flow score to deliver superior predictive insight.
- » Improved predictive insight into borrowers' default risk would improve lenders' credit assessment process and reduce the default rates. This, in turn, should allow lenders to price their credit products more competitively, and it would also increase the health of the overall ecosystem.
- » Increasing the availability of access mechanisms to non-conventional data will lessen the competitive advantage of parties with bilateral partnerships with Safaricom and access to M-PESA data, thereby increasing overall competition that will ultimately benefit the borrower.

Lenders that have a strong digital presence and capabilities are set to benefit from greater access to non-conventional data than those operating more traditionally.

## 6.6 Summary

This chapter discussed challenges and recommendations for the access and use of non-conventional data in MSE credit risk assessment. We explore how non-conventional data sources are currently being used, specifically focusing on how supply chain data and digital wallet transaction data can be accessed for underwriting purposes. While the challenges of sustainably integrating these data sources within credit risk assessment are significant, the credit access benefits to MSEs from these data are substantial in that they can provide an on-ramp to credit access for MSE that are currently invisible and a capacity to undermine the current pricing inflation that occurs given only partial visibility within the conventional data ecosystem. Integrating non-conventional data sources has implications for Kenyan data privacy and protection regulations. The next chapter discusses implications relevant to the Data Protection Act and third-party data consent and offers some perspectives for consideration.

## 7. DATA PRIVACY AND PROTECTION

The increasing use of non-conventional data in credit underwriting introduces associated challenges. For example, privacy is a contentious issue in Kenya's consumer and MSE lending. The rise of mobile money accounts and digital lending products has already increased the amount of consumer information that lenders can access. However, as discussed in [Chapter 6](#), further clarity regarding customer consent, portability, and other topics are critical to ensure consistent protections and access as more lenders work to incorporate non-conventional data into their underwriting processes. Technology architecture such as application program interfaces is also an important building block for "open data" systems that can improve access to credit and other financial services at scale by facilitating efficient, secure means of customer-permissioned data access.

Discussions about additional open data initiatives are underway in Kenya, but stakeholders also emphasize the need for greater clarity as to existing regulation. In this chapter, we discuss the Data Protection Act (DPA), which created a comprehensive legal framework for data protection in Kenya. The DPA has major implications for how lenders operate, and some lenders have reported confusion or difficulty in complying with the new rules. This chapter discusses these challenges, based on a mapping and prioritization exercise with working group participants. It includes recommendations that industry and market actors consider important to improve compliance and enhance the credit underwriting data ecosystem meaningfully.

Overwhelmingly, working group participants observed:

- » the need for more clarity and further guidance related to the implementation of the **Data Protection Act, 2019 (DPA)**,
- » in particular, as it relates to **third-party consent**.

Considerations for the Data Protection Act that cut across the discussion provided in [Section 7.1](#) and [Section 7.2](#) are below.

- » **Consideration:** When designing new products or services, it would be beneficial for organizations to have guidance on implementing Privacy-by-Design measures. This would ensure that privacy is embedded throughout the development and implementation of products and services that involve handling personal information.
- » **Consideration:** Guidance from the Office of the Data Protection Commissioner (ODPC) on key points in the user experience in which organizations should convey privacy information could help data subjects understand complex information flows.

## 7.1 General Issues Under the Data Protection Act, 2019

The Data Protection Act (DPA) came into effect on November 8, 2019, following a seven-year effort to develop the law. Modeled from the European Union's General Data Protection Regulation (EU GDPR), it is designed to protect the processing of personal data belonging to Kenyan citizens and residents ("data subjects"). Given the commingling of personal and business finances among MSE owners (particularly smaller, less formal businesses) and reliance on personal data for underwriting digital loans in particular, lenders view it as having a major impact on their operations. Even where not directly applicable, the law may shape general business practices as it is implemented.

The Act protects personal data by requiring organizations to obtain consent<sup>110</sup> from data subjects or to act pursuant to one of its other specified provisions before collecting, using, or disclosing their personal information. The Act's purposes also include the creation of the Office of the Data Protection Commissioner (ODPC) to regulate the processing of personal data and ensure compliance with data protection regulations in Kenya.<sup>111</sup>

The ODPC is also responsible for establishing the legal and institutional mechanism to protect personal data, ensuring that the processing of data is guided by the principles and regulations of personal data protection set out in Section 25 of the Act, and providing data subjects with rights and remedies to protect their data from processing that is not in accordance with the Act. The Act grants data subjects various rights, including the right to be informed and opt-out of data tracking; to access, correct, and delete personal information; to data portability; and not to be subject to automated decision-making.

Since the enactment of the Act in November 2019, the Government fully operationalized the ODPC as an independent state office under the Ministry of Information, Communications and the Digital Economy and developed and published four sets of Data Protection Regulations.<sup>112</sup>

It is important to note that the regulatory framework is still evolving, and our review reflects changes as of mid-2023. Since its creation, the ODPC has issued various guidance notes and was involved in several court cases,<sup>113</sup> and there are still areas where regulation is expected to clarify gaps in the DPA.

Examining the implementation of data protection laws in other jurisdictions reveals some elements that are critical to ensure successful implementation of the Act. The first element is giving regulatory independence to the ODPC by ensuring it maintains autonomy and is free of conflicts of interest when enforcing laws protecting privacy. The second element is ensuring the ODPC has sufficient financial resources and personnel to fulfill its mandate. The third element is fostering collaboration between the ODPC and other authorities, particularly as they consider consumer protection and digital developments.

Our working group sessions highlighted that, in practice, the ODPC has allowed the industry to develop sector-specific guidelines and codes of conduct for data controllers, data processors, and data protection officers. Given the similarities between the DPA and the GDPR, such sector-specific guidelines currently in development heavily borrow from industry standards and best practices adopted by EU member states.

The DPA has **six aspects** that could potentially benefit from further clarification. They are especially relevant to lenders' use of non-conventional data sources and digital credit. Third-party consent is excluded as it is discussed separately in [Section 7.2](#).

- » The process for gaining consent.
- » Ongoing questions about handling of data subject requests.
- » Timelines for enforcement and data impact assessments.
- » Whether a fine will be applied per data subject or incident of breach.
- » Compliance with the DPA and implications for unstructured data.
- » The processing of data used to create an automated decision.

Beyond the DPA, FinRegLab has considered how other jurisdictions, such as the European General Data Protection Regulation (GDPR),<sup>114</sup> the UK Information Commissioner's Office (ICO),<sup>115</sup> and Singapore's Personal Data Protection Commissioner (PDPC)<sup>116</sup> have addressed similar issues. Our intention in presenting implementations in these alternative jurisdictions is to facilitate ideation for resolving Kenyan concerns.

## 7.1.1 Understanding the Challenges

Working group participants indicated that the complexity of the DPA stems from the vagueness of the requirements, leaving much room for interpretation. The DPA takes the view that compliance depends on the nature of the personal data and the volume of information processed. This leaves the ODPC leeway in issuing penalties for data breaches and non-compliance, but it creates additional burdens for small organizations in ensuring DPA compliance.

### 7.1.1.1 The Process for Gaining Consent

The ODPC's 2020 Guidance Note on Consent addressed important issues that were ambiguous in the DPA. For example, it clarified that consent must be separate from other terms and conditions and should only include data necessary for a specific processing purpose. Any request for consent needs to be prominent, concise, in plain language, representative of a genuine choice, and offered such that declining the consent would be without detriment. However, additional guidance could be useful.

Working group participants noted difficulties striking the right balance between providing too much or too little information to data subjects. Organizations are trying to avoid legal disclosures and potentially confusing technical vocabulary. However, they noted the need for further guidance or tools to make creating simple notices easier and ensure they provide sufficient information.

In this regard, the volume of information provided and the form of that information can have a meaningful effect on individuals' ability to make informed consent. Some individuals may find extensive privacy policies cumbersome and be unnecessarily deterred from obtaining the product or service. For instance, while educated populations may welcome having access to extensive information that adds granularity to their decision-making other populations, in particular those who are illiterate or semi-literate and those with certain disabilities, may benefit from shorter disclosures or innovative consent processes that are verbal, visual, or interactive.

The Data Protection General Regulations, 2021, allows consent disclosures to be presented in writing or as an oral statement or audio or video message. Indeed, interactive tools can aid in presenting important information to data subjects, such as interactive walkthroughs, videos, infographics, and auditory tools.<sup>117</sup> However, working group participants expressed ongoing concerns about how to accomplish such disclosures in a way that is effective, efficient, and compliant.

Thus, this indicates the need for different approaches to engaging and gaining meaningful consent from data subjects. Accordingly, the ODPC could provide templates for concise, simplified versions of common disclosures, such as privacy policies. Illustrative examples of instances in which 'just-in-time' notices are appropriate could also help. For example, in cases where there is urgency in explaining to the data subject why the information is needed. Similarly, the volume of loans distributed via mobile phones merits particular guidance from ODPC. In designing consent processes, firms must consider that attention spans may differ for mobile phones, and may be less compatible with lengthy explanations. The ODPC could provide specific guidance about obtaining consent within mobile apps.<sup>118</sup> More generally, sector-specific examples of key decision points in which individuals need information or opportunities to consent would be welcome.

*Considerations on renewal of consent:* Under the DPA, organizations must request consent for continued processing of historical data. The DPA does not have grandfathering rules regarding the accumulation of data before enacting the law; thus, it seems clear that organizations that have not obtained consent or established other appropriate legal basis for processing personal data are not complying with DPA. The ODPC's Guidance Note on Consent states that it "may be sufficient to ask for a data subject's consent once," but it is necessary to obtain a "new and specific consent if purposes for data processing change... or if an additional purpose is envisaged." Working group participants raised concerns about the renewal of consent and the potential for an over-reliance on consent mechanisms, which may result in a data subject (client) feeling burdened by having to repeatedly manage their data sharing preferences.

*Considerations on how consent relates to other types of lawful basis under the DPA:* Under Section 30 of the DPA, personal data shall be processed only if the data subject consents to the processing for specified purposes or is necessary for one of eight listed reasons. The ODPC Guidance Note on Consent establishes that organizations must consistently apply one lawful basis over another, even though the "lawful basis of consent is likely to overlap with other lawful bases." Working group participants expressed some difficulty with managing overlapping lawful bases for processing. The ODPC may wish to provide additional guidance or an interactive tool to help organizations consistently apply lawful basis decisions.<sup>119</sup>

*Considerations on publicly available data:* In general, organizations must collect personal data directly from the data subject; however, the law allows indirect collection in specified circumstances, including where the data are contained in a public record or the data subject has deliberately made the data public. The Data Protection General Regulations, 2021, clarify that indirect collection may occur from publications or databases, information associated with web browsing, persons other than the data subject, and other sources; and that when an organization collects personal data indirectly, it shall "inform the data subject within 14 days of the collection." Yet, working group participants expressed the need to clarify the extent of the required notice to the data subject; in particular, whether it must identify the specific source of indirect data and/or the mechanisms used to capture it.

## GDPR

Consent is one of six lawful bases for processing personal data. Organizations must implement an unambiguous consent system that requires a clear opt-in. The use of pre-selected opt-in boxes has been banned, and consent options for processing personal data in different ways need to be included. GDPR requires consent to be separate from any other terms and conditions. In addition, consent should not be a stipulation for signing up for a service, and records need to be kept demonstrating that consent was obtained. Furthermore, data subjects must be advised of their right to withdraw that consent and provided with an easy way to do so.

According to EU Data Protection Board guidelines, there is “no specific time limit in the GDPR for how long consent will last” and it “will depend on the context, scope of the original consent and the expectations of the data subject.” However, if “processing operations change or evolve considerably then the original consent is no longer valid” and new consent is required. Extensive record-keeping requirements apply.

Though organizations may choose which lawful basis to rely on when processing personal data under the GDPR, they must do so consistently: When relying on consent as a lawful basis for processing personal data, for example, organizations must honor individual requests to cease processing the data even in cases where other lawful bases might have applied.

When organizations obtain personal data indirectly (“where personal data have not been obtained from the data subject”), Article 14 of the GDPR requires organizations to notify the data subject, within one month of obtaining the personal data, with specific details about the identity of the data controller, the purposes for processing the data, the categories of personal data concerned, the data subject’s rights, and so on.<sup>120</sup>

## Other jurisdictions

In the UK, consent is one of six lawful bases for using personal information. The Information Commissioner’s Office (ICO) provides extensive practical guidance for organizations about consent.<sup>121</sup> It also maintains a website with guides, checklists, and interactive tools specifically tailored for small businesses.<sup>122</sup>

When obtaining consent, organizations should “clearly explain to people what they are consenting to in a way they can easily understand. The request for consent needs to be prominent, concise, separate from other terms and conditions, and in plain language.” The ICO is clear that “there is no such thing as ‘evolving’ consent.” and that organizations must offer consumers

“ongoing choice and control.” Thus, the ICO recommends maintaining preference management tools, such as privacy dashboards, to allow people to access and update their consent settings. Organizations should keep consents “under review” and must refresh consents whenever circumstances change such that “the original consent may not be specific or informed enough.” The ICO acknowledges that determining how often to renew consent depends on the context, including “people’s expectations, whether you are in regular contact, and how disruptive repeated consent requests would be to the individual.” Among other best practices, it recommends refreshing consent every two years unless a longer period is justified or a shorter period is required by circumstances, such as a change in the way data are used, or “to ensure good levels of trust and engagement.”<sup>123</sup>

UK law allows personal data to be acquired indirectly and requires organizations to notify individuals about it, generally within one month of obtaining the data. The notice must include “information on the categories of personal data... and the source of that information.” The ICO publishes a detailed table of the disclosures that are required under various scenarios.<sup>124</sup>

## Consideration

Guidance or specific examples from ODPC about the volume, complexity, timing, and context of disclosures would help the industry to provide consent requests that are more relevant and informative. The UK ICO’s collection of guidance materials about consent include useful models.<sup>125</sup>

During our working group sessions, participants indicated that examples are needed to better understand how to consider different literacy levels among data subjects when requiring consent. One example could indicate how to obtain consent from data subjects who need orality in sharing information.

Other considerations in this area include:

- » Provide templates demonstrating appropriate disclosure of common items that can be difficult to convey in simple terms, such as privacy policies, and how to convey technical information in simple terms (for less sophisticated populations) while making additional technical information available for more those who want it.
- » Provide guidance or examples about appropriate timing (‘just-in-time’).
- » Provide guidance or examples to tailor consent requests for contexts where data subjects cannot absorb information, such as mobile platforms.

### 7.1.1.2 Ongoing Questions about Handling Data Subject Requests

Under Section 26 of the DPA, a data subject has the right to make certain requests about their personal data, including access to information held by various financial services providers or other companies for purposes of porting it to other companies including lenders. This provision is central to acquisition of data through third parties as discussed further in [Section 7.2](#), as well as raising questions about what procedures the companies holding the data initially must follow in processing the request. The Data Protection General Regulations, 2021, establish rules for how organizations respond to such requests, including timelines for response ranging from seven days (for complying with requests to access data or denying certain other requests) to 14 days (for rectifying or erasing data) or 30 days (for porting or copying data). It further provides that data subjects “may” make their requests using standard forms provided as a schedule to the regulation. However, many questions remain, such as:

- » Other than accepting completed copies of the optional data subject request forms provided by ODPC in the regulation, what obligations do organizations have for accepting ambiguous, illegible, or non machine-readable requests? How can organizations ensure that requests are clear and actionable?
- » Who is responsible for validating the request to ensure it is from a valid data subject?
- » Is it permissible to extend the deadline for response if there is a valid reason, such as complications related to validating a data subject’s identity or clarifying the nature of the request? The GDPR allows extensions under various circumstances.
- » In responding to data access requests, what information should be included besides the specific data requested? For example, if a data subject requests a copy of the personal data an organization has on file, should the response include information about the purposes of the processing, the source of the data, or other information even though it was not explicitly requested?
- » In responding to a personal data request, is an organization required to provide any information other than personal data that the data subject provided directly? ODPC regulations suggest that personal data collected indirectly, such as information from public databases, should be included in response to data subject requests when feasible. However, working group participants presumed that proprietary information, such as credit scores or credit underwriting analysis, should not be included, particularly when porting data to competitors.

## GDPR

There is a clear process for managing requests for sharing these data, and deadlines for basic and complex requests exist. GDPR legislation and EDPB guidelines establish numerous rules and examples about data subject rights and how organizations will respond to data subject requests.<sup>126</sup> Data controllers must have mechanisms in place to ensure that a valid data subject makes the request, including the verification of the data subject's identity. If a data controller "has reasonable doubts concerning the identity of the natural person making the request, the controller may request the provision of additional information necessary to confirm the identity of the data subject" and may refuse the request if that is not provided; but in general, "the controller cannot request more personal data than is necessary to enable this authentication...." There are "no specific requirements on the format of a request," and data subjects have the right to send their own requests to "an official contact point of the [data] controller." However, data controllers "should provide appropriate and user-friendly communication channels that can easily be used by the data subject" and they are "not obliged to act on requests that are sent to completely random, or apparently incorrect, addresses." Data subjects can make requests free of charge; but organizations may request fees when requests are unfounded or excessive.

Guidelines specify various ways for identifying and providing access to data "depending on the amount of data and the complexity of the processing that is carried out. Generally, requests "should be understood as referring to *all* personal data concerning the data subject," (emphasis in original) but an organization may ask the data subject to specify the request if a "large quantity" of data are processed. Responses must be "in a concise,

transparent, intelligible and easily accessible form, using clear and plain language." The "main modality" for responses is to provide a copy of the data in a permanent form such as written text (commonly, in electronic format). But the "GDPR is not very prescriptive as to how the controller has to provide access" and the guidelines discuss scenarios when "it could be appropriate for the controller to provide access through other ways than providing a copy," such as oral information, including when a data subject asks for it.

Data subjects' requests must be fulfilled without "undue delay and in any event within one month from the receipt of the request." This deadline can be extended an additional two months, in which the data subject must be informed of such extension within one month from the receipt of the request.

The data controller must include further information in response to a request for access, including the retention period, the right to lodge a complaint with the supervisory authority, automated decision-making, and data transfers. The GDPR has a distinct right to data portability with its specific conditions.<sup>127</sup>

## Other jurisdictions

In the UK, ICO issued guidance about data access requests for small businesses<sup>128</sup> and data subjects.<sup>129</sup> Similarly, in Singapore, PDPC issued a guide to handling access requests.<sup>130</sup> See also: [Section 7.2.1.3 of this report](#), discussing data portability issues.

## Consideration

Clarifying the questions listed above, particularly around the scope of 'personal data,' can reduce ambiguity.

### 7.1.1.3 Timelines for Enforcement and Data Protection Impact Assessments

Working group members expressed concerns about timelines for enforcing the DPA provisions. ODPC stated on its website that registration "is an ongoing compliance issue and [covered entities] are advised to register on or as soon after 14 July 2022 as possible."<sup>131</sup> However, participants have ongoing concerns about the timelines for enforcement of rules regarding data processing actions that occurred before an entity was registered. A well-known High Court of Kenya decision regarding the National Integrated Identity Management System (NIIMS) established the possibility that the DPA requirements could apply retroactively.<sup>132</sup> In particular, some commentators noted that the decision could mean that entities may be held in violation for not conducting data protection impact assessments for activities that occurred prior to the enactment of the DPA.<sup>133</sup>

Section 31 of the DPA requires a data controller or processor to carry out a data protection impact assessment (DPIA) whenever "a processing operation is likely to result in high risk to the rights and

freedoms of a data subject...” In its Guidance Note on Data Protection Impact Assessment, ODPC established that whenever these high-risk circumstances exist, a DPIA “must be submitted 60 days prior to the commencement of the processing of personal data.” For data controllers and data processors that were engaged in data processing activities before the Act became effective, the Guidance states: “[ODPC] recommends that those processing data that are ‘likely to result in a high risk’ to rights of data subjects, submit DPIA [for those processes], as this would be taken into consideration in the event of a breach” or enforcement action.<sup>134</sup>

## GDPR

Data processors must conduct data protection impact assessments when data processing “is likely to result in a high risk to the rights and freedoms of natural persons.” A two-year window period was given for organizations to ensure compliance with the GDPR before it was enforced.

## Other jurisdictions

In general, UK data protection impact assessment rules and the law’s implementation timeframes mirror those of the EU. In Singapore, by contrast, data protection impact assessments are required only in more narrowly defined circumstances; and the law’s provisions took effect 12 months after enactment, for organization registration requirements, or 18 months for the main data protection rules.

## Consideration

The ODPC could provide further guidance about assessing and prioritizing which pre-enactment data processing activities now should be subjected to a data protection impact assessment. In addition, ODPC could consider creating safe harbors and clearer timelines for enforcement of pre-ACT data processing impact assessments.

### 7.1.1.4 Whether a Fine will be Applied Per Data Subject or Per Incident of Breach

The main aspect that needs to be clarified is whether a fine will be applied per data subject or incident of breach. Reading the Act, Regulations and Guidance might lead to the conclusion that a fine may be levied per data subject as for example Regulations at 20(3) state: “The administrative fine levied... shall consider each individual case and [etc.],” however, ambiguity remains. If a fine is applied per data subject, the penalties will be significantly greater. In this regard, many organizations have *implied* that the fine is per incident of breach. Although fines are large compared to other frameworks in Kenya, “lower of one percent of turnover or five million KES” is lower than in other jurisdictions.

## GDPR

Article 83 of the GDPR instructs supervisory authorities to ensure imposition of administrative fines that are “effective, proportionate and dissuasive.” The maximum fine for major violations, including failure to meet the conditions for consent, is €20 million (KSh 3.38 billion) or four percent of worldwide annual turnover for the undertaking (i.e., the combined revenue of every related person working together globally), whichever is greater.<sup>135</sup> If an organization “intentionally or negligently, for the same or linked processing operations, infringes several provisions of [the law], the total amount of the administrative fine shall not exceed the amount specified for the gravest infringement.”

## Consideration

The ODPC could consider fines in proportion to the cost of implementation to prevent organizations from risking a fine instead of investing in improving data protection measures. Alternatively, the ODPC could provide clarification that the interpretation of the fine is indeed applied per customer. This approach would be a clear deterrent as the amount applied would increase for repeat offenses.

### 7.1.1.5 Implications of Unstructured Data

Issues around unstructured data, data in file storage, and email services are likely to be in services not necessarily hosted in Kenya.

The DPA applies to automated and non-automated delivery, thus including unstructured data. Not all organizations understand that this addition includes photos, emails, or scanned documents.

As such, the inclusion of unstructured data extends the scope of activities a data controller/processor needs to manage to include all forms of storage, including file storage and email services. Organizations that host an email service outside of Kenya may be at risk of breaching the legislation.

#### GDPR

The GDPR is designed to apply broadly, including to EU organizations that use personal data that are processed outside of the EU and, under certain circumstances, to organizations outside the EU that process personal data of EU data subjects. It covers automated and non-automated delivery, including basic filing systems. The definition of "processing" covers "any operation" performed on personal data "such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction." Data are "personal data" if a data subject could be "directly or indirectly identified," and this may include photographs or video recordings.<sup>136</sup>

#### Consideration

As the ODPC considers the enforcement and improvement of definitions, the implications of unstructured data and the hosting of these data outside of Kenya could be explored, and guidance could be provided.

### 7.1.1.6 The Processing of Data Used to Create an Automated Decision

Under Section 35 of the DPA, a data subject has the limited right not to be subject to a decision based on automated processing. However, organizations may nonetheless engage in decisions based solely on automated processing under certain circumstances, including when it is necessary for entering into or performing a contract or when the data subject consents. Even then, if an organization "takes a decision, which produces legal effects or significantly affects the data subject based solely on automated processing," the data subject may request the organization to reconsider the decision or take a new decision that is not based solely on automated processing. The organization must, "within a reasonable period of time" consider the request, comply with the request, and notify the data subject in writing both the "steps taken to comply with the request" and the "outcome of the request."

Working group members expressed a desire for ODPC to provide examples of the application of Section 35 in products and services provided by financial institutions, including score-based decision-making.

## GDPR

Under Article 22 of the GDPR, data subjects have a limited right not to be subject to a decision based solely on automated processing, which “produces legal effects concerning him or her or similarly significantly affects him or her.” Under certain circumstances, including when it is necessary for the performance of a contract, organizations may nonetheless rely on automated processing; but they must establish “measures to safeguard the data subject’s rights and freedoms and legitimate interests, at least the right to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision.” Under Recital 71 of the GDPR, automatic refusal of an online credit application is given as an example of such an automated decision.

## Other jurisdictions

In the UK, the ICO provides the example of a lender relying on a credit score that is automatically generated by a third-party credit reference agency as a legitimate use of automated decision making on the basis that it is necessary to the performance of a contract.<sup>137</sup> The ICO also describes the automatic refusal of an online credit application as an example of a decision that has “similarly significant effects” to one that affects a data subject’s legal rights (and thus triggers the obligation to allow the data subject to request human intervention or challenge the decision, for example).<sup>138</sup>

## Consideration

The ODPC could provide industry-specific scenarios to highlight different examples of interpretation of the law. In the case of lending institutions, an example that shows a credit decision based on processed data that results in the data subject being declined a loan could be helpful. Exploring other elements can provide more clarity for data controllers/processors and data subjects.

Another example that could be useful is a data subject that applies for a loan that uses the applicant’s mobile application usage as part of the algorithm (e.g., gambling apps), and the loan is rejected.

Additional clarity on what is considered “significant effects” of automated processing and suggested timelines for “reasonable time period” are also needed.

## 7.2 Third-Party Related Issues

A second key infrastructure barrier highlighted during our working group sessions is related to how the Data Protection Act (DPA) handles third-party related issues, including **third-party consent**.

A survey by Ernst & Young published in July 2021, two years after the law’s enactment, indicated that 41 percent of firms transferred their clients’ data to third-party service providers without the client’s consent.<sup>139</sup> The survey noted that one of the main challenges was that organizations have not internalized the requirements provided by the Act. The survey included several businesses, including top banks, insurance firms, SACCOs, and healthcare facilities. An update of their survey published in mid-2022 noted that 19 percent of the organizations had registered with the ODPC.

The DPA defines a “third party” as a “natural or legal person, public authority, agency or other body, other than the data subject, data controller, data processor or persons who, under the direct authority of the data controller or data processor, are authorized to process personal data.”

Under the DPA, a data controller or processor is responsible for ensuring that personal data are “collected for explicit, specified and legitimate purposes and not further processed in a manner incompatible with those purposes.”<sup>140</sup> Additionally, the Act explicitly indicates that the data

controller or processor shall identify itself before collecting personal data<sup>141</sup> and inform the data subject of “the third parties whose personal data has been or will be transferred to, including details of safeguards adopted.”<sup>142</sup>

It is important to note that working group participants understood the importance of protecting individuals’ privacy rights (i.e., protecting their data). Institutions are working towards compliance—to provide transparency on what and how data are collected, accessed, and used, and by whom. It would be helpful for the ODPC to provide categories of types of third parties. Furthermore, for certain institutions, particularly smaller financial institutions, the cost of compliance can be high, and they may need additional support and guidance from the ODPC.

In this subsection, we discuss challenges related to third-party consent and sharing data with third parties.

The following **three aspects** are especially relevant to implementing the DPA as they relate to third parties and lenders’ use of non-conventional data sources and digital credit.

- 1. Need for illustrative examples of proper third-party consent mechanisms** that provide sufficient differentiation of consent options.
- 2. Consider the additional implementation challenges for smaller financial institutions** (i.e., MFIs, SACCOs, and Tier 2 and 3 banks).
- 3. Considerations related to data portability.**

## 7.2.1 Understanding the Challenges

This subsection explores key third-party issues related to the DPA and provides best practice comparisons utilizing the experience of implementations in other jurisdictions, such as the European General Data Protection Regulation (EU GDPR) and guidance and support given by other Data Protection Commissioners.

### 7.2.1.1 Need for Illustrative Examples of Proper Third-party Consent Mechanisms that Provide Sufficient Differentiation of Consent Options

Under the DPA, a data controller or processor is responsible for the personal data collected and transferred. The Act explicitly indicates that the controller or processor must disclose the **purpose** for which the personal data is being collected to the data subject before collecting the personal data (Section 29(c)), as well as **naming** the third parties whose personal data has been or will be transferred to (Section 29(d)). Additionally, organizations are supposed to provide the option to withdraw consent at any time and details on how a data subject can exercise that right.

Compared to the DPA, the EU GDPR provides more nuance concerning a data controller’s duties to notify data subjects about personal data obtained from third parties. Additionally, the EU GDPR provides a timeline for notifying the data subject, which is lacking in the DPA.

Organizations would benefit from illustrative, sector-specific examples, including considerations on providing individuals with differentiated consent options on data obtained or shared by third parties.

## GDPR

Under Article 13 (personal data collected from the data subject) and Article 14 (personal data not obtained from the data subject), the controller shall, at the time when personal data are obtained, provide the data subject with the purposes of the processing for which the personal data are intended as well as the legal basis for processing, and the recipients or categories of recipients of the personal data, if any.

Thus, data controllers cannot collect/obtain and process personal data for purposes other than the ones the data subject was informed of. If the data controller wants to use the data for other purposes, then the data subject must be informed and have the right to object to such processing.

When personal data are obtained from a third party, the data controller must provide additional information to the data subject, including the categories of the personal data collected, from which source the personal data originate, and if applicable, whether it came from publicly accessible sources.

Notice must be given within a reasonable period after obtaining the data; generally, this must be within one month but it could be sooner if the personal data are used for communication with the data subject or if disclosure to another recipient will occur.

## Other jurisdictions

In Singapore, Section 13 of the PDPA prohibits (with limited exceptions) organizations from collecting, using or disclosing personal data unless the individual gives, or is deemed to have given, consent for its collection, use, or disclosure. PDPC publication, "Advisory Guidelines in the Personal Data Protection Act," explains the rules in detail and provides useful examples of when consent is or is not validly obtained. For instance, Section 12.12

demonstrates how to separate general terms and conditions from the disclosure and opt-in request regarding the sharing of data with third parties.<sup>143</sup>

In the UK, the IPO provides a table of what information should be provided in privacy notices under various circumstances<sup>144</sup> and examples of different methods for providing privacy notices, such as "layered" approaches.<sup>145</sup> The ICO also provides a collection of common issues that come up regarding privacy information and the right to be informed, such as when an organization buys personal data from another organization or obtains it from public sources.<sup>146</sup>

## Consideration

The ODPC could provide additional guidelines requiring the data controller to notify the data subject before processing the categories of the personal data collected and give a timeline for notifying the data subject. In this regard, working group participants welcomed a standard template that provides general categories that can be used across the industry.

## Consideration

The industry would welcome illustrative, sector-specific examples that include considerations on providing individuals with differentiated consent options on data obtained from or shared with third parties.

## Consideration

There is a need for contractual agreements between data controllers and third parties accessing data that specify each of the purposes for data sharing and contain parallel restrictions as to sharing, use, and retention, consistent with the data subjects' consent and related law.

### 7.2.1.2 Challenges for Smaller Financial Institutions to Implement Third-party Consent Guidelines (i.e., MFIs, SACCOs, and Tier 2 and 3 banks)

This subsection focuses on the particular challenges for smaller financial institutions to implement third-party consent guidelines and explores how technology solutions may aid in developing the infrastructure that is needed for data storage and processing.

The previous subsection discusses third-party consent, the need to provide the names of each third-party and to require consent for each particular purpose. The discussion recommends contractual agreements between data controllers and third parties accessing data to memorialize the purposes for data sharing and restrictions as to sharing, use, and retention consistent with the data subjects' consent and related law.

The cost of operating, maintaining, and scaling data infrastructure can be high for smaller institutions, and governments may need to support such efforts. A combination of approaches may be required, including supporting smaller players through templates or other support mechanisms to comply with the regulatory framework. Some governments, such as the UK, have established dedicated initiatives to support the development of data-related skills, competencies, and infrastructures.

One area that may be of interest for the ODPC and others to explore is the use of technological measures, including privacy-enhancing technologies (PETs) and application programming interfaces (APIs), as well as trusted third parties.

*Privacy-enhancing technologies (PETs):* Although not a stand-alone tool, PETs can enhance the confidentiality of data. According to the OECD, “privacy enhancing technologies (PETs) commonly refer to a wide range of technologies that help protect personal privacy. Ranging from tools that provide anonymity to those that allow a user to choose if, when and under what circumstances personal information is disclosed, the use of privacy enhancing technologies helps users make informed choices about privacy protection.”

There are different classes of PETs, such as:

- » Data accountability tools that provide enhanced control over how data can be gathered and used
- » Data obfuscation tools that reduce the need for sensitive information to leave where the underlying data are kept and processed
- » Encrypted data processing tools that run computations over encrypted data that are never disclosed.

Data accountability tools may be particularly useful to smaller financial institutions, including accountable software systems that manage the use and sharing of data by tracking how data are collected, processed, and used. Data access can be granted to the accountable system, adding limitations to the data.

Data obfuscation tools require access to the raw data that must be processed locally on the data subject’s device, or altered by adding noise or removing identifying details. Although this subsection does not discuss data obfuscation tools in detail, such tools include federated learning,<sup>147</sup> where raw data are pre-processed at the data source. The health sector in the European Union has explored the use of federated learning for securing the privacy of health data for both public and private sector research.<sup>148</sup>

*Application Programming Interfaces:* An important solution raised in our working group discussions when discussing third-party consent and third-party data sharing was the use of Application Programming Interfaces (APIs). In other jurisdictions, APIs underpin most data transfers. This enables the smooth interoperability of different actors and their technologies. APIs can play different roles, including protecting sensitive data and aiding regulatory compliance. From the user’s perspective, they can contribute to a more secure digital experience.

Although this subsection is written with smaller financial institutions in mind, the Kenyan financial system would benefit from enabling APIs and including rules about who can access certain data based on predefined permissions. APIs can aid compliance with data privacy regulations by providing mechanisms for managing and implementing processes like consent management, data retention policies, and user requests for data deletion.<sup>149</sup>

**Trusted Third Parties:** Typically, with trusted third parties, an informed person or organization takes the fiduciary duty to govern data use or sharing on behalf of its members concerning third parties. The intention is often to increase access and sharing of the data while safeguarding the rights and interests of the data controllers and processors. This can include Personal Information Management Systems (PIMS) and service providers that use data accountability tools to enhance the data subject's control over their data. The data subject can choose how they want their data stored, accessed, and processed.

Minimum requirements should be considered when operating as data trusts. Legal requirements include the authority to collect, share, and hold data, well-defined policies and processes for the collection, storage, use, and disclosure of the data (including data safeguards). Data user requirements include required training before accessing data, etc.<sup>150</sup>

## Other jurisdictions

In the UK, HM Treasury commissioned a study to explore how competition and consumer outcomes in UK banking could be affected by banks giving customers the ability to share their transaction data with third parties using external Application Programming Interfaces (APIs).<sup>151</sup> The study found that third-party access to consumer data is compatible with applicable UK law and the principles of privacy by design so long as it is implemented carefully.

Chapter 3 of the study report indicated APIs could enable better data sharing in banking: "APIs allow different software applications to communicate with each other and exchange data directly, without the need for human input each time. They have become the de facto standard for sharing data and have enabled organizations that hold large amounts of data to become platforms for third-party innovation."

Chapter 4 of the study report indicates that organizations currently "access data using means such as manual downloads, screen scraping, manual entry and

occasionally bilateral data feeds." It acknowledges that these methods may be harder to use, expensive, and have limited capabilities.

Additionally, the UK ICO provides guidance discussing Privacy Enhancing Technologies (PETs) in detail, both for data controllers and data processors and for a technical audience that wants to learn more about the technology.<sup>152</sup> For smaller or less sophisticated organizations, the ICO provides a list of tips and tools for preventing personal data breaches.<sup>153</sup>

## Consideration

The ODPC should explore the use of technological measures, including privacy-enhancing technologies (PETs) and application programming interfaces (APIs).

The UK ICO indicates that "PETs link closely to the concept of privacy by design, and therefore apply to the technical measures that can be put in place." PETs can "assist ... in complying with the data protection principles and are a means of implementing data protection by design ... on a technical level."<sup>154</sup>

### 7.2.1.3 Considerations Related to Data Portability

Data portability is an essential tool to grant users better agency and control over their data, enabling the data subject to download or share their data. For a consumer or MSE, the right of data portability means they have the right to get their data from any organization in a format that is accessible and machine-readable. This also means they can ask the organization to transfer their data to another organization. In theory, and if implemented correctly, the right of data portability would allow consumers and MSEs to reuse their data to access services, including to apply for a better loan at a different financial institution.

In line with what was raised under data subject access requests in [Section 7.1.1.2](#), there is ambiguity around the scope of 'personal data,' which also affects data portability:

- » Is the scope of the requirement limited only to data made available directly by the data subject and not data collected indirectly, or is proprietary information created by the data controller, such as credit scores?

There is a need to clarify whether only information provided by the consumer needs to be transferred or whether information generated about the consumer through decision-making processes are also subject to data portability.<sup>155</sup> Under GDPR, only information provided by the consumer needs to be transferred, not information generated through proprietary decision-making processes.

### Other jurisdictions

In the UK, the right to data portability entitles individuals to receive a copy of their personal data or have their personal data transmitted from one controller to another. It can be achieved by either:

- » Directly transmitting the requested data to the individual
- » Providing access to an automated tool allowing the individual to extract the requested data

The controller can decide their preferred method of providing the information requested depending on the amount and complexity of the data requested. However, they do need to ensure the

data are secured. Additionally, the right to data portability only applies to personal data.

The UK ICO offers additional resources, including linkages to the Open Data Handbook published by Open Knowledge International, as a guide to 'open data.'<sup>156</sup> The UK ICO provides an accountability framework with a section on data portability.

See also: [Section 7.1.1.2](#) of this report, discussing data subject requests.

### Consideration

There is a need to clarify the scope of personal data as part of the right to data portability.

## 7.3 Implications of Resolving Remaining Ambiguity around the DPA

### Demand-Side: Women-owned MSEs

- » Improved consumer welfare and MSEs experiences as they access credit with a better understanding of terms and conditions and awareness of their rights.
- » Implicitly, reduced obfuscation will fundamentally build borrower trust and ultimately open up access to credit as the borrower more readily consents to data sharing.

### Supply-side: MSE Lenders

- » Proper implementation and enforcement of relevant legislation and regulation will contribute to prudent and more effectively priced lending to MSEs.
- » Further clarifications around the DPA will provide lenders with the clarity required to confidently use non-conventional data in their credit underwriting process.
- » Innovation may be stifled by ambiguity around the implementation of the Data Protection Act, and removing that ambiguity will encourage lenders to innovate their products and processes.
- » Implementation of the DPA is an added 'hurdle' to lenders, as they now have an added cost to complying with the regulations. It is an inevitable requirement that regulators and lenders work together to acquire the necessary clarifications and competencies to adhere to the DPA.
- » The capacity of small(er) lending institutions to comply with the DPA is lower than it is for larger institutions. Therefore, removing ambiguity and providing guidance will particularly benefit these smaller institutions.

## 8. ACHIEVING TRANSFORMATIVE ACCESS TO CREDIT FOR WOMEN-OWNED MSEs

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In this concluding chapter, we explore what it could take to deliver transformative access to credit for women-owned MSEs. [Chapter 5](#), [Chapter 6](#), and [Chapter 7](#) presented incremental data and policy solutions that largely benefit the entire credit access ecosystem. In terms of conventional data solutions, we identified five recommendations that focus on improving Kenya's credit information sharing framework. The Central Bank of Kenya (CBK) and the National Treasury and Economic Planning are the primary stakeholders to lead and implement these recommendations. In the chapter on non-conventional data solutions, we identified the importance of further digitization of payments and invoices and the need for digital data trails. We acknowledged the importance and potential of digital wallet transaction data and how this data source is currently accessed.

Despite the value of these solutions, solving the financial inclusion challenge requires an acknowledgement that, from the data perspective, there is no 'one-size-fits-all' data source. No single incremental segment of data uniformly captures the extremely diverse range of financial behaviors of borrowers who sit on the margins of the lending system. This fact is true globally, and especially for women-owned MSEs in Kenya. Solving the financial inclusion challenges of women-owned MSEs through an incremental approach is essentially a 'long-tail' problem, where solving the data needs for women-owned MSEs requires integrating a very large number of diverse data sources, each making an incremental contribution to the overall solution.

Moreover, implementing the full set of incremental changes described above would be resource intensive, and incentives are strongest to prioritize initiatives that will benefit more formal lenders and larger business borrowers. Because women-owned MSEs are more likely to be cash-only or sparse file, informal businesses, they may be less likely to benefit from these initiatives than other MSEs. In reality, achieving real transformation within a reasonable timeframe for women-owned MSEs will likely require a more *disruptive* initiative rather than small incremental revisions to the data and lending ecosystem. Our perspective is based on understanding the behavioral dynamics of human business systems and what it takes to achieve a fundamental change in its performance. To demonstrate this perspective, we briefly review a study of the introduction of a generic risk credit score, VantageScore, to compete against the FICO generic risk credit score in the United States in 2007.

**BOX 9 CASE STUDY: INTRODUCING A NEW CREDIT SCORE INTO THE US FINANCIAL SERVICE CREDIT RISK PROCESS**

Until 2007, credit risk assessment in U.S. financial services almost universally required a single credit score, FICO Classic. The score was originally built in 1989 by Fair Isaac Co. and deployed on the three credit bureau platforms (Experian, Equifax, and TransUnion). The consumer lending industry almost immediately adopted the score. Secondary securitization and funding entities similarly began to rely on it. Consequently, regulatory agencies and legislation began to reference FICO scores as a primary statement of consumer risk. The proliferation of references to the FICO Score created a perspective within the industry that the only universally accepted score was the FICO Classic score.

FICO scores were re-trained on new consumer behavioral data approximately every five to six years to capture changes in the economy, product, lending strategy, and consumer perspectives. However, major revisions to existing algorithms or adoption of new scores would have created the prospect of extensive validation and re-calibration work from score users. While there were no formal restrictions to creating and offering more innovative scores, the credit ecosystem showed little receptivity to alternatives as FICO scores became increasingly entrenched in lender and investor systems.

In 2007, the three credit bureaus formed VantageScore Solutions, an independently run company. The company's mission was to build and maintain a new score to address financial inclusion concerns by scoring 30–40 million more consumers than FICO. VantageScore factored in types of data that were only available to a very limited extent in CRB reports and substantially retrained its algorithms every three to four years to improve performance. Fundamentally, the existence of the company and the score were intended to foster a competitive marketplace that would spur innovation by all score developers and, as a result, improve risk assessment tooling within the industry.

Over the course of the next fifteen years, lenders in U.S. mortgage markets continued to rely on Classic FICO due to the way that it had been embedded in securitization processes, while lenders in other credit markets adopted later versions of FICO and of VantageScore. In

2022, U.S. regulators announced that the latest versions of both scores were acceptable for mortgage securitization purposes, although implementation is expected to take several additional years.

The case study emphasizes the fact that the financial service sector functions as an intricately connected and calibrated network of relationships between various participants—borrower, lender, investor, and regulator. Like cogs and wheels in an analog watch, relationships are designed and allowed to work only within a tightly controlled range. Anything beyond that causes the system to become out of balance. The human participants who architected and now operate the system are at the core of this ecosystem. While financial considerations help to shape their activities, as humans we also resist changes to systems because of a fear of loss. Heifetz astutely describes this as a dynamic where “humanity implicitly and intangibly creates a system of structure, culture and language and a suite of norms that condition how we live and relate with one another. This system inevitably facilitates living in a form of harmony where the likelihood of experiencing loss resulting from change, a loss that is always perceived as painful, is minimized. Inherent to this organizational system, is a self-reinforcing dynamic that causes it to do whatever it can to sustain its status quo, in other words, to resist change.”

Multiple lessons are potentially applicable in the Kenyan context. Firstly, the data and analytics used in VantageScore were simply the starting point. Demonstrating performance and satisfying regulatory governance expectations are gating criteria but may not of themselves be sufficient to ensure acceptance and adoption. Secondly, the entire network of participants and relationships needed to be engaged in continual dialogue over multiple years, regulatory regimes, and economic cycles. Persistence in creative connections and messaging was essential. For example, a decision by Credit Karma, a consumer-centric platform, to deploy VantageScore to support consumer education initiatives helped to increase the profile of the company and of credit scores more broadly by teaching millions of consumers how to access, monitor, and take steps to improve their scores over time.

## 8.1 Observations Relevant to Transformative Access to Credit for Women-owned MSEs

As stated at the beginning of this chapter, the solutions presented in [Chapter 5](#), [Chapter 6](#), and [Chapter 7](#) would deliver value to the entire lending ecosystem. However, incentives are strongest to prioritize initiatives that will benefit more formal lenders and larger business borrowers. This raises important questions about how to motivate and structure transformative change to assist the large number of women-owned MSEs. This section considers these dynamics in greater depth and potential steps toward faster improvements to assist women-owned MSEs as particularly critical to Kenya's future economic growth.

### **Observation** The increasing complexity of the Kenyan financial service ecosystem is likely to distract from concentrating on mainstream lending solutions for women-owned MSEs

In many ways, Kenya's financial service sector is far more complex than the U.S. system in the case study example and also likely to 'suffer' from similar resistance to change dynamics. This is especially likely given the dominant position held by Safaricom in terms of mobile wallet and transaction data, perhaps the strongest non-conventional data source available to the system. Additionally, the growing dominance of digital lending and the absence of regulatory structure surrounding loan reporting in this sector highlight tremendous challenges for maintaining safe, sound, and responsible lending practices. While some of the innovation occurring within the system is highly encouraging, regulatory guidance and resources are challenged to keep up with the pace of it. Effective change for our target population requires a robust ongoing dialogue with the appropriate regulatory functions. However, it is unlikely that regulatory alignment with onboarding new non-conventional data solutions for women-owned MSEs would become a high priority until regulatory guidelines have been enhanced for conventional data solutions. Given the remit of the regulators and the size of the financial ecosystem that relies on conventional data, this is an appropriate prioritization. The credit reference bureaus are similarly challenged with prioritizing the development of non-conventional data solutions given the high cost of digitizing the data compared to a comparatively small addressable market. Finally, the recent announcement of the nullification of the Credit Reference Bureaus Regulation 2020 (Aug 28, 2023) will create further turmoil as the CRBs and regulators work to determine how borrowers' credit information is exchanged between lending institutions.<sup>157</sup>

### **Observation** Yet there is strong organic receptivity to developing solutions for MSEs with non-conventional data sources

Notwithstanding the challenges of prioritizing and resourcing MSE-based data solutions above broader mainstream solutions for consumers and businesses from a resource and regulatory perspective, there is a meaningful desire from government, industry, and MSE advocates to develop non-conventional data-driven solutions. The government offers two business loan products through its Hustler fund. The industry, especially digital credit providers, offers a variety of lower-value lending products for the consumer (who serves as a proxy for the business) or the business. Overdraft products such as Fuliza similarly serve the needs of business owners, albeit with a bias toward solving liquidity needs. Interviews with micro business owners, in addition to desk research, point to loan pricing and unacceptable terms as the issues rather than a sparsity of products and demand. In parallel, the clearly expressed frustration within the industry of being unable to access Safaricom data, unless on very costly terms for the lender that are likely passed through to the borrower, has established a persistent conversation involving non-conventional data solutions. The challenge for many lenders and aggregators is how to bear the high cost of digitizing the long tail of data solutions needed to solve the majority of credit-excluded MSEs.

**Observation** Safaricom's ownership of M-PESA mobile phone wallet data and their strategy as to when they will be allowing access to the data by other industry constituents strongly dominates the form and nature of this data source

The industry recognizes M-PESA mobile wallet transaction data as the strongest non-conventional data source, delivering powerful predictive insight on credit propensity and affordability dimensions. Additionally, M-PESA data are available for a large percentage of MSEs. Creating access to this data source would open up access to credit. However, as in the U.S. the dominance of a single actor in the marketplace is shaping the broader lending ecosystem. Safaricom's strategy requires a revenue-sharing lending partnership, such as that which exists between themselves, NCBA, and KCB. Many lenders within the working group discussions described attempts to partner with Safaricom as failing due to the prohibitive pricing structure they are required to support. This has become an overwhelming barrier to fully leveraging this data to support greater credit access.

Stakeholders in Kenya are debating options to improve data access, such as regulatory requirements to share the data, creating a co-ownership model where customers have a right to access their data in more easily portable formats, and scenarios in which Safaricom generates a credit score at low cost based solely on M-PESA data that can be accessed through open APIs and allows others to elaborate upon it. An empirical analysis of the various data elements could help to facilitate conversations about potential paths forward.

**Observation** Given these market dynamics, there may be no better time to develop an independent non-conventional data solution for women-owned MSEs and MSEs in general, specifically a platform that would facilitate access to multiple types of non-conventional data

We suggest that the dynamics within the sector regarding enabling access to credit for MSEs has opened a window of opportunity for the right solution. Developing an appropriate solution should reflect the following characteristics:

1. Data sources must naturally be proven to deliver predictive value, cover a sufficient volume of the women-owned MSE population, and satisfy accuracy, privacy, consumer permission, and reporting regulatory criteria.
2. Given the long-tail character of the data sources, the solution should account for the majority of data sources to be beneficial. A further consideration will also be that some of these sources are not available in digital format, requiring innovation from a capture, automation, and format layer. Production robustness considers whether these data can be readily scaled while satisfying Kenyan regulatory underwriting criteria.
3. Integration economics must be analyzed to understand the cost of supporting the data source within the solution. Apart from the initial set-up cost to establish the data infrastructure, there are ongoing costs to maintain and ensure the data are efficiently and accurately accessible. The integration economics task investigates whether the income opportunity from incremental loan originations to MSEs can offset the maintenance and infrastructure expense of using the data.
4. A possible solution could coexist alongside conventional data systems, equally funded and owned by the existing CRBs and/or independently owned and funded. The motivation here is to ensure resources and priorities for the solution are set independently rather than predicated on more profitable business priorities.

**Box 10** describes an empirical study that responds to the identified activities for developing an appropriate solution.

## BOX 10 EMPIRICAL ANALYSIS OF THE VALUE AND FEASIBILITY OF NON-CONVENTIONAL DATA FOR UNDERWRITING MSEs

While there are many views on the value of non-conventional data and the associated complexity of integrating it within the underwriting system, there is no aligned perspective on which data sources are most valuable and what it would take to deploy the data within the underwriting process. We propose an analysis that seeks to address the diversity of views by empirically studying each data source's value and integration needs to present an objective assessment of which sources can add the greatest value to the overall ecosystem.

Accurate empirical work hinges on the design and development of several pools of business owners, loan performance, or application information for declines. This study requires a representative sample of *anonymized* business loans across Kenyan populations. A sample of business owner credit files and their loans would be randomly selected, representing the full credit risk spectrum, business size, gender, business type, and loan data. Ideally, all conventional data from the bureau and the lender should be appended to the loan record. This pool serves as the spine for predictive modeling and coverage analyses. A second pool representing businesses that were *declined* for a loan should also be created. If this information is not available, businesses with originated loans but with very low credit scores may be a reasonable proxy. Finally, a third pool of businesses with no presence in the credit bureaus should be developed.

For each data source under evaluation, a record of relevant non-conventional data fields or attributes must be matched to the business and timeframe. Optimally, these data sources are matched at the business owner level. However, the data may be appended at the business sector/geographic level.

The first phase of this study would analyze each data source with regard to:

- » **Credit Risk Assessment Contribution**—how much risk insight does a data source offer?
  - › What are the specific fields (or derived attributes) within the data source that contribute to the predictive insight?
  - › Is there potential for disparate treatment or impact (punitive bias) when using these data sources?

- » **Production Robustness**—can these data be readily scaled while satisfying Kenyan regulatory criteria for underwriting data?
  - › Gathering and appending each non-conventional data source significantly informs this evaluation. The degree to which each data source can be digitally accessed and validated for accuracy and coverage, in addition to satisfying regulatory and data privacy criteria, provides a framework for 'scoring' the financial service sector's capacity for successfully integrating the data into the underwriting processes.
- » **Integration Economics**—can the data be cost-effectively integrated?
  - › Apart from the initial set-up cost to establish the data infrastructure, there are ongoing costs to maintain and ensure the data are efficiently and accurately accessible. Does the income opportunity from incremental originations offset the maintenance and infrastructure expense for using the data? A 'source break-even' analysis brings together the opportunity to enhance revenue given the predictive contribution that the data can make through improved risk assessment and universe expansion offset by the variable cost of maintaining access, processing, and ingesting the data.

Consequently, a second phase would focus on:

- » **Non-conventional Data Underwriting Applications:** how can the data be used to optimize risk insight in the underwriting strategy?
  - › Having evaluated each source independently, a final task will focus on creating the architecture for using these data in underwriting strategies. A data waterfall will be developed, assuming the data are used sequentially. Additionally, a non-conventional data credit score design will be developed that offers insight into default propensity and affordability.

The observations above present a window of opportunity to fundamentally change the credit access dynamics and offer several insights regarding an approach to developing a solution that can deliver a meaningful and sustainable impact. Being mindful of Heifetz's insight on human resistance to change, perhaps the most critical contributor to achieving transformative success will be the nature of its leadership, which must exhibit patience, perseverance, pragmatism, and, above all, persistence. Without leadership of this nature, transformative access to credit is unlikely to take hold.

## 9. CONCLUSION

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In March 2023, FinRegLab began a study to understand the issues facing MSEs, especially women-owned MSEs, as they seek access to credit. The engagement was funded by the Bill & Melinda Gates Foundation. The study considered the conventional credit data system and non-conventional data solutions that might facilitate access to credit. In parallel, the study examined the regulatory implications concerning consumer permission, data privacy and credit information sharing when these data are included in credit access.

FinRegLab engaged with industry stakeholders such as lenders, trade associations, regulators, and observers to develop its findings. A series of stakeholder working group meetings were held to discuss the issues presented above. Additionally, bilateral discussions and desk research informed the study. The dialogue process began with exploring the data access issues across the ecosystem. Drilling down to the specific issues facing women-owned MSEs, the FinRegLab team met with several business owners to discuss their perspectives on credit access, data needs, and engagement with technology. Given this view, FinRegLab then re-engaged with lending and regulatory stakeholders to prioritize data and regulatory enhancements that improve the overall system and address the needs of women-owned MSEs. FinRegLab facilitated the stakeholder dialogue such that the priorities were those of invested parties rather than an external voice. Finally, FinRegLab offered its perspective on what it would take to achieve transformative credit access based on the team's global experiences in financial services.

The working group dialogue and findings reflect a highly sophisticated and complex ecosystem heading toward a dangerous precipice from a credit risk safety and soundness perspective. Innovation from digital lending and mobile data technology is outpacing the necessary regulatory infrastructure, and adherence to credit information sharing regulations, essential for accurate credit risk assessment, is waning among lenders. The impact of these trends is a continual injection of expanding risk into the system, given the visibility of the borrower's credit footprint is diminishing, and regulatory enforcement actions to align and compel data sharing are rare.

Numerous non-conventional data sources were identified that could provide incremental risk insight especially for micro and small enterprises. The most compelling and extensive of which is undoubtedly mobile wallet (such as M-PESA) data. However, M-PESA data owner Safaricom's dominant position in the marketplace presents complex challenges for universal access to the data.

Notwithstanding the M-PESA access challenge, a diverse range of lending and non-conventional data solutions are surfacing in the marketplace, signaling a strong interest by both the supply-side and demand-side to resolve the access issue. Solutions include innovative lending products like

the government's Hustler fund, short-term liquidity-oriented digital loans, and Fuliza overdrafts. Non-conventional data solutions include text message interpretation and supply chain data.

There is substantial access to credit for those who need credit, even for MSEs. The issue is that credit is typically highly priced or of very low loan amounts. High-priced terms render the loan inaccessible to the MSE, especially women-owned MSEs who typically operate in the informal sector with such minimal profitability that they cannot afford these high-price terms. Lower loan amounts solve liquidity needs, enabling the MSE to survive, but do not provide growth capital, allowing a business to thrive. The MSEs essentially hit up against a ceiling that constrains their potential.

Given these challenges and trends, is there a solution for women-owned MSEs that can resolve their credit access issues? We believe that the marketplace dynamics offer a unique window of opportunity to develop a non-conventional data platform solution that, when paired with the conventional data ecosystem, presents a 360-degree view of credit management propensity and affordability. The immediate value of this solution for MSEs is clear, given the capacity of thriving MSEs to drive up the economic health of Kenyan businesses. Equally compelling is the potential that a 360-degree view of risk assessment has to raise the risk quality of lending for all borrowers, consumers, and businesses, driving a sea change in the holistic Kenyan economy.

## APPENDIX A

### *Processes for Accessing Credit*

Access to credit follows standard business processes. The individual, a prospective borrower, applies to a lending institution for a loan. The lender uses a number of methods to evaluate the prospective borrower, including a review of their loan repayment history, their credit file. This history is typically analytically synthesized into a credit risk score. A borrower who has been more effective in repaying their loans on time receives a higher score and can therefore be offered greater access with more beneficial terms. If a lender perceives that the score does not accurately reflect the borrower's repayment capability due to insufficient or inaccurate data, the lender may offer a lower loan amount, offer the loan at a higher price or not offer a loan at all. Other data may be used to supplement this core risk assessment process such as business performance, collateral or cosigner information.

Enabling the above process requires a data infrastructure and sub-processes. Lenders must report the loan repayment data accurately and on a timely basis. The loan data are typically validated and then appended to the borrowers' credit data file and stored within a centralized repository, a credit reference bureau (CRB). The borrowers' full credit file is used to generate a credit score. For the purposes of this study, we define conventional credit data as any data that are consistently reported to and therefore accessible through the CRB databases. The data are typically generated by formal, regulated lending institutions. Note that the data are not necessarily superior in predictive power, they are simply digitally consumable and either currently or originally represent a substantial portion of borrowing activity within the lending system. Conventional data sources are typically delivered through regulated, back-end automated processes and do not require specific consumer permission for a downstream lender to receive the data.

Non-conventional data are defined as any data source that is currently not reported or accessible through a CRB database. Reasons for exclusion have little to do with the data's predictive strength but are typically related to unknown accuracy, smaller population representation, or data that are not yet digitally consumable. Non-conventional data typically require consumer permission to release the data. Non-conventional data volumes can often represent only a fraction of borrowing activity compared to conventional data volumes. This fractional contribution is often a contributing factor for why the data has not been previously included in the conventional data system. Note that the financial service industry often uses the terms 'alternative' and 'non-conventional' interchangeably. However, over time the term 'alternative' has also conveyed the sense that these data are lesser in terms of predictive value which is certainly not the case for some categories of information. Consequently, throughout the report we use the term 'non-conventional' to avoid reinforcing the sense of diminished impact.

Finally, when a borrower wants to obtain credit from a lender, the lender requests the borrowers' updated credit score from the CRB. Assuming the borrower has a credit file and score, the score is high enough and all other criteria are satisfied, the loan is approved. Thus, typical access to credit requires that the five criteria, as described in the main text, each be satisfied.

## APPENDIX B

### *List of Organizations Participating in Working Group Sessions*

#### Participating Stakeholders (in alphabetical order)

Absa	Metropol
AFRACA	Microsave
Agricultural Finance Corporation	Ministry of Co-operatives and Micro, Small and Medium Enterprises (MSME) Development
Asante Financial Services	National Treasury and Economic Planning
Association of Microfinance Institutions (AMFI)	NCBA
Branch	Safaricom
Busara	SASRA
Cambridge SupTech Lab	Spin Mobile
Central Bank of Kenya (CBK)	Stanbic
CGAP	Standard Chartered
CIS Kenya	Tala
Competition Authority of Kenya	TransUnion
Creditinfo	University of Nairobi
DFSAK	Veri Credit
Equity	WOCCU
First Principles Consulting Limited	
FSD Kenya	
Juhudi Kilimo	
Kenya Bankers Association	
KCB	
Maisha	
Meraki Africa	
Mercy Corps	

## APPENDIX C

### *Lender Landscape*

The type of products offered by the different credit providers vary, for example in terms of loan size, (repayment) terms and conditions, data requirements, and so forth. The offerings of credit providers are always developing and not fixed in the search for greater market share or profitability. Recent examples of this are digital credit providers increasingly offering larger loans with longer repayment terms and banks increasingly offering digital loan products (smaller loan size and shorter repayment period than conventional loans) as well as unsecured lending products.<sup>158</sup>

**Chama saving groups** are typically informal groups in which participants have to save a certain amount of money per week. They are funded through self-generated savings and provide participants with the opportunity to borrow on a rotating basis. Chama groups play an important role in the financial ecosystem in Kenya, in particular for microenterprises, as participation in a chama saving group is often required in order to access a loan with a MFI or microfinance bank.

**SACCOs** are formal member-based savings and credit groups with their membership traditionally based on affinity groups or a so-called 'common bond', e.g. SACCOs for teachers, SACCOs for bus drivers, etc. SACCOs offer a low-cost, regulated type of finance, but they typically offer limited loan amounts. Loans require collateral or one or more guarantor(s) and they may require a CRB check.

SACCO membership was previously exclusively available to certain groups of people and based on a common bond, however more and more SACCOs have moved towards an open bond model which allows the general public to join a SACCO. To become a member of a SACCO requires filling out a membership application form and often payment of a membership fee. Lending by SACCOs is traditionally linked to the deposit a borrower puts in, with SACCOs generally providing loans the equivalent of three-times the member's deposit.

**Digital Credit Providers (DCPs)** offer very small loans with shorter terms typically delivered instantly to mobile money accounts. They come with higher interest rates, typically between 44 percent to 300 percent annually, and are underwritten based on transaction data and previous repayment history, and may require a CRB check. Since the introduction of the Digital Credit Providers Regulations 2022, DCPs are regulated by CBK.

**Microfinance Institutions (MFIs)** are a formal source of finance that provide loans based on social collateral and group structures, and loan amounts are typically backed by chattel. Interest rates are lower at 30 percent to 40 percent annually but might require documentation, typically have a slow turnaround, and may require a CRB check.

**Microfinance Banks (MFBs)** are a formal source of finance regulated by CBK and are often referred to as deposit-taking MFIs. MFBs fall into two categories: community based MFBs and nationwide MFBs. MFBs can mobilize deposits from the general public, incentivize savings, in addition to offering loans. Loans typically require detailed documentation and a CRB check.

**Banks** are a formal source of finance that typically extend credit based on detailed due diligence. These loans typically have detailed documentation requirements, slow turnaround in particular for more traditional loan products, and require a CRB check. Banks have moved towards more digital products in recent years, with NCBA's M-Shwari and KCB M-PESA as prime examples.<sup>159</sup>

**Hustler Fund (or officially Financial Inclusion Fund)** is a formal source of finance, provided by the Kenyan government. The Hustler Fund was operationalized by the Public Finance Management Regulations, 2022. The fund is a digital financial inclusion initiative designed to improve access to responsible finance for individuals and MSMEs, and it offers multiple products at low interest rates: a personal loan product (KSh 500 to KSh 50,000 depending on scoring), and individual and group microenterprise loans. The Government of Kenya seeks to expand the Hustler Fund and is collaborating with the World Bank and EU on external funding to keep the costs of the fund low as the sustainability of the fund has been questioned.<sup>160</sup>

## APPENDIX D

### *Formalization*

Formalization involves the process of obtaining licenses, registering with the Registrar of Companies, and compliance with statutory requirements such as taxation, social security and labor laws.

The process of registering with the Registrar of Companies can take about a month if done in person, especially if documents are not well organized. It can be done by visiting any Huduma center across Kenya. Online, through the eCitizen platform, the process is faster. Registration on eCitizen requires the MSE to create a profile on the online platform with a valid email address, fill in their full names as they appear on their national ID or passport, and enter their national ID number.

The registration process, both online or in person, is described below:

- » The applicant submits a proposed business name through the Office of The Attorney General and Department of Justice.
- » A search is then conducted to identify if someone else has already claimed the name the MSE plans to use for their business through the Registrar of Companies and is waiting for approval of the proposed name.
- » Once the search is completed, a search letter and invoices for KSh 800 for registration and KSh 50 for a processing fee are created.
- » The applicant submits a description of the nature and the activities of the proposed entity.
- » The applicant indicates the postal address of the proposed entity and the physical address of the proposed entity, including the plot number, town, and county.
- » The applicant presents a copy of the national IDs or passports of the business owners, passport photos of the business owners, as well as copies of their PIN Certificate Payment of KSh 850 for registration

Once the business registration is complete, the company will receive a certificate of incorporation, which indicates that the business is registered under the name provided and the registration date. This certificate can then be used for official business activities, such as creating and signing contracts, opening business bank accounts, and applying for funding.

In practice, MSEs often need to additionally comply with licensing requirements specific to the trade or activity in which they operate. Various county governments in Kenya issue these single business permits, and the type of business permit depends on the business's geographical location, number of employees, and activities.

In order to get a business permit, MSEs need to present a copy of their personal ID, certificate of incorporation, Kenya Revenue Authority PIN certificate, approved business permit application, and a payment invoice.

In practice, the details that are included in an application are important as they are linked to the cost of the license. For example, a microenterprise operating in Nairobi may get authorization from their city council office and submit an application with a payment of KSh 200. This authorization grants a business permit or license and is renewed on a yearly basis. Costs vary depending on the type of license, but a kiosk or temporary construction of less than five square meters may need to pay KSh 4,000 annually to operate in Nairobi.

This results in a regulatory environment with multiple licensing requirements and multiple processes associated with formalization that is often cumbersome for MSEs to navigate. It also entails significant upfront expense in getting the needed documentation in addition to various fees for the license and registration.

While registration is a valuable process from a credit access perspective, it is not a requirement to access credit per se, particularly for microenterprises that access credit as an individual. Lenders often provide loans to these business owners as consumer credit or based on the individual's credit-worthiness, even though funds are used for business purposes.

The benefits of formalization do not in all cases and for all enterprises outweigh the drawbacks of formalization, and enterprises implicitly or explicitly make a trade-off between operating formally or informally.

## APPENDIX E

### *Regulatory Landscape*

The complexity of the regulatory environment and the existing gaps in institutional coordination have been acknowledged by the Kenyan government in the 2020 Kenya MSEs Policy. The 2020 Kenya MSEs Policy identified the need for policy interventions that create a conducive legal and regulatory environment at the national and county levels, with the objective of establishing an integrated approach to laws and regulations relevant to MSEs.

The Central Bank of Kenya (CBK) is the primary financial regulator in Kenya. CBK regulates the Kenyan banking sector,<sup>161</sup> including 38 Commercial Banks, one Mortgage Finance Company, one Mortgage Refinance Company, ten Representative Offices of foreign banks, 14 Microfinance Banks (MFBs), three Credit Reference Bureaus (CRBs), 19 Money Remittance Providers (MRPs), eight non-operating bank holding companies, 32 Digital Credit Providers (DCPs)<sup>162</sup> and 72 foreign exchange (forex) bureaus.

Other key laws and regulations account for the oversight of microfinance institutions and digital lenders. The Microfinance Act of 2006 provides a regulatory framework for microfinance banks (deposit-taking microfinance businesses) to be overseen by CBK.<sup>163</sup> Credit-only microfinance institutions (MFIs) that do not accept deposits are not, however, subject to the Microfinance Act.

A 2021 amendment to the Central Bank of Kenya Act also gave CBK the authority to regulate digital lenders, primarily by setting up a licensing regime for these types of institutions.<sup>164</sup> Other provisions include requirements for digital lenders to disclose loan terms and fees, limits on predatory debt collection practices, and greater data privacy protections for customers.<sup>165</sup>

Additionally, the SACCO Societies Regulatory Authority (SASRA) is the government's principal agency responsible for the supervision and regulation of SACCO societies. It falls within the State Department of Cooperatives under the Ministry of Cooperatives and MSME Development. It was established pursuant to the provisions of the 2008 Sacco Societies Act, No.14. Their principal responsibility is to license SACCO societies to undertake deposit-taking business in Kenya and to supervise and regulate both deposit-taking and specified non-deposit-taking SACCO societies.

In the remainder of this section we will briefly discuss the Data Protection Act and the Digital Credit Providers Regulations. Mobile data collected from consumers—including customers' mobile contacts and text messages—can be used to check the history of mobile money transactions, thus providing lenders with useful information on consumers and MSEs that may lack more traditional forms of credit data. The use of these data, however, poses data privacy risks as well as consumer protection risks. These two pieces of legislation aim to protect consumers generally and, in the context of this study, borrowers specifically. [Chapter 7](#) contains a more in-depth analysis of the Data Protection Act and the Digital Credit Providers Regulations.

## Data Protection Act

The Data Protection Act (DPA) came into effect on November 8, 2019, following a seven-year effort to develop the law. Modeled from the European Union's General Data Protection Regulation (EU GDPR), it is designed to protect the processing of personal data belonging to Kenyan citizens and residents ("data subjects").

The Act provides protection of personal data by requiring organizations to obtain consent<sup>166</sup> from data subjects before collecting, using, or disclosing their personal information. The Act's purposes also include the creation of the Office of the Data Protection Commissioner (ODPC) to regulate the processing of personal data and ensure compliance with data protection regulations in Kenya.<sup>167</sup>

The ODPC is also responsible for establishing the legal and institutional mechanism to protect personal data, ensuring that the processing of data is guided by the principles and regulations of personal data protection set out in Section 25 of the Act, and providing data subjects with rights and remedies to protect their personal data from processing that is not in accordance with the Act. The Act grants data subjects various rights, including the right to be informed and opt-out of data tracking, the right to access, correct and delete their personal information, to data portability, and not to be subject to automated decision-making.

Since the enactment of the Act in November 2019, the Government fully operationalized the ODPC as an independent state office under the Ministry of Information, Communications and the Digital Economy, and developed and published four sets of Data Protection Regulations.<sup>168</sup>

### BOX 11 BACKGROUND ON DATA PROTECTION AND PRIVACY IN KENYA

Kenya promulgated its Data Protection Act (DPA) in 2019, giving effect to Article 31(c) and (d) of the Constitution that contains the right to privacy, establishing the Office of the Data Commissioner to regulate the processing of personal data, providing for the rights of "data subjects," and determining the obligations of data controllers<sup>169</sup> and data processors.<sup>170</sup>

In January 2021, a 14-member taskforce, chaired by Data Protection Commissioner Immaculate Kassait was appointed to review the Act, identify gaps or inconsistencies in the law, propose any new policy, legal and institutional framework needed to implement the Act, develop the Data Protection (General) Regulations and train stakeholders and the public on the regulations.

Herein, we provide a brief summary of other laws and regulations that concern consumer privacy and data protection in Kenya.

- » Article 31 of Kenya's Constitution guarantees citizens' right to privacy, which includes "information relating to their family or private affairs unnecessarily required or revealed."
- » Additional protections for telecommunications customers, detailed in the Kenya Information and Communications (Consumer Protection) Regulations from 2010.<sup>171</sup>
- » The 2016 Access to Information Act, which implements Article 35 of Kenya's Constitution that guarantees citizens a right to their information, includes provisions detailing how consumers can access their information held by public and private entities.<sup>172</sup>
- » The 2014 National Payment System Regulations, which enacted the National Payment System Act from 2011, includes a confidentiality provision that prevents payment service providers (PSPs) from disclosing customer information except under specific circumstances.<sup>173</sup> The Regulations further grant CBK the authority to revoke the operating license of PSPs who fail to appropriately protect such information.<sup>174</sup> In the National Payments Strategy (2022-2025) CBK announces that it intends to review the National Payment System legal and regulatory framework in the coming years.<sup>175</sup>
- » In late 2021, the Kenyan legislature granted CBK the authority to penalize digital lenders who were abusing customer information in violation of the DPA, and penalties can include revocation of digital lenders' licensing.<sup>176</sup> These rules are intended to prevent lenders from selling customer information to third parties and disclosing borrower payment status to those in borrowers' mobile phone contacts.

## CBK (Amendment) Act of 2021

Although financial inclusion numbers have risen in Kenya to 84 percent, there has been a consistent decline in financially healthy Kenyans. The 2021 FinAccess Survey found the proportion of financially healthy Kenyans was only 17.1 percent, compared to 22 percent in 2019 and 39 percent in 2016. This has happened concurrently with the proliferation of a wide variety of easy-to-access mobile loans.

The lack of a comprehensive regulatory framework led to risky market practices in digital lending. Since the arrival of digital loan products, a vast amount of research has been conducted on the consumer protection implications of these products and the business practices of those offering these digital products, including aggressive collection measures and improper access to contacts.<sup>177</sup>

The recent introduction of the CBK (Amendment) Act of 2021 and the DPA aimed to address the most egregious data privacy and consumer protection concerns related to digital credit products. The CBK (Amendment) Act of 2021 gives CBK the authority to regulate digital credit providers by introducing licensing requirements. The act also requires digital credit providers to disclose the terms and conditions of their products, seek approval prior to changing their pricing models, and adhere to data privacy requirements.

The CBK (Amendment) Act, 2021 defines a digital credit provider as “a person licensed by The Bank to carry on digital credit business”, which in turn is defined as “the business of providing credit facilities or loan services through a digital channel.”<sup>178</sup>

In March 2022, CBK published new regulations related to digital lending licenses, which gave digital lenders until September 17, 2022 to pursue a license or cease operations. The new regulations aimed to increase trust in the financial system and barred digital lenders from sharing customers’ information with third parties—including credit reference bureaus—without prior consent.<sup>179</sup> As of September 2023, 32 digital credit providers have received a license out of 401 applications, with the review process of the remaining applications ongoing.<sup>180</sup>

Although most digital lenders were unregulated before the introduction of the Act, the majority of digital lending volume and value are provided by a small number of digital credit products from regulated banks, most noticeably the three products listed on Safaricom’s M-PESA mobile money menu: M-Shwari, KCB M-PESA (both savings and loans services), and Fuliza (described as an overdraft service).

## Endnotes

- 1 As used in this report, “conventional data” refers to any data source that is reported or currently accessible through a Credit Reference Bureau (CRB) database. For more information, see [Section 5.2](#) of this report.
- 2 As used in this report, “non-conventional data” refers to any data source that is not reported or currently accessible through a Credit Reference Bureau (CRB) database. Reasons for exclusion have little to do with the data’s predictive strength but are typically related to unknown accuracy, smaller population representation, or data that are not yet digitally consumable. Non-conventional data typically require consumer permission to release the data. Non-conventional data volumes can often represent only a fraction of borrowing activity compared to conventional data volumes. This fractional contribution is often a contributing factor for why the data has not been previously included in the conventional data system. Note that the financial service industry often uses the terms ‘alternative’ and ‘non-conventional’ interchangeably. However, over time the term ‘alternative’ has also conveyed the sense that these data are lesser in terms of predictive value which is certainly not the case for some categories of information. Consequently, throughout the report we use the term ‘non-conventional’ to avoid reinforcing the sense of diminished impact. For more information, see [Section 6.1](#) of this report.
- 3 See, e.g., FinRegLab, *The Use of Cash-Flow Data in Underwriting Credit: Empirical Research Findings* (2019).
- 4 Kenya National Bureau of Statistics, “Micro, Small & Medium Establishments: Basic Report 2016,” September 2016, [https://www.knbs.or.ke/2016-micro-small-and-medium-enterprises-msme-survey-basic-report/?option=com\\_phocadownload&view=category&download=934:micro-small-and-medium-enterprises-msmes-basic-report-2016&id=137:micro-small-and-medium-enterprises-msmes&Itemid=599](https://www.knbs.or.ke/2016-micro-small-and-medium-enterprises-msme-survey-basic-report/?option=com_phocadownload&view=category&download=934:micro-small-and-medium-enterprises-msmes-basic-report-2016&id=137:micro-small-and-medium-enterprises-msmes&Itemid=599).
- 5 Michelle Kempis et al., “Financial Services. : How Small Firms In Kenya Manage Their Finances.,” *Small Firm Diaries*, May 2023, [https://www.smallfirmdiaries.org/\\_files/ugd/b6a8e3\\_ac488d2a91b74b108006804fffb2cf19.pdf](https://www.smallfirmdiaries.org/_files/ugd/b6a8e3_ac488d2a91b74b108006804fffb2cf19.pdf).
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- 8 *Financial inclusion* classifies users of financial services who have active accounts in their own names within the last 12 months with at least one formal or informal financial service provider as financially included. Formal providers include banks, savings and credit co-operatives (SACCOs), mobile phone financial service providers (MFSs), and insurance companies. Consumers who only access financial products and services through informal providers (e.g. groups, chamas, shopkeeper credit, etc.) are classified as informally included. Consumers who do not access any financial products or services from either formal or informal sources are classified as financially excluded, and they typically access finance through their social networks or save their money at home. See 2021 FinAccess Household Survey for more information.
- 9 Jointly conducted by the Central Bank of Kenya (CBK), the Kenya National Bureau of Statistics (KNBS), and Financial Sector Deepening Kenya (FSD Kenya).
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- 11 Kenya National Bureau of Statistics, “Economic Survey 2022,” 438.
- 12 Kenya National Bureau of Statistics, “Micro, Small & Medium Establishments: Basic Report 2016,” September 2016, [https://www.knbs.or.ke/2016-micro-small-and-medium-enterprises-msme-survey-basic-report/?option=com\\_phocadownload&view=category&download=934:micro-small-and-medium-enterprises-msmes-basic-report-2016&id=137:micro-small-and-medium-enterprises-msmes&Itemid=599](https://www.knbs.or.ke/2016-micro-small-and-medium-enterprises-msme-survey-basic-report/?option=com_phocadownload&view=category&download=934:micro-small-and-medium-enterprises-msmes-basic-report-2016&id=137:micro-small-and-medium-enterprises-msmes&Itemid=599).
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- 18 Central Bank of Kenya, Kenya National Bureau of Statistics, and FSD Kenya, “2021 FinAccess Household Survey,” 62.
- 19 Kenya National Bureau of Statistics, “Economic Survey 2022,” 2022, 68, <https://www.knbs.or.ke/wp-content/uploads/2022/05/2022-Economic-Survey1.pdf>.
- 20 It should be noted that the act does not provide a definition of medium-sized enterprises.
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- 23 Note that partial ownership in enterprises is excluded from this number.
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- 25 Kenya National Bureau of Statistics, "Micro, Small & Medium Establishments: Basic Report 2016.". This number equates to roughly half of the Kenyan adult population, as per KNBS Census 2019.
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- 48 Ibid.
- 49 Pew Charitable Trusts, "Banks Are Transforming the Small-Loan Market—And That's Good for Consumers," The Pew Charitable Trusts, June 21, 2023, <https://www.pewtrusts.org/en/research-and-analysis/articles/2023/05/16/banks-are-transforming-the-small-loan-market-and-thats-good-for-consumers>.
- 50 Metropol presentation at FinRegLab Kick-Off Plenary Meeting on May 25, 2023 in Nairobi Kenya. Includes individual consumers and enterprises.
- 51 Interviews with Tier 1 banks.
- 52 Affordability assesses the question "Does the borrower have sufficient funds available to pay their obligations?"; whereas propensity assesses "Which obligations does the borrower choose to pay?".

- 53** See, e.g., FinRegLab, "The Use of Cash-Flow Data in Underwriting Credit: Empirical Research Findings", July 2019, [https://finreglab.org/cash-flow-data-in-underwriting-credit/#:~:text=Empirical%20Research%20Findings%20\(July%202019,%2C%20populations%2C%20and%20products%20studied.](https://finreglab.org/cash-flow-data-in-underwriting-credit/#:~:text=Empirical%20Research%20Findings%20(July%202019,%2C%20populations%2C%20and%20products%20studied.)
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- 60** Republic of Kenya In The High Court Of Kenya At Nairobi Constitutional And Human Rights Division, Petition Nuo E255 of 2021.
- 61** The number of participating institutions for stakeholders in this and following tables is based on a presentation by Metropol at FinRegLab's Kick-off Plenary Meeting in May 2023 in Nairobi, Kenya.
- 62** Interviews with CRBs.
- 63** Interviews with Tier 1 banks and working group discussions.
- 64** Interviews with CRBs and DCPs.
- 65** Interviews with CRBs and WOCCU.
- 66** Interviews with CRBs.
- 67** Central Bank of Kenya, "Publication Of The Credit Reference Bureau Regulations, 2020 And Additional Measures On Credit Information Sharing."
- 68** Trade credit is a form of credit extended by a supplier to a buyer that allows the buyer to purchase goods/services now and pay the supplier at a later moment.
- 69** Hustler Fund. <https://www.hustlerfund.go.ke/>.
- 70** Contribution from Tier 1 banks during working group discussions and interviews.
- 71** This includes companies and services such as Patascore (by Pezesh) and Spin Mobile.
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- 73** Interviews with Tier 1 banks.
- 74** Central Bank of Kenya, "Kenyan Banking Sector Charter," February 2019, [https://www.centralbank.go.ke/uploads/banking\\_circulars/113414645\\_Kenya%20Banking%20Sector%20Charter-2019.pdf](https://www.centralbank.go.ke/uploads/banking_circulars/113414645_Kenya%20Banking%20Sector%20Charter-2019.pdf).
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- 85** Solv has trialed an invoice financing program offered to 700 MSMEs in partnership with eight multinational manufacturing and trading companies and three financial institutions. On the platform and as part of the trial, the MSMEs are able to leverage their relationships with their suppliers to access financing at favorable rates. See for more information: <https://scventures.io/b2b-marketplace-solv-launches-in-kenya-to-unlock-msmes-growth-potential/> and <https://www.capitalfm.co.ke/business/2022/08/solv-kenya-in-supply-chain-financing-partnership-with-msmes-banks>.
- 86** Patasente. <https://patasente.com/>.
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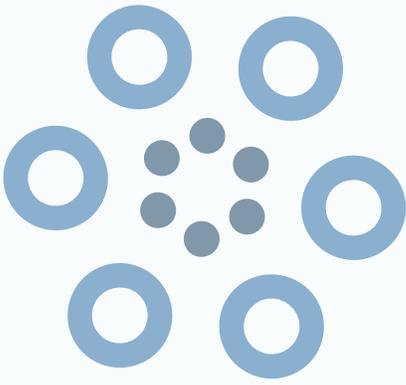
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