GSMA

Financial Health
Addressing Consumer
Overindebtedness in the
Digital Age

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Acronyms and abbreviations

BNPL	Buy now pay later	**FCA**	Financial Conduct Authority
CATI	Computer-assisted telephone interviewing	**ID**	Identity document
		IPA	Innovations for Poverty Action
CEGA	Center for Effective Global Action	**MIC**	Mobile instant credit
CGAP	Consultative Group to Assist the Poor	**MFI**	Microfinance institution
		MMP	Mobile money provider
CRB	Credit reference bureau	**RDD**	Random digit dialling
DCP	Digital credit provider	**RFF**	Responsible Finance Forum
DTI	Debt to income		

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Executive summary

In 2024, the GSMA commissioned a study to understand the digital credit landscape, the extent of overindebtedness among digital credit users and the regulatory frameworks guiding the microcredit sector in Côte d'Ivoire, Ghana, India, Kenya and Tanzania. With the support of GeoPoll, the GSMA conducted a mixed-method study in these five markets that included a literature review, interviews with global microcredit experts, mobile money providers (MMPs) and their digital credit partners and a phone survey with more than 500 borrowers in each market. This report delves into the findings, with a focus on the relationship between digital microcredit and the financial health of consumers.

Overindebtedness is a pervasive social phenomenon in multiple emerging markets. There is no universally accepted definition of overindebtedness due to the complexity of lending and borrowing, which is influenced by national and global financial markets and the financial behaviours and conditions of individuals and households.

While overindebtedness was a consumer issue before the advent of digital credit, it may have been worsened by harmful market practices such as excessive pricing, price shrouding, debt stress, abusive enforcement practices and "push marketing" targeted at historically unbanked, vulnerable communities. The literature review for this study showed widespread concern about such practices, but also found several use cases for digital credit that did not have a negative user experience. The review discovered only three studies on causal relationships between digital credit and financial health, but none of the findings could be generalised beyond the contexts in which they were conducted.

The literature review highlighted an apparent paradox: high demand for digital credit and consumer reports of the benefits of these products, alongside market abuses and reports of deteriorating financial health. Although explorations of this paradox were not found in the literature, the review did uncover a range of products, providers and business models in the digital credit market, making it difficult to extrapolate conclusions from context-specific studies to the market more generally.

The literature review unearthed a dual concern about digital credit: that the abusive, unethical practices of certain lenders can harm consumer well-being, and that such practices might overshadow the potential benefits of an improved digital credit offering, including addressing deep-rooted structural issues that lead to overindebtedness. The review concluded that MMPs may be able to improve credit product offerings and promote consumer welfare if they have a better understanding of different business models, the impact of these models on the financial health of end users and the needs and contexts of end users when designing products.

Ghana and Kenya have the largest proportions of digital credit users at 80% and 54% of all borrowers, respectively; Tanzania is third with 32%, followed by Côte d'Ivoire (30%) and India (2%). However, digital credit cannot be understood in isolation, but rather in the context of consumer debt more generally.[1]

Borrower behaviour varied significantly across the five markets, from infrequent and focussed in India (borrowing once a year from one provider) to frequent and diverse in Kenya (borrowing more than two times a month from multiple providers). Such differences are due, in part, to the unique combination of social challenges, product offerings and regulatory frameworks in each market. Despite the differences, consumers in all markets seek easy applications, fast delivery of funds and low interest rates when choosing a credit provider. The two most common reasons for borrowing in East and West Africa are to cover day-to-day expenses and invest in a business. In India, borrowers also use loans for one-off social or emergency expenses. Most borrowers say they use loans for the same purpose as they planned when taking out the money.

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1   Results of aforementioned consumer survey.

More than half of borrowers in Africa and 38% of borrowers in India struggle generally with loan repayment. Kenya and Tanzania have the highest proportions of delinquent borrowers (86% and 70%, respectively) with multiple loans at various stages of nonrepayment simultaneously. Nonpaying borrowers blame increasing costs of living and loss of income for their failure to repay debt on time. On average, loan repayments consume 15% to 34% of a household's monthly budget. So, all borrowers feel at least some burden of debt repayment, from personal sacrifices to negative changes in their communities. Borrowers with outstanding loans are more likely to report mental health issues, such as anxiety and/or stress compared to borrowers whose loans are paid on time.

In line with the literature review, the survey found parallels between access to digital credit and financial delinquency. In all five markets, borrowers with digital loans are more likely than their counterparts without digital loans to report loans in arrears.

However, digital borrowers are also more likely to (1) self-assess as financially healthy (with the exception of Tanzania); (2) report formal or informal savings; and (3) contribute to their savings at least monthly (with the exception of Tanzania). In two countries (Kenya and India), digital borrowers are less likely to dip into their savings when they need to repay a loan. In the remaining three countries, digital borrowers are only marginally more likely to use savings as a means for credit repayment.

In addition, and in line with a small number of studies identified by the literature review, the survey showed that digital credit had a positive but subjective impact on individuals and households. For example, 67% of digital credit holders in Tanzania, more than 70% in Kenya and India and more than 80% in Côte d'Ivoire and Ghana believe that digital loans helped them to at least resolve their urgent, short-term needs.

The design of this study did not allow researchers to establish whether borrowers with digital loans are more likely to have loans in arrears because they have easy access to digital credit or reach for digital credit as a solution to existing challenges with repaying debt. It is evident from general borrowing trends that overindebtedness is a common feature of borrowers in all five markets, both those with and without digital loans. However, digital credit may be perpetuating chronic overindebtedness and may be related to abusive lending practices associated with overindebtedness, particularly in East Africa.

It is also possible to hypothesise, based on the survey findings, that digital borrowers feel financially healthier than their counterparts without digital loans because (1) they have access to an additional, cash-fast resource for planned and unplanned expenses; and (2) they grow their savings while using loans for routine and unexpected expenses. The study is also a snapshot and does not capture the experience of first-time digital credit users who may have been blacklisted following early use.

Digital credit products are not perceived as an integral part of MMP activities. All MMPs in this study had a separate unit or partner(s) responsible for digital microcredit. In most cases, an MMP must partner with an entity that is licensed to offer credit. While logical from a business model perspective, the experts consulted for the study felt that outsourcing or isolating microcredit operations means that MMPs may not develop the deep knowledge of their consumers necessary to tailor and upsell additional products or have the in-house technical and intellectual capacities necessary to remain ahead in competitive digital markets.

Table 1

Business models for MMPs to participate in digital credit services

Source: GSMA. (2019). Digital credit for mobile money providers: a guide to addressing the risks associated with digital credit services.

Classification	Group 1 Partnership model	Group 2 Mobile money rails model			
	Partnership with prudential institutions	Fintech lenders	Prudential institutions	Payday lenders	Peer-to-peer lending hubs
Business models	MMPs partner with licensed lenders, e.g. banks, microfinance institutions (MFIs), savings and credit co-operatives (SACCOs), etc.	Fintech lenders distribute loans directly via mobile money	Licensed institutions lend directly via mobile money	Fintech lenders distribute payroll loans via mobile money	Platforms that connect borrowers with lenders and distribute loans via mobile money
Group characteristics	• Loans are typically tied to savings accounts • Both institutions are licenced • Integration happens through APIs and/or access to mobile money menu	• Fintech firms and/or banking institutions develop lending platforms/applications that are delivered via mobile. • In markets where credit is not regulated, licensing is not required, as long as these firms do not take deposits from the public. • The service is not integrated into the mobile money menu, but is available through USSD and apps.			

The digital credit activities of MMPs revolve around unbanked, underbanked and vulnerable individuals. Even though MMPs recognise that most of their customers self-identify as informal entrepreneurs, they do not offer tailored, business-oriented digital credit products, which may be a missed market opportunity. MTN Mobile Money has been experimenting with a business credit offering geared towards mobile money agents. However, the agents are likely to be formally registered businesses with business certificates and eligible for formal business loans, which would not be the case for informal businesses.

For MMPs, a loan default is the first and only sign of consumer overindebtedness. Most customer management activities are focussed on preventing default through a combination of (1) investment in artificial intelligence (AI)-driven credit-scoring algorithms, which analyse consumer communication and mobile money behaviour; (2) investment in experimental research to design compelling behavioural nudges; and (3) designing tailored instalment schemes to help delinquent customers repay loans and remain in the network. However, the default rates reported by MMPs remain low and are overshadowed by the massive demand for, and predictable profitability of, microcredit-related revenue.

Currently, MMP digital credit offerings are regulated by national consumer and data protection frameworks, the service provision regulations of central banks and the internal ethical and business standards of MMPs and their partners. Yet, further engagement between MMPs and their respective national regulators – with a focus on data symmetry and the role of the credit reference bureau (CRB) – may help create regulatory environments more conducive to the needs of MMPs and their customers.

Experts consulted for this study pointed out that digital credit products are still in an early stage of development and product design should be expected to evolve. Safaricom's shift from their M-Shwari loan product to Fuliza is one example. Because of the nascency of the digital credit market, there are gaps in understanding the behaviours of both consumers and providers in each country.

Despite the novelty of digital credit, the research identified three groups of consumers already benefitting from digital credit: (1) "pay cheque loan" borrowers who run out of money a few days before they receive their salary and treat digital loans as a financial bridge; (2) consumers taking buy-now-pay-later (BNPL) loans to afford an aspirational lifestyle and improve their social status; and (3) microenterprises in the informal sector that take loans to fund their daily operations. Digital credit has the potential to benefit small and growing informal businesses. However, the lack of comprehensive, longitudinal, multidimensional data prevents MMPs from developing products that meet the needs of this consumer segment. In addition, product development is hindered by limited technical capacities, siloed financial markets and the current volatility of the global economy.

Expert interviews highlighted best practices in preventing and managing overindebtedness linked to digital credit, from regulatory interventions to civil society actions, to supply-side interventions and user-centred product design. The literature review and expert interviews both highlighted the value of "positive frictions" – product design elements aimed at slowing credit disbursement and encouraging customers to reflect on their need for a loan.

Several important trends were revealed by the study. Perhaps the most important is that the digital credit landscape is characterised by a severe shortage of data and data asymmetry. Consumer data is scarce, and collected, stored and analysed by a range of actors in isolation. There are no comprehensive profiles of business models that are providing credit services successfully while also reducing (or eliminating) harmful impacts on consumers. There is no in-depth understanding of overindebtedness as a phenomenon to determine when overindebtedness is harmful to consumers and when it is calculated and productive. Finally, current regulatory and social structures tend to be prescriptive for digital credit providers and somewhat punitive for consumers, and may not provide the guiding principles required to identify and support the most vulnerable populations so that they do not turn to credit in a moment of despair.

The recommendations offered by global experts and industry champions in this study present a promising opportunity for the GSMA and its members to improve data practices and stimulate innovation, progress and the positive social impacts of digital credit.

01
Introduction

As of 2022, 10% of adults worldwide own a mobile money account, with the highest rates of ownership in low- and middle-income countries (LMICs), particularly in Sub-Saharan Africa.[2] The total ownership of digital accounts at regulated financial institutions, including banks, mobile money providers (MMPs) and microfinance institutions (MFIs), is now at 76% of adults globally.[3] While there are still gaps in financial inclusion, digital financial services have spearheaded transformative change, including in the alleviation of poverty, financial and social inclusion, economic growth and many more areas.[4]

Not all digital financial initiatives are equally successful. In the past decade, the financial industry witnessed an unprecedented surge in digital credit offerings, supported by new digital lending platforms, the emergence of diverse digital credit models and steady demand from consumers.[5] Yet, multiple recent studies on the impact of digital credit on the financial health of individuals and households note very modest, subjective gains that are overshadowed by urgent challenges, including increasing rates of overindebtedness, debt stress, price shrouding and overcharging, predatory collections and fraud.[6] With limited proof of the positive impact of digital credit on consumer welfare and growing evidence of consumer protection risks, academics and regulators alike have been calling for more data and insights to "inform the regulation of credit more broadly and reorient attention towards digital credit that enables more productive economic functions."

The GSMA understands overindebtedness can have a severe impact on financial health, described as "a consumer's ability to manage daily finances, meet future financial obligations, maintain financial resilience to shocks, pursue financial goals, and feel confident about their financial future".[7] The GSMA also recognises that financial health is increasingly relevant to MMPs as they enter the rapidly growing digital credit market. This heightens concerns about the potential for overindebtedness among digital

credit consumers,[8] which is one of several consumer risks associated with digital credit, including excessive pricing, price shrouding, debt stress and abusive enforcement practices[9] and "push marketing"[10] targeted at historically unbanked communities.[11]

These concerns have led to market regulation and tempered excitement about the impact of digital financial inclusion. They are also relevant to the GSMA since negative customer experiences of digital credit pose a risk to customer loyalty for MMPs,[12] and overindebtedness can have an adverse impact on national economic objectives, such as financial stability and confidence in the financial system.

Recognising this, ongoing research by the GSMA seeks to understand how MMPs are responding to the challenges of digital credit and overindebtedness, and to support the objective of the GSMA Mobile Money programme to foster accountability, better policy formulation and product development among MMPs, regulators and policymakers. This study aims to provide the GSMA with nuanced, actionable data to help bridge regulatory, economic and operational gaps in the digital credit industry. The study maps digital credit offerings, highlights customer experiences and identifies best practices in consumer protection and digital credit delivery, while offering recommendations and pathways to improve customer experiences and encourage market innovation.

2   World Bank. (2021). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19.

3   Ibid.

4   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. IPA and CEGA.

5   Le, T.D.Q., Ngo, T. and Ngyen, D.T. (2023). "Digital credit and its determinants: A global perspective". International Journal of Financial Studies, 11(4), p. 124.

6   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection.

7   GSMA. (2022). Mobile Money and Consumer Financial Health: Showcasing the Industry's Commitment to Consumer Financial Health.

8   GSMA. (2024). "Financial Health: Addressing Consumers' Over-indebtedness in the Digital Age: Statement of Work".

9   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. IPA and CEGA.

10 Kaffenberger, M. and Chege, P. (3 October 2016). "Digital Credit in Kenya: Time for Celebration or Concern?" CGAP Blog.

11 For example, more than 80% of JUMO's digital credit clients in Tanzania were unbanked as stated in Oppong, K. and Mattern, M. (6 January 2020). "African Digital Credit Goes West". CGAP Blog; Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, p. 21.

12 Defaulting clients leave the network, see, for example, Shema, A. (2021). "Effects of Increasing Credit Limit in Digital Microlending: A Study of Airtime Lending in East Africa". Electronic Journal of Information Systems in Developing Countries, 88 (3), p. 10.

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02
Literature review:
key findings
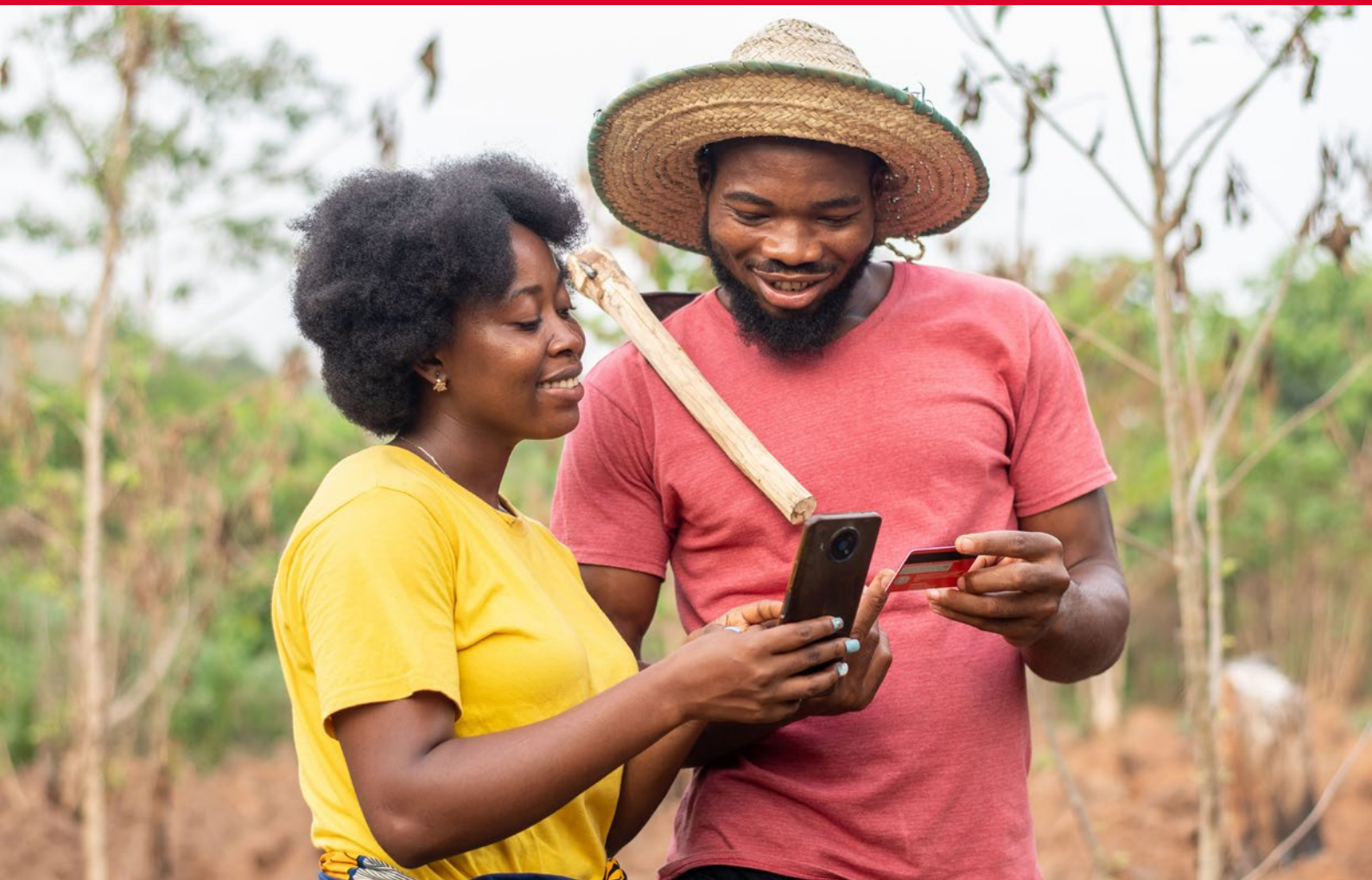
Prior to launching the data collection activities, the research team conducted a review of published and grey literature on overindebtedness and recent studies on the relationships between digital microcredit and borrowers' financial health. The goal of the literature review was two-fold: to place the study within a broader context and identify knowledge gaps the study could address.

2.1
Digital credit: definition, growth, evolution and early concerns

Digital credit is most often defined by its key features: instant loan access, automated algorithmic credit decisions and remote disbursement and repayment.[13]

Selected literature highlights additional, market-specific characteristics of digital credit, including being collateral-free, direct to individuals, targeted at unbanked populations in low-income countries[14] and using nontraditional data (e.g. mobile phone use or past utility bill payments) to assess the creditworthiness of loan applicants.[15]

Innovations for Poverty Action (IPA) and the Center for Effective Global Action (CEGA) distinguish between the first and second waves of digital credit. The first wave, which IPA and CEGA call "mobile instant credit" (MIC) and includes airtime credit, is characterised by novel underwriting and repayment methods and expanded access to consumer loans. The second wave, which is still to come, will aim to improve loan design to enable productive economic activities and focus on innovations in market monitoring and policy reform to protect consumers.[16]

The GSMA views mobile money and digital credit as innovative pathways to alternative trade, asset or inventory financing, "buy now, pay later" schemes or upfront asset lending to fund productive economic activities. Given this anticipated second wave, global experts are calling for more precise terminology to differentiate MIC from new, yet to emerge terms. This terminology would better describe innovative credit products[17] focussed on realising improving consumer welfare.

13   For example, Kaffenberger, M. and Totolo, E. (2018). "A Digital Credit Revolution: Insights from Borrowers in Kenya and Tanzania". Working Paper. CGAP and FSD Kenya.

14   Fernandez Vidal, M. (February 2017). "The Emerging Landscape of Digital Credit". Presented at CGAP's learning event: Customer value & Customer risks: Emerging issues in Digital Credit & Data Privacy, Paris.

15   Robinson, J., Park, D. and Blumenstock, J. (2023). (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04.

16   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection, p. 6. IPA and CEGA.

17   Mazer, R. and Garz, S. (2024). "Fast growth and slow policy: a decade of digital credit in Kenya". Oxford Review of Economic Policy, 40(1), p. 84.

Since the launch of M-Shwari, considered the first digital credit product, digital credit has proliferated rapidly.

M-Shwari was launched in 2012 through a partnership between Safaricom and the Commercial Bank of Africa (CBA). Considered the first digital credit product, M-Shwari drew on the lessons of a Jipange Kusave (JKS) pilot of a small digital loan partly held back as savings, conducted by Signal Point Partners[18] with funding from FSD Kenya and the Consultative Group to Assist the Poor (CGAP).[19] Since 2012, digital credit has proliferated rapidly. In 2020–2021, M-Shwari reported 4 million active monthly users and 17 million loans.[20]

This rise was mirrored elsewhere: 53% of all MMPs now offer digital credit and most report massive growth. By 2019, M-Pawa in Tanzania had 8.5 million users[21] and Orange Bank Africa (OBA) distributed more than 2.4 million digital loans in Côte d'Ivoire.[22] High rates of growth were also reported by non MMP digital lenders. In 2021, Branch and Tala reached 4 million and 6 million users, respectively, with Branch disbursing USD 600 million and Tala $2.7 billion.[23] In 2021, at least 157 digital consumer credit apps were operating in India[24] issuing $2.2 billion in loans.[25]

Big financial backers have also entered the market. Goldman Sachs and Odey Asset management have invested in JUMO,[26] a fintech that has so far disbursed $6 billion in credit through its partnerships with MMPs.[27] There is no shortage of new lenders either. For example, in Kenya, as of March 2023, 32 digital credit provider (DCP) licences were approved and another 401 applications were pending.[28]

Globally, between September 2022 and June 2023, the number of customers who received loans through their mobile money accounts went up by nearly 20%, the cumulative number of loans disbursed rose by 60% and the number of credit products offered by MMPs went up by 73% year on year.[29] This growth has been supported by diverse partnership and operational models, including collaborations between banks, mobile network operators (MNOs), nonbank financial institutions and fintech start-ups.[30] Operational models vary by region; in Sub-Saharan Africa, bank-MNO partnerships are the main vehicle for digital credit.[31] Different configurations of actors also appear to adopt different data, credit risk and pricing models.[32] In 2015, the GSMA reported that 85% of global digital credit services were provided by MNO and bank partnerships[33] (a more recent figure was not found).

18   See: https://www.signalpointpartners.com/.
19   CGAP. (October 2012). "The Jipange KuSave Experiment in Kenya". CGAP Brief.
20   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection, p. 11. IPA and CEGA. ; Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, p. 2.
21   Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, p. 2.
22   GSMA. (2024). The State of the Industry Report on Mobile Money 2024, p. 30.
23   Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, p. 2.
24   Duflos, E., Venkatesan, J., Neelam, A. and Stanley, S. (3 August 2021). "Digital Consumer Credit in India – Time to Take a Closer Look". CGAP Blog.
25   Saritha, M. (2023). "Demystifying the misery behind loan apps in India". Indian Journal of Finance and Banking, 13(1), pp. 104–109.
26   JUMO. (25 February 2020). "JUMO secures US$55 million from new and existing investors". Press release.
27   See: https://jumo.world
28   Mazer, R. and Garz, S. (2024). "Fast growth and slow policy: a decade of digital credit in Kenya". Oxford Review of Economic Policy, 40(1), p. 97.
29   GSMA. (2024). The State of the Industry Report on Mobile Money 2024, p. 45.
30   Orange Digital Ventures. (October 2018). "Credit Scoring and Mobile Digital Credit in Africa".
31   Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, p. 2.
32   Orange Digital Ventures. (October 2018). "Credit Scoring and Mobile Digital Credit in Africa".
33   GSMA. (2022). Mobile Money and Consumer Financial Health: Showcasing the Industry's Commitment to Consumer Financial Health, p. 6.

2.2 Overindebtedness: definitions, history and solutions

The rapid growth in digital credit services presents MMPs with an excellent opportunity to support responsible lending practices and contribute to the financial health of a growing customer base.

In Kenya, early concerns about digital credit were aired both in the media and the research community as early as 2017.[34] In a leading microfinance policy forum, digital credit was characterised as "automated loan sharking" that was "driving financial exclusion".[35] There were also concerns that digital credit would harm financial health and lead to over-indebtedness and financial exclusion through credit reference bureaus (CRBs) "blacklisting" large numbers of digital credit users, multiple borrowing and high interest rates charged by digital lenders. In 2018, CGAP, which funded the first digital credit pilot, proposed slowing the growth of digital credit in East Africa[36] but with seemingly minor impact.

There appears to be little research into whether the industry has improved since these warnings were issued. The literature review provided one example of MTN and JUMO experimenting with clearer loan terms and risk-based pricing to reduce interest rates for lower risk customers in Zambia,[37] but there is little research on the impact of different business models on financial health or overindebtedness.[38]

The provision of digital credit occurs within diverse and dynamic regulatory and market contexts. However, there is only limited research, including political-economy research, on how these factors shape the impact of digital credit on financial health. Some researchers (such as Mazer and Garz) suggest that political-economy factors may have slowed the development of consumer protections in certain markets.[39]

34   For example, Kaffenberger, M. and Chege, P. (3 October 2016). "Digital Credit in Kenya: Time for Celebration or Concern?" CGAP Blog; Wright, G.A.N. (19 August 2017). "Digital Credit – Have We Not Been Here Before With Microfinance?" MSC.
35   Wright, G.A.N. (17 January 2017). "Live Debate from Luxembourg-Digital Finance. Microfinance Policy Forum".
36   Izaguirre, J.C., Kaffenberger, M. and Mazer, R. (25 September 2018). "It's Time to Slow Digital Credit's Growth in East Africa". CGAP Blog.
37   Oppong, K. and Mattern, M. (6 January 2020). "African Digital Credit Goes West". CGAP Blog.
38   For example, see: Faux, Z. (12 February 2020). "Tech Startups Are Flooding Kenya with Apps Offering High-Interest Loans". Bloomberg Businessweek.
39   Mazer, R. and Garz, S. (2024). "Fast growth and slow policy: a decade of digital credit in Kenya". Oxford Review of Economic Policy, 40(1), p. 94.

Concerns about overindebtedness pre-date digital credit but a universal definition is yet to emerge.

Concerns about overindebtedness first arose in the 1980s in response to consumer and personal debt,[40] and has been much-researched over the past 25 years, especially in relation to microfinance, which is highly relevant to digital credit due to shared markets and financial inclusion objectives. For example, one influential study found that "evidence of over-indebtedness points to an increase in household vulnerability due to micro borrowing".[41]

In this body of research, various methods to define and analyse overindebtedness emerged. However, the involvement of multiple sectors in the research complicated analysis, as different studies approached the topic from different perspectives and used an array of metrics. This study uses Jessica Schick's definition of overindebtedness as a condition "when a credit customer is continuously struggling to meet repayment deadlines and repeatedly has to make unduly high sacrifices to meet his loan obligations".[42] Although subjective, the value of this definition is that it emphasises the chronic nature of the problem and the repeated need for sacrifice in meeting repayment obligations, and implicitly acknowledges the psychological and sociological impacts of overindebtedness.[43]

In the absence of a universally accepted definition, Garz et al. report that market actors often adopt "objective" approaches, such as debt-to-income (DTI) ratios or identify overindebtedness by its presumed symptoms, such as defaults. However, these approaches have objective weaknesses. For the DTI ratio, challenges include determining an acceptable ratio, overlooking the possibility that high DTI reflects financial need rather than overindebtedness, as well as difficulties in data collection. Using default rates as an indicator of overindebtedness is also challenging because high default rates can indicate efficient risk pricing rather than overindebtedness and may occur outside scenarios of overindebtedness. At the same time, low default rates could mask refinancing or lack of risk diversification in markets where some default is

natural and healthy. Overindebtedness itself could be symptomatic of deeper social, economic and political issues. Another complicating factor is that in some societies, overindebtedness may both cause impoverishment[44] and be "pervasive and persistent" in some impoverished areas.[45]

Overall, defining debt and overindebtedness is surprisingly complex.[46] Therefore, the impact of digital credit should be understood within the context of an existing social problem and whether it improves, worsens, exploits or does not affect that problem – not whether it is the direct cause of the problem.

New research focusses on the broader impact of digital credit on the welfare and well-being of customers to develop consumer protections.

Two recent analyses, which aim to capture and categorise the range of evidence on the impact of digital credit, conclude that digital credit provides a valuable potential tool for financial inclusion, but that its benefits can be overshadowed by inefficient regulatory responses to abusive practices reportedly pervasive in the sector. The first study by Robinson et al. provides three main lessons: (1) short-term and high-interest loans are "wildly popular" in LMICs; (2) digital loans have modest positive impacts on consumer welfare given their generally small size and that "the worst fears about digital credit have not been realised"; and (3) there are concerns about abusive practices in digital credit markets.[47] The study acknowledges that the evidence base was thin and covered only a few products provided by reputable companies, and "the fact that people are so eager to take out these loans suggests unmet demand and implies that people value access to these products".[48] However, consumer protections are needed due to "high interest rates and opaque loan terms [which] could lead to systematic over-indebtedness and create financial distress". The paper concludes there is an ongoing need for concerted and coordinated future work to better understand the impacts of digital credit on consumer welfare.[49]

40   Marron, D. (2012). "Producing Over-Indebtedness". Journal of Cultural Economy, 5, pp. 407– 421; Gelpi, R.M. and Julien-Labruyère, F. (2000). "Are We Overindebted?" The History of Consumer Credit: Doctrines and Practices, pp. 151–168.
41   Schicks, J. (2010). "Microfinance Over-Indebtedness: Understanding its drivers and challenging the common myths". Centre Emile Bernheim (CEB) Working Paper, 10/048, p. 24.
42   Ibid., p. 6.
43   Ibid.
44   Mutsonziwa, K. and Fanta, A. (2019). "Over-indebtedness and its welfare effect on households". African Journal of Economic and Management Studies, p. 7; D'Alessio, G.and Iezzi, S. (22 February 2013). "Household Over-Indebtedness: Definition and Measurement with Italian Data". Bank of Italy Occasional Paper No. 149, p. 1.
45   For example, rural South Africa. See: Collins, D. (2008). "Debt and Household Finance: Evidence from the Financial Diaries". Development Southern Africa, 25, p. 469.
46   Garz, S. et al. (2020). "Consumer Protection for Financial Inclusion in Low- and Middle-Income Countries: Bridging Regulator and Academic Perspectives", pp. 6–7. National Bureau of Economic Research.
47   Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Pub Policy & Management Paper No. 23-04, pp. 4–5. For a useful overview of the findings, see the CEPR website.
48   Ibid, p. 5.
49   Ibid, p. 22.

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The second study, recently concluded by the IPA Consumer Protection Initiative and CEGA based on research supported by the Bill & Melinda Gates Foundation, also notes rapid sectoral growth, a range of providers and products used primarily for consumption rather than productive investments. The report also juxtaposes the limited benefits of digital credit (e.g. increased subjective well-being and increased resilience) and the lack of evidence that digital credit improves women's economic empowerment, with reports of harms, including an association between digital credit, debt stress, financial health issues and other consumer protection challenges, such as price shrouding, overcharging, predatory collections and fraud. This report discusses overindebtedness caused by digital credit, characterising it as part of "an open debate" and highlighting limited, inconsistent data and evidence.

To bring balance to the debate, both the IPA and CEGA report and Blumenstock et al. are careful to delineate between the three causal studies, which find little to no impacts of digital credit on key human development indicators (HDIs), positive or negative; and the descriptive reports, which parallel the rise of digital credit and decline in financial health. While good academic practice, such an approach leaves a gap. The highly contextual causal studies cannot be generalised, while descriptive studies associating the rise of digital credit with a decline in financial health may conflate other issues. This raises the question of the level of proof needed to enact consumer protections amid widespread reports of consumer harm.

2.3 Best practices in addressing digital credit and overindebtedness concerns

Given widespread concerns about digital credit, analysis of appropriate consumer protections is emerging. These analyses group consumer protection into "supply-side" interventions that fall on MMPs to provide; regulatory interventions at the national, local and global level; and civil society interventions. Proposals for consumer protection appear limited in scope and cross-cutting in nature, with some codified as principles, such as the Guidelines for Investing in Responsible Digital Financial Services. Although the recommendations overlap, none deals with the issue of repayment capacity assessment and/or high interest rates. Similarly, none of the interventions addresses the apparent link between increasing financial inclusion among customer segments where high-risk borrowers are more likely to default due to a greater financial burden – an issue understood in the consumer finance literature.[50] An overview of interventions is provided in Table 2.

The literature review revealed two important narratives. First, the excitement over the rapid increase in financial inclusion that supports global development goals. Second, the failure to establish effective guardrails to manage the risks of innovation as digital credit is rapidly deployed. This includes the use of new technologies that are poorly understood, mounting evidence of harm to vulnerable communities and oversight by a small group of bodies suggestive of conflicts of interest.[51] In response to this second narrative, in 2018, the Responsible Finance Forum (RFF) launched the Guidelines for Investing in Responsible Digital Financial Services,[52] which provide guidance for development finance institutions (DFIs) and other investors. However, industry experts are calling for stronger safeguards in new markets.[53] In particular, (1) formalising rules promptly after enabling innovation to ensure adequate supervision and consumer protection; (2) addressing consumer protection early to avoid imposing different levels of protection for similar products; (3) helping CRBs and data-sharing rules keep pace with digital innovation to prevent competition issues and consumer harm; (4) establishing robust investment in policy architecture and supervisory staffing for proper market monitoring and response to consumer protection risks; and (5) designing a pro-competition policy to ensure fair competition and consumer choice.[54]

This review identifies a small body of literature on consumer protection aimed at shielding digital credit users from abusive practices. However, in a rapidly changing marketplace, it is crucial to understand how overindebtedness and related harms are currently experienced, whether MMPs are implementing protective measures, how their product offerings are changing and what customer experiences look like. In addition to studying overindebtedness, researchers must also examine how digital credit affects or harms household finances and whether it exploits the poor. A more comprehensive set of indicators could facilitate the development of better consumer protection tools, a wider range of credit products and help MMPs manage risks related to negative perceptions of their digital financial services. This sets an agenda for the research, to which this literature review contributes.

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50   For example, see: Edelberg, W. (2006). "Risk-based pricing of interest rates for consumer loans". Journal of Monetary Economics. 53, pp. 2283–2298.
51   Carlsson, H., Larsson, S., Svensson, L. and Åström, F. (2017). "Consumer Credit Behavior in the Digital Context: A Bibliometric Analysis and Literature Review". Journal of Financial Counseling and Planning, 28, pp. 76– 94.
52   Ibid.
53   Mazer, R. and Garz, S. (2024). "Fast growth and slow policy: a decade of digital credit in Kenya". Oxford Review of Economic Policy, 40(1), p. 83.
54   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. IPA and CEGA.

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Table 2

Interventions to reduce consumer harm caused by digital credit

Source: GeoPoll

Supply-side interventions

CGAP recommendations[55]

A comprehensive set of recommendations worthy of review in detail, including (1) clear disclosure of loan terms and conditions, including price and summary screens; (2) ethical marketing restricting unsolicited offers; (3) optimising payment reminders; (4) introducing risk-based pricing to reward best customers; (5) allowing flexibility in payment options; and (6) increasing borrower awareness of data designs.

GSMA recommendations[56]

(1) Changing menu designs to be more user friendly; (2) ensuring transparent terms and conditions accessible via USSD and SMS; (3) providing customer financial education through joint campaigns; and (4) offering clear recourse and complaints mechanisms in collaboration with relevant entities.[57]

IPA and CEGA recommendations[58]

(1) Flexible repayment schedules; (2) introducing short borrowing wait times; (3) providing access to legal representation; (4) enhancing information disclosures; (5) investing in financial education; (6) establishing clear recourse and complaints mechanisms; and (7) monitoring financial health and overindebtedness.

"Positive friction" recommendations[59]

Intentionally slow consumer credit access to enhance decision-making and protection, using (1) additional decision points; (2) functional friction such as checklists; (3) personalised feedback; and (4) alerts.

Regulatory interventions

Vanketesan et al. recommendations

These authors caution that regulations sometimes harm consumers by restricting access to necessary credit. They advocate for a balanced approach that combines regulatory measures with design strategies like positive friction to enhance consumer protection.

Examples of regulatory interventions include (1) the Consumer Duty Guidelines developed by the Financial Conduct Authority (FCA) of the UK, which set higher standards for consumer protection and require companies to prioritise consumer needs; (2) pricing transparency and disclosure rules; and (3) data privacy and security regulations that require active consumer engagement in authorising data sharing with third parties and periodic reminders for consent.

IPA and CEGA recommendations[60]

Promoting increased competition in lending markets.

Regulation examples relevant to study

1 **Kenya:** Central Bank of Kenya (Digital Credit Providers) Regulations 2022[61]

2 **India:** Reserve Bank of India Guidelines on Digital Lending[62]

3 **Tanzania:** apparently not yet developed

4 **Ghana:** Bank of Ghana Draft Disclosure and Transparency Directives for Digital Financial Services and Products[63]

5 **Côte d'Ivoire:** apparently not yet developed

Civil society and cross-cutting interventions

IPA and CEGA recommendations[64]

(1) Development of clear recourse and complaints mechanisms and recourse, which would require collaboration among MMPs, regulators, lenders, consumer protection agencies and other relevant entities; (2) practical approaches to monitoring financial health, overindebtedness and the costs of new loan products; and (3) tracking indicators to prevent price shrouding and overcharging.[65]

Guiding principles for responsible digital credit

(1) Clear legal mandate and regulatory framework; (2) institutional capacity; (3) comprehensive and effective credit referencing systems; (4) transparency and disclosure; (5) industry code of conduct; (6) data protection and privacy; (7) fraud, cybersecurity and resilience; (8) digital financial education and literacy; (9) competition and collaboration; and (10) complaints and redress system.

Market monitoring

Regular market monitoring activities, such as phone interviews, to better understand the market and risks for consumers.[66]

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55   Mazer, R. and McKee, K. (August 2017). "Consumer Protection in Digital Credit". CGAP Focus Note, No. 108.

56   GSMA. (2022). Mobile Money and Consumer Financial Health: Showcasing the Industry's Commitment to Consumer Financial Health.

57   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. IPA and CEGA.

58   Ibid.

59   Venkatesan, J., Mazer, R. and Rice, C. (2024). "Positive Friction for Responsible Digital Lending: A Call to Action". Center for Financial Inclusion. Case studies include (1) Monzo's "gambling blocker" aiding vulnerable consumers; (2) the FCA's enhanced disclosures increasing comprehension; (3) a Mexican study showing longer loan delivery times reducing defaults; and (4) JUMO's improved loan terms comprehension leading to lower delinquency.

60   Ibid.

61   See the Central Bank of Kenya website.

62   See the Reserve Bank of India website.

63   Bank of Ghana. (5 September 2022). Banks and SDIs: Disclosure and Transparency Directives for Digital Financial Services and Products (Exposure Draft).

64   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. pp. 12 and 15. IPA and CEGA.

65   Ibid, pp. 9 and 13.

66   Duflos, E., Venkatesan, J., Neelam, A. and Stanley, S. (3 August 2021). "Digital Consumer Credit in India – Time to Take a Closer Look". CGAP Blog.

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03
Consumer experiences of overindebtedness

To capture the knowledge, attitudes and experiences of digital credit product users, we conducted a phone survey with more than 500 adults in each of the five selected markets: Côte d'Ivoire, Ghana, India, Kenya and Tanzania.

The goal of the survey was to assess overindebtedness in the context of overall financial characteristics (e.g. monthly income) and financial behaviours (e.g. borrowing and saving) of the participating adults and their households. In addition, the survey aimed to capture a detailed picture of the different types of credit products consumers might obtain from different types of providers, rather than focus exclusively on digital products.

To provide a multidimensional perspective of overindebtedness, the survey not only asked whether respondents struggled with repaying their loans in the past 12 months, but also the type and intensity of "suffering" associated with repaying loans, and the impact of multiple delinquencies on communities and lenders. This section captures the most important findings of the consumer survey.

Figure 0

The five selected markets for the phone survey

3.1
Methodology and survey participants

A randomly selected group of 2,693 borrowers from Côte d'Ivoire, Ghana, India, Kenya and Tanzania (more than 500 borrowers per country) took part in the survey. The survey was conducted by phone using the computer-assisted telephone interviewing (CATI) method. The questionnaire was translated into local languages and interviews were conducted by the residents of each country and native speakers of the survey language. The sample was drawn using a random digit dialling (RDD) approach in combination with a simple random selection of potential respondents from GeoPoll's own database. The sample was balanced by age, gender and location, which (combined with the random selection of the respondents) enabled the findings to be generalised to the broader population of borrowers in the five target countries (see detailed methodology in Annex 1).

Based on the sample, today's borrowers are tech-savvy and financially included (see detailed respondent profiles in Annex 2). All respondents in this survey owned a mobile phone and the majority owned a smartphone. In all African countries, more than half of respondents also owned multiple active SIM cards. The latter is a key factor in digital credit. Since digital loans, whether from an MMP or fintech, are always linked to a SIM card, owning multiple SIM cards from multiple MMPs would enable digital credit users to borrow from multiple providers simultaneously. Almost all survey respondents reported having accounts at regulated financial institutions that they use regularly and for advanced transactions, such as making payments, receiving transfers, saving and using digital access points.

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3.2
General trends in the use of microcredit in the five target markets

The average borrower has experience using a range of credit products.

Across the five countries, the average borrower has taken loans from at least two different sources in their lifetime and at least one loan from at least one financial institution in the past 12 months (Figure 1). Borrowing history ranged from three years (India and Côte d'Ivoire) to five years (Kenya and Tanzania), on average.

The combinations of credit sources appear to depend on the business models unique to each market. For example, for borrowers in India, a formal bank is the primary source of loans because of the prevalence of the Unified Payment Interface (UPI) – a real-time, bank-to-bank transfer that has been lauded as a "game changer" for the country's financial system because it enables borrowers to build a transaction history that helps them qualify for a conventional bank loan.[67] Meanwhile, the Kenyan lending market is dominated by digital loans and providers, which is reflected in the strong reliance of Kenyan consumers on airtime overdraft and loans from MMPs. In all five markets, personal networks (e.g. friends and family) are among the top-five sources of loans; in Tanzania, it is the main source of borrowed funds.
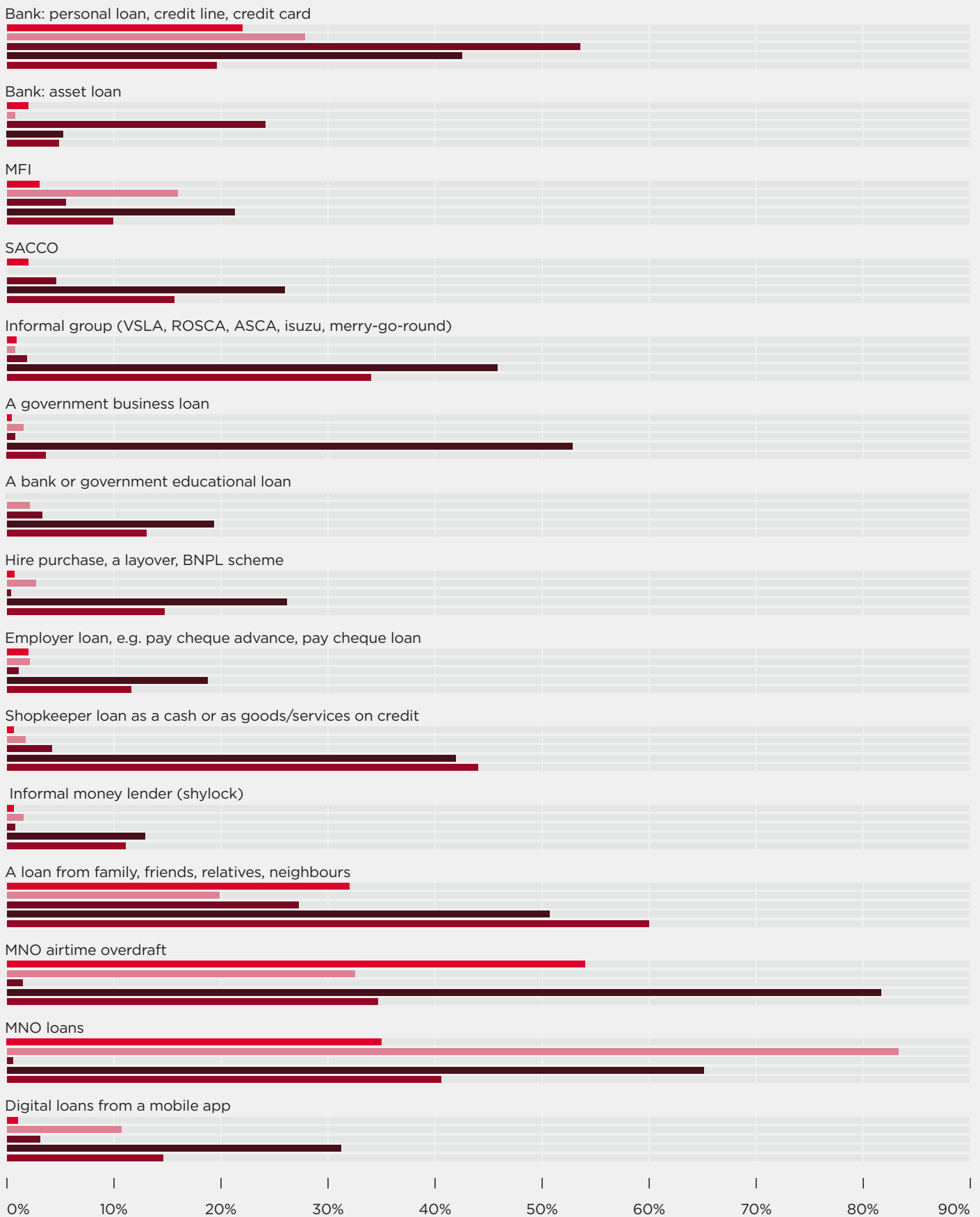
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67   Kapron, Z. (10 April 2023). "Is India's UPI Real-Time Payments System Ready to Go Global?" Forbes Asia.

Figure 1

Borrowers who reported taking at least one loan from the listed lenders (people and institutions) in "the past 12 months", by country

Source: GeoPoll

■ Côte d'Ivoire ■ Ghana ■ India ■ Kenya ■ Tanzania

Bank: personal loan, credit line, credit card

Bank: asset loan

MFI

SACCO

Informal group (VSLA, ROSCA, ASCA, isuzu, merry-go-round)

A government business loan

A bank or government educational loan

Hire purchase, a layover, BNPL scheme

Employer loan, e.g. pay cheque advance, pay cheque loan

Shopkeeper loan as a cash or as goods/services on credit

Informal money lender (shylock)

A loan from family, friends, relatives, neighbours

MNO airtime overdraft

MNO loans

Digital loans from a mobile app

0%   10%   20%   30%   40%   50%   60%   70%   80%   90%

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When choosing a loan provider, most borrowers seek a low interest rate, fast delivery of funds and an easy application process.

Four out of five countries agree on the top three reasons for choosing a credit provider: Low interest rate (Kenya, Tanzania, Ghana, India), fast delivery of funds (India, Ghana, Côte d'Ivoire, Tanzania) and an easy application (Côte d'Ivoire, Ghana, India, Kenya) (Table 3). In selected countries, borrowers also have unique lender preferences among their top three reasons. For example, borrowers in Kenya and Ghana (countries with the highest proportions of digital loans) value flexible repayments, while borrowers in Tanzania look for a lender with good reputation and consumers in India and Côte d'Ivoire seek loans with no collateral.

Table 3

Key characteristics of loans and lenders affecting borrower preferences and choices

Source: GeoPoll

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
Easy application	**46%**	44%	30%	29%	29%
Fast delivery of the money	**35%**	**46%**	**47%**	15%	**35%**
No collateral	**20%**	20%	25%	10%	15%
Don't check CRB	6%	0.8%	10%	4%	7%
Mone delivered to my mobile money wallet	5%	10%	16%	5%	3%
Automatic payments from my mobile money wallet	5%	3%	14%	1%	2%
High credit limit	4%	4%	27%	19%	18%
Low credit limit/restriction on how much I can take out	4%	3%	7%	5%	4%
Flexible repayment	16%	43%	27%	**52%**	32%
Low interest rate	17%	**60%**	**57%**	**70%**	**63%**
Low or no additional loan fees (origination, insurance, etc.)	2%	3%	14%	3%	4%
Loan provider has good reputation	10%	11%	15%	16%	**39%**

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Average borrower profile and borrowing patterns vary significantly by market.

The average borrower in each of the five markets generally falls on a scale from "most conservative" to "most active" (Table 4). Borrowers in India are the most cautious and tend to borrow repeatedly from the same type of lender (a formal bank), take one to two loans a year and build credit history and relationships with a preferred provider. Only 14% of borrowers in India have taken loans from more than one financial institution in the past 12 months and the maximum number of loans during that period was ten.

Kenya is on the opposite end of the scale, with 86% of borrowers taking more than two loans from more than two types of financial institutions in the past

12 months. This amounts to an average of 29 loans and a maximum of 278 loans over 12 months. Airtime overdraft is the most common type of loan in Kenya; however, half of borrowers also take MNO loans, one in three get loans from personal networks and informal groups and the same proportion carries loans from government schemes. Tanzanian borrowers also have dynamic borrowing routines but rely predominantly on multiple informal sources (shopkeepers and family/friends) and only one in four has experiences with credit products offered by MNOs.

While not as conservative as borrowers in India, consumers in the two West African countries (Ghana and Côte d'Ivoire) are also not as extreme as their East African counterparts, averaging four (Côte d'Ivoire) or five (Ghana) loans a year, mostly relying on one type of provider – an MNO – for either airtime overdraft or a mobile money loan. Their second choice is friends and family followed by a formal/regulated bank.

Table 4

Behavioural profile of an average borrower, by country

Source: GeoPoll

	India	Côte d'Ivoire	Ghana	Tanzania	Kenya
Number of different types of lenders they've tried in their lifetime	1 type • Formal bank loan	2 types • Airtime overdraft • MNO loan or family/friends	2 types • MNO loan • Airtime overdraft	3 types • Family/friends • Shopkeeper • Informal group	5 types • Airtime overdraft • MNO loan • Government business loan • Family/friends • Shopkeeper loan
The maximum number of loans they've ever had simultaneously	2 loans	2 loans	2 loans	2 loans	2 loans
The largest loan they've ever received	$4,265.48	$793.63	$435.04	$535.38	$1,507.33
Number of different types of lenders they've borrowed from in the past 12 months	1 type • Formal bank loan	1 type • Airtime overdraft	2 types • MNO loan • Airtime overdraft	2 types • Family/friends • Shopkeeper	3 types • Airtime overdraft • MNO loan • Family/friends
Average number of loans they've taken in the past 12 months	2 loans	4 loans	5 loans	7 loans	29 loans
Maximum number of loans they've taken in the past 12 months	10 loans	90 loans	34 loans	102 loans	278 loans
When they've taken the most recent loan	30–90 days prior to the survey	30–90 days prior to the survey	30–90 days prior to the survey	30–90 days prior to the survey	30 days prior to the survey

Top three reasons for taking a loan, by country
Source: GeoPoll

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
To meet day-to-day personal or household needs e.g. food, transport, rent, utilities	42%	36%		23%	19%
For social expenditure (e.g. burial, wedding, birthday, graduation)			14%		
For medical treatment or a medical emergency	8%		16%		
For education for myself or others		14%		29%	10%
For starting or expanding my own/our household's business (buying equipment, stock, etc.)	5%	22%	17%	20%	24%
For investing in somebody else'es business or in assets (land, bitcoin, shares)					
To make a large personal/ household purchase (e.g. a house or a car)			15%		

Meeting day-to-day needs and building a business are common reasons for borrowing.

A shortage of money to cover day-to-day expenses is by far the most important driver of borrowing in Côte d'Ivoire, Ghana and Tanzania (Table 5). This trend, largely confirmed by the literature review, raises concerns among microcredit experts as the reason for long-term worsening of financial health among borrowers, who might not have a reliable source of income and are at risk of locking themselves in a cycle of debt.

The second most common reason for loans is starting or expanding a business, which is in line with the original aspiration of microlenders to provide unbanked and underbanked populations in LMICs with business capital to encourage entrepreneurship and financial self-reliance. Among other reasons for borrowing, Kenyan consumers take out loans in pursuit of education, which remains highly desirable (especially higher education) due to its promise of a stable job and income. In India, most loans are designated for one-off expenses: medical treatments, social events or aspirational purchases. Almost all borrowers (between 92% in Côte d'Ivoire and 99% in India) report using the borrowed funds for the same expenses as they planned when taking out loans.

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Kenyan borrowers report the most challenges taking loans and borrowers from India report the highest awareness of consumer protection mechanisms.

Because they are taking loans more frequently and from a diverse group of lenders, Kenyan borrowers are the most likely among the borrowers in this study to experience multiple problems when taking loans. For example, 27% were victims of price shrouding, 19% experienced lender harassment and a similar proportion reported being conned. Rogue agents and fake lenders also appear to be a problem in Côte d'Ivoire, but not in other countries.

When experiencing a challenge, Indian borrowers are the most likely, and borrowers from Côte d'Ivoire the least likely, to know about the recourse and protection mechanisms available to them (Figure 2).

Figure 2

Borrowers aware of policies, regulations and institutions aimed at protecting their rights and resolving their concerns, by country

Source: GeoPoll

Côte d'Ivoire · Ghana · India · Kenya · Tanzania
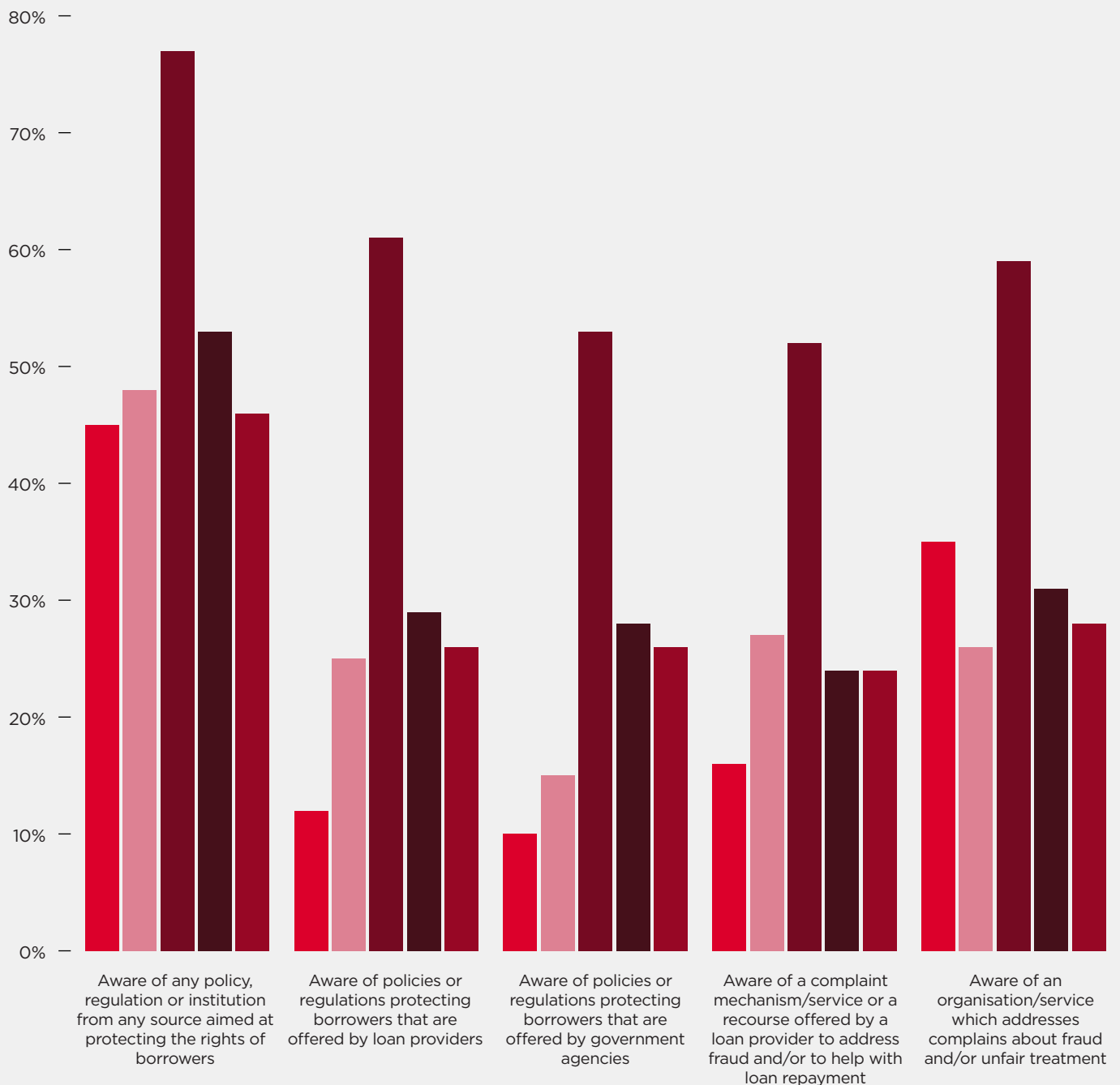
3.3
Symptoms and causes of overindebtedness

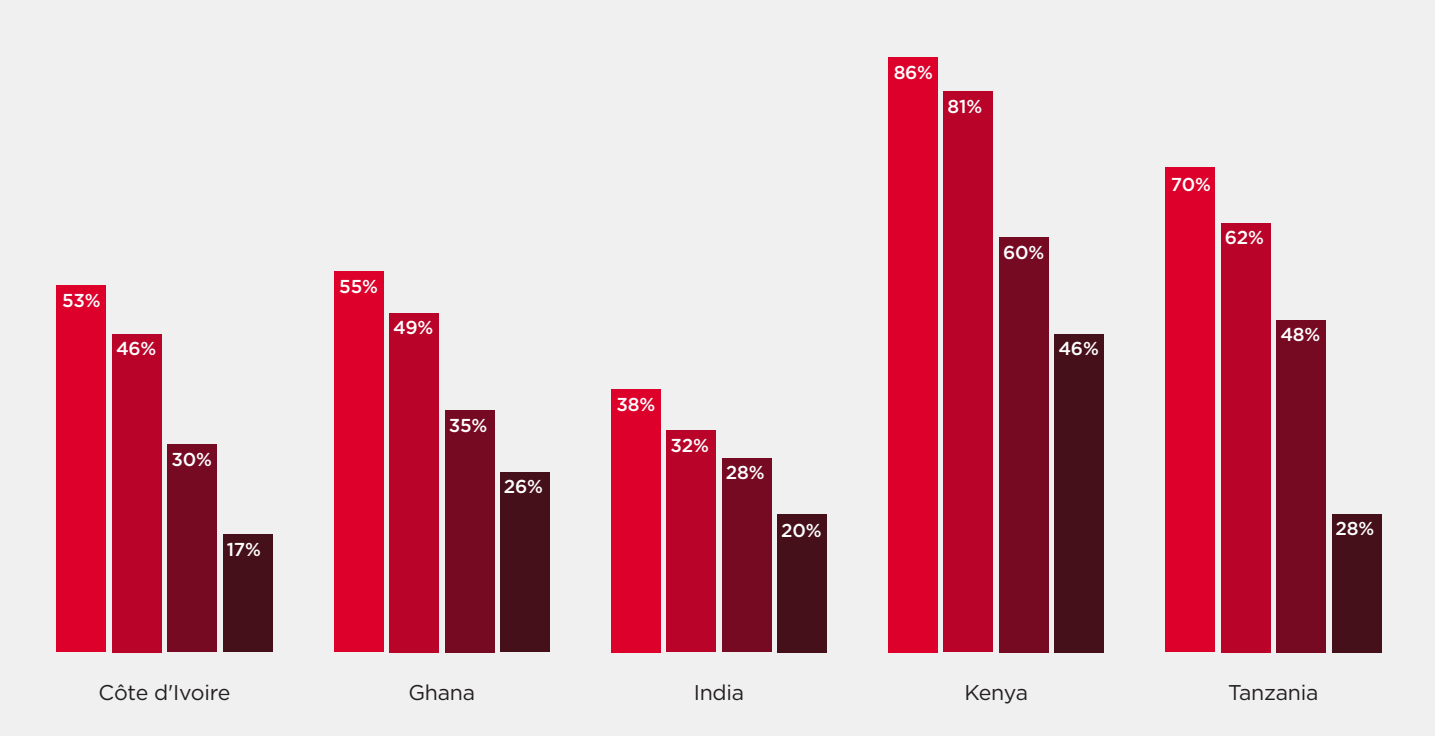## Kenya and Tanzania have the highest proportion of delinquent borrowers.

Eighty-six percent of borrowers in Kenya and 70% in Tanzania report making late and/or partial payments on their loans and/or defaulting on their loans in the 12 months prior to the survey (Figure 3). This is compared to 38% of borrowers in India and just over half in Côte d'Ivoire and Ghana. Furthermore, average borrowers in West Africa and India struggle with one loan at a time. In East Africa, borrowers might simultaneously struggle with multiple loans at various stages of delinquency. For example, in Kenya, an average struggling borrower reports six loans with late or partial payments, of which three have one missed payment and two are in default.

Figure 3

Borrowers who reported each type of loan in the past 12 months, by country

Source: GeoPoll

- Any challenging loans
- Loans with late or partial payment
- Loans with one missed payment
- Loans in default

Country	Any challenging loans	Loans with late or partial payment	Loans with one missed payment	Loans in default
Côte d'Ivoire	53%	46%	30%	17%
Ghana	55%	49%	35%	26%
India	38%	32%	28%	20%
Kenya	86%	81%	60%	46%
Tanzania	70%	62%	48%	28%

Increasing costs of living and loss of income are the main barriers to loan repayment.

The two main reasons for loan non-repayment given by borrowers from at least four of the five countries were loss of household income (by the borrower or another person) and an increase in the cost of living and, as a result, an increase in expenditure on basic needs (Table 6). Increased costs of living appear to affect borrowers from Kenya specifically, with three in five borrowers with unpaid loans saying the increased cost of basic needs leave them with no money to pay off debt.

Indian borrowers are more likely than their counterparts in other countries to report challenges repaying loans related to unethical behaviours of the lender (e.g. price shrouding and fraud) and their own lack of understanding of the loan terms. In general, the challenges reported by borrowers in India are more diverse and relate to lender characteristics, social and personal changes (e.g. a newborn or a wedding), or the lack of financial education compared to borrowers in other countries, whose inability to repay debt is linked to two specific economic issues that led them to take out loans in the first place: insufficient income and high costs of living.

Table 6

Main barriers to loan repayment, by country.

Shown: Borrowers who reported a loan with late/partial/missed payment or in default.

Source: GeoPoll

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
I or somebody else in the household lost the job, or the salary was cut		12%	30%	19%	14%
Increased number of dependents (a newborn, elderly or younger siblings moved in)			24%		
The cost of living increased, I spend more money on basics	21%	33%		58%	30%
Recent civil unrest, protests made me increase the rate of savings			15%		
Somebody borrowed from my phone without me knowing, and I never had the money to repay			15%		
The lender increasd my payments/interest rate without asking			19%		
I did not understand the terms of the loan, I did not know how much I would have to pay			16%		
Other reasons	47%	39%		10%	41%

Côte d'Ivoire, n=286. Ghana, n=304. India, n=339. Kenya, n=440. Tanzania, n=402.

Loan repayment-to-household income ratio is a signal of overindebtedness.

Although borrowers in India take out the largest loans compared to their counterparts in other countries, their loan repayment-to-household income ratio is the lowest among the five countries at 15% – not least because their loans come from formal institutions, which tend to have the lowest interest rates and are capped by the central bank.

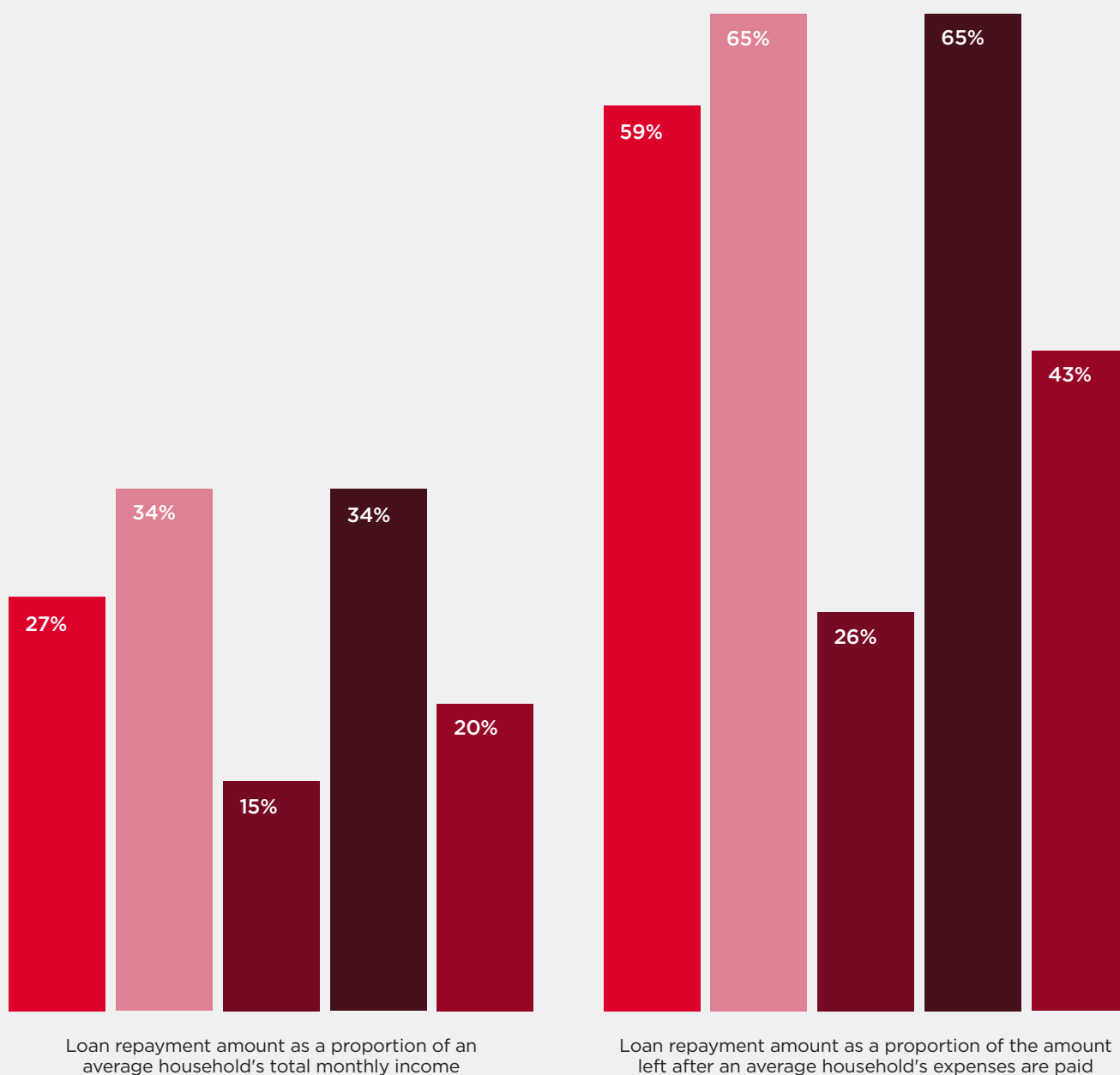In Kenya and Ghana, loan repayments appear to consume the bulk of household funds – 34% of household income and 65% of funds left after paying routine expenses. Based on earlier findings that a portion of loans in these countries is used to supplement funds for routine expenses, the survey supports the hypothesis raised by the literature review that a large proportion of borrowers in Kenya and Ghana (and some borrowers in Tanzania and Côte d'Ivoire) are in a chronic cycle of debt. They must continue taking loans to pay for basic needs because the funds remaining after they make loan repayments are insufficient to cover them. The literature review suggests that this cycle of borrowing – multiple small loans from multiple lenders – often conceals overindebtedness because it helps households avoid defaults but damages their financial health and resilience.

Figure 4

Loan repayment as a proportion of household budget, by country

Source: GeoPoll

Legend: ■ Côte d'Ivoire ■ Ghana ■ India ■ Kenya ■ Tanzania

Left group: 27%, 34%, 15%, 34%, 20%
Loan repayment amount as a proportion of an average household's total monthly income

Right group: 59%, 65%, 26%, 65%, 43%
Loan repayment amount as a proportion of the amount left after an average household's expenses are paid

Borrowers' coping strategies might damage their short- and long-term financial health.

When repaying debt becomes a burden on a household's finances, three common responses across the five countries are (1) forfeiting planned expenses, (2) dipping into savings and (3) working more (at least for a short period) to secure higher income. In Ghana and Kenya, where borrowers may be using digital loans for bridge funding, including to pay existing loans, borrowing from a different source is one of the top five strategies for dealing with overindebtedness. In four out of five countries, reducing "luxury spending", such as eating out, going on vacations and buying less expensive goods and food, also offers an opportunity to save for loan repayment, a sign that some borrowers may be either from the emerging middle class or aspiring to join it.

Borrowers in Kenya report intense suffering from debt and delinquency.

In East African countries, the burden of loan repayments appears much heavier than in West African countries and India. For example, significantly more people in Kenya had to reduce their basic food consumption and sell their belongings to repay loans. In both Kenya and Tanzania, one in five borrowers had to reduce their spending on basic utilities and transport (Figure 5). In addition, almost half of Kenyan borrowers noted a significant crime increase in the community and 60% said their lender's ability to offer loans has suffered, both proportions higher than in the other four countries, linking these negative changes to rising overindebtedness in the country.

Figure 5

Proportion of borrowers who experienced a negative impact on various aspects of their lives because of challenges with loan repayments, by country

Source: GeoPoll
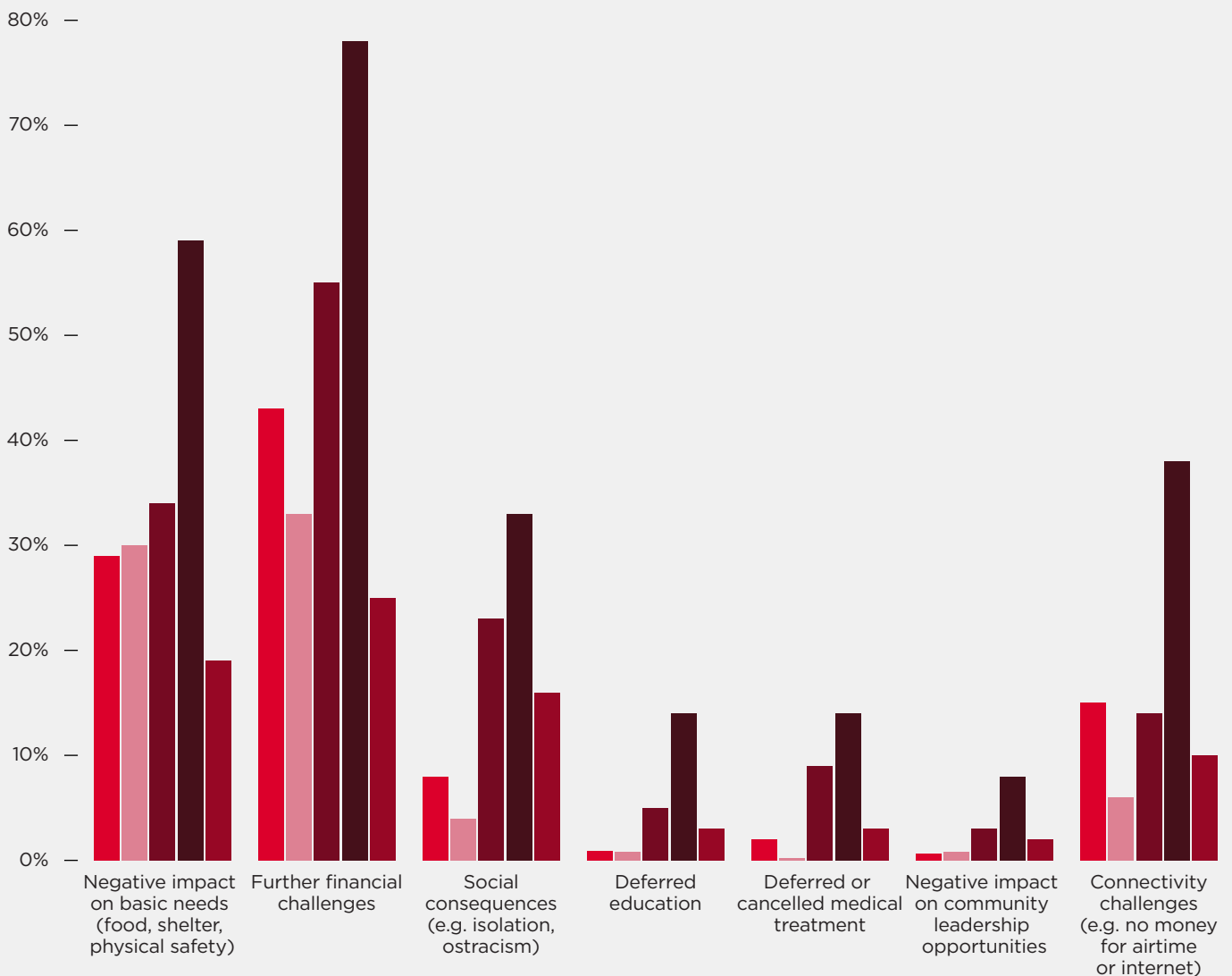
3.4
Overindebtedness and digital credit products

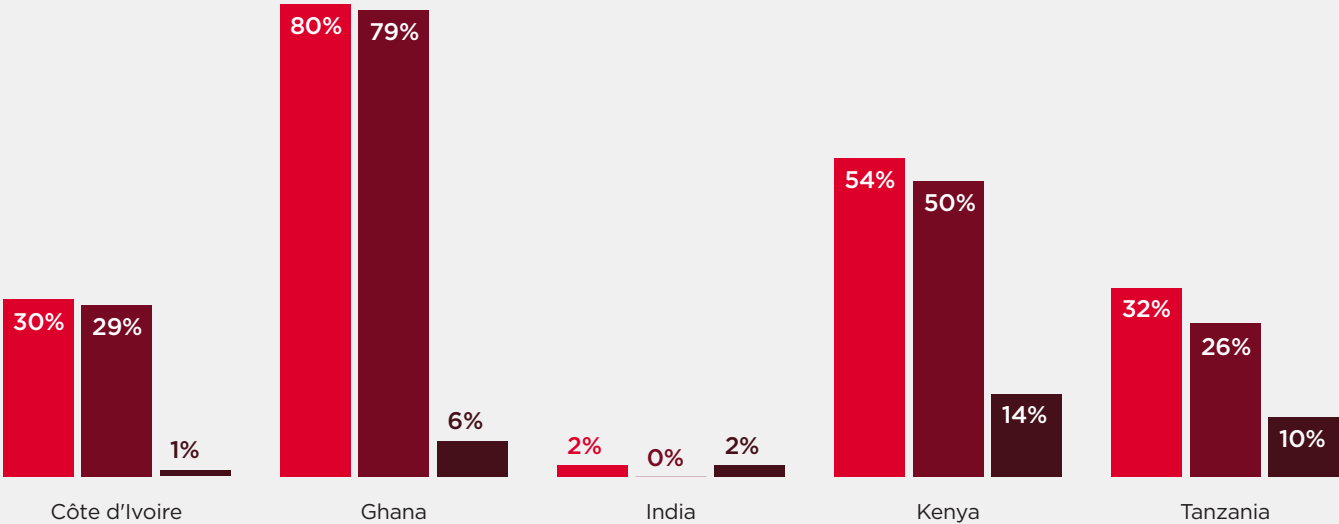## Ghana and Kenya have the highest proportion of digital credit holders.

Eight in 10 borrowers in Ghana have a loan (not including airtime top-ups) from a digital source, with the majority (79% of all borrowers) taking digital loans from MNOs and only 6% from non-MNO, mobile app providers. Kenya has the second highest proportion of digital loan holders among the five countries and the highest proportion of borrowers taking loans from non-MNO digital lenders.

In this study, respondents with digital loans tend to be better educated and older. Depending on the country, there are also variations in gender balance and household income (see Annex 3). However, there are no pronounced cross-cutting trends and most differences are marginal due to overlap in some countries (Kenya and Côte d'Ivoire) between digital credit holders and those who have formal bank loans. It is, however, important to note that this study may not include debtors from the small defaulter group (see section 4 on MMP perspectives), who were reported to a respective CRB and ineligible for a loan in the 12 months prior to this survey.

Figure 6

Proportion of borrowers who have taken a digital loan through a mobile app or MNO in the past 12 months, by country

Source: GeoPoll

■ Total ■ MNO loans ■ Digital loans through a mobile app

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
Total	30%	80%	2%	54%	32%
MNO loans	29%	79%	0%	50%	26%
Digital loans through a mobile app	1%	6%	2%	14%	10%

This study suggests that digital credit has a positive, but subjective impact on consumers.

The literature review highlighted the disconnect between widespread industry concerns about the "harms" of digital loans (triggered by descriptive reports that parallel the rise of digital credit and decline in financial health) and causal studies that found limited to no impact of digital credit on human development indicators.[68] When "modest" impact was identified, it was mostly positive and subjective, focussed on consumers' self-reported feelings, including improved well-being, resilience and confidence.[69]

The outcomes of the consumer survey support the observation of a positive, but subjective impact of digital credit on individuals and households. Forty-three percent of digital credit holders in Tanzania and more than half in the other four countries believe that digital loans helped them with both short- and long-term goals and challenges (Figure 7). In addition, a quarter of borrowers in Kenya, Tanzania and Côte d'Ivoire and about one in five in India and Ghana felt that digital loans helped them to at least resolve their urgent, short-term challenges, although they may not have been helpful in the long run. Notably, 10% (Tanzania) or less said that digital loans made things worse in the long run.

These observations support the conclusion of Robinson et al. that digital loans are effective at addressing unmet demand in the selected markets,[70] which is discussed in more detail on the next page.

Figure 7

Reported impact of digital loans on borrowers' ability to address their challenges, by country

Source: GeoPoll

- ■ Digital loans helped me fix my urgent/immediate challenges and helped improve my situation over time, in the long run
- ■ Digital loans helped me fix some urgent/immediate challenges, but did not help with challenges in the long run
- ■ Digital loans helped me address my challenges over time/in the long run, but they were of limited help with urgent/immediate issues
- ■ Digital loans did not help me fix either urgent/immediate issues nor made things better over time/in the long run
- ■ Digital loans helped me fix some urgent/immediate challenges, but in the long run things only got worse
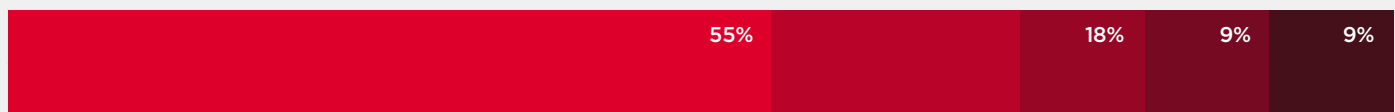- ■ Not sure

Tanzania (n=187)

| 43% | 24% | 20% | 3% | 10% | 2% |

Kenya (n=279)

| 54% | 24% | 9% | 2% | 9% | 2% |

India (n=11)

| 55% | 18% | 9% | 9% |

Ghana (n=416)

| 65% | 17% | 9% | 3% | 4% | 2% |

Côte d'Ivoire (n=155)

| 57% | 26% | 4% | 5% | 3% | 5% |

Tanzania, n=187. Kenya, n=279. India, n=11. Ghana, n=416. Côte d'Ivoire, n=155.

68   Cassara, D., Zapanta, A. and Garz, S. (2024). Mobile Instant Credit: Impacts, Challenges, and Lessons for Consumer Protection. IPA and CEGA.
69   Ibid.
70   Robinson, J., Park, D.S. and Blumenstock, J.E. (3 August 2023). "The Impact of Digital Credit in Developing Economies: A Review of Recent Evidence". KDI School of Public Policy & Management Paper No. 23–04, pp. 4–5. For a useful overview of the findings, see the CEPR website.

Borrowers with digital loans are more likely to report loans in arrears, but they are also more likely to save and (in some countries) be in better financial health.

In all five countries, borrowers who have taken a digital loan (this does not include airtime overdraft) are more likely to report loans in arrears (Figure 8).

However, with the exception of Tanzania, digital borrowers are also more likely to self-assess as financially healthy (Figure 9), which in this study is defined as being very well prepared to manage day-to-day expenses, a financial crisis (e.g. a medical emergency or job loss), a market opportunity (e.g. to expand one's microbusiness), debt and build a secure financial future for themselves and their household.

Figure 8

Proportion of borrowers who have loans with late, partial or missed payments or are in default, by experience with digital providers and by country

Source: GeoPoll

■ Borrowers who have not taken loans from digital providers
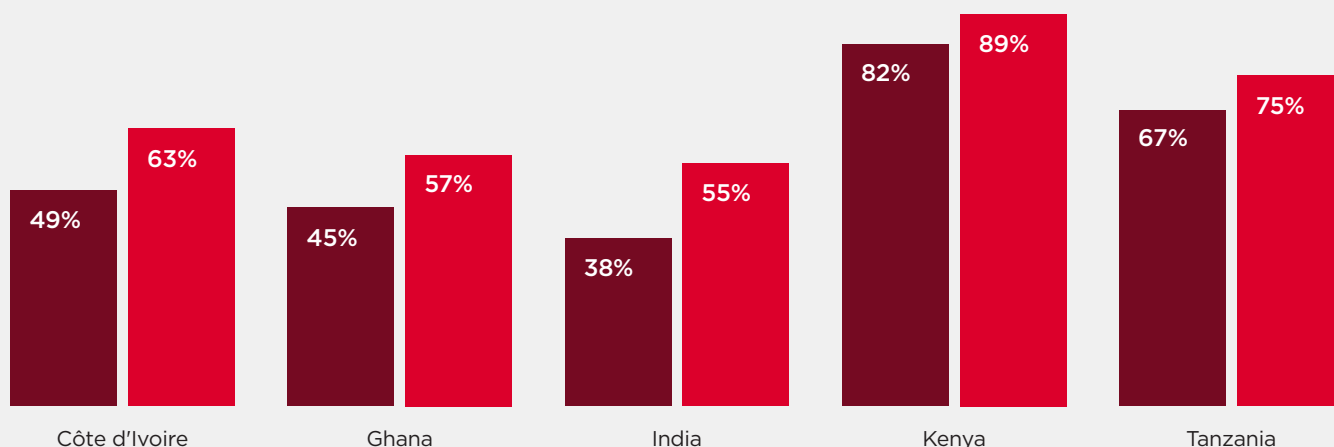■ Borrowers who have taken loans from digital providers

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
Not taken	49%	45%	38%	82%	67%
Taken	63%	57%	55%	89%	75%

Figure 9

Proportion of borrowers who report being financially healthy, by experience with digital providers and by country

Source: GeoPoll

■ Borrowers who have not taken loans from digital providers
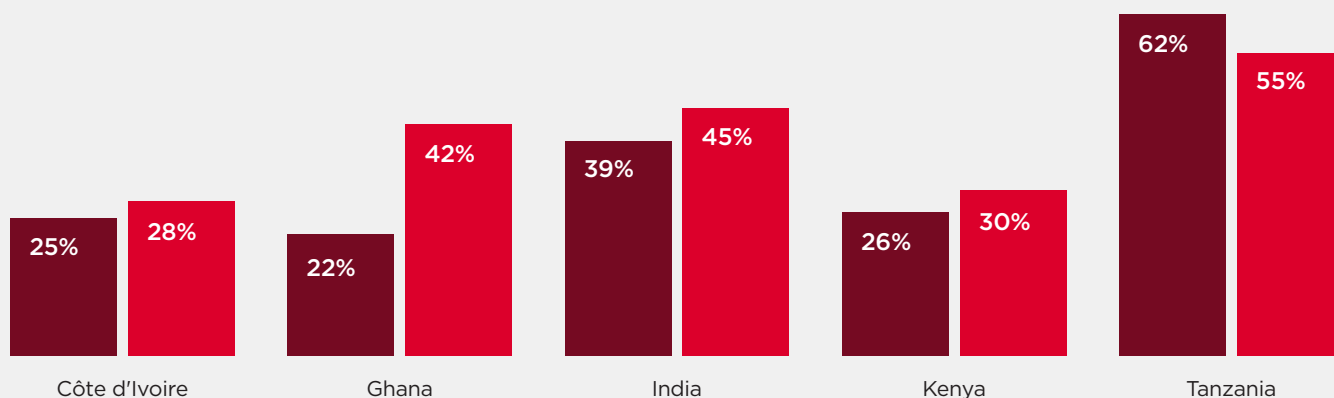■ Borrowers who have taken loans from digital providers

	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
Not taken	25%	22%	39%	26%	62%
Taken	28%	42%	45%	30%	55%

Proportion of borrowers who report having formal and/or informal savings, by experience with digital providers and by country

Source: GeoPoll

■ Borrowers who have not taken loans from digital providers
■ Borrowers who have taken loans from digital providers
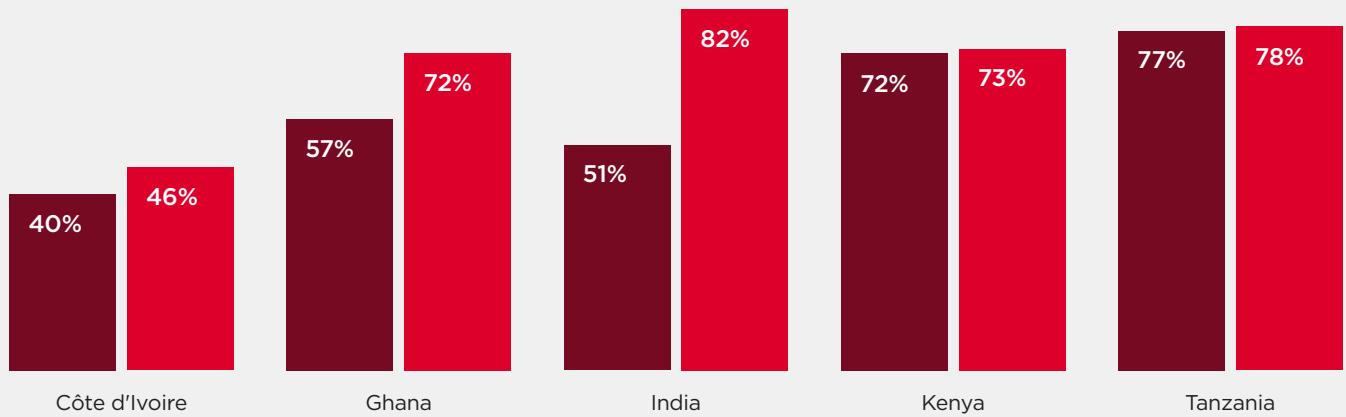
Moreover, digital borrowers are more likely than borrowers without digital loans to report formal or informal savings (Figure 10) and contribute to their savings at least once a month (with the exception of Tanzania). Finally, in two countries (India and Kenya) digital borrowers are less likely to dip into their savings when they need to repay a loan. In the remaining three countries (Côte d'Ivoire, Ghana and Tanzania), digital borrowers are only marginally more likely to use savings as a means for credit repayment.

The design of this study does not allow conclusions to be drawn about whether borrowers with digital loans are more likely to have loans in arrears because they have easy access to digital credit or reach out for digital credit as a solution to their existing debt challenges. However, it is possible to hypothesise that digital borrowers feel financially healthier than their counterparts without digital loans because (1) they have access to two sources of money for planned and unplanned expenses – their own savings and digital loans; and (2) they continue building their savings while relying on loans for routine and unexpected expenses.

Based on concerns raised in the literature review, the survey applied a multidimensional perspective to assessing the relationships between digital credit and overindebtedness and considered these relationships within the financial and social context of each country. The main observation from the literature review is that the use of debt and overindebtedness as a phenomenon is linked to the socio-economic conditions of a particular market and to the financial products and services available to borrowers.

The relationship between digital credit use and financial health appears complicated. On the one hand, digital credit users are more likely to report having loans in arrears and experiencing a higher level of prolonged suffering due to debt, including negative impacts on their basic needs, such as food and shelter. On the other hand, digital borrowers are more likely than those who have not borrowed from MMPs or fintechs to report having savings and making monthly contributions to their savings. In at least two of the five countries, digital borrowers self-assess as more financially healthy. Digital borrowers themselves see many benefits to having access to digital loans, and reports of aggressive marketing and collection strategies are limited and mostly isolated to Kenya. These reports are not common in Ghana, where there are more digital borrowers than in any other country.

In general, the survey reveals that (1) digital loans are accessed primarily by households whose vulnerabilities (demographic, geographic, financial or market conditions) limit their access to formal credit; (2) digital credit plays a very important (albeit not fully understood) role in the finances of vulnerable households, which needs to be studied and classified on a case-by-case basis; and (3) vulnerable households might not be well-informed about typical lending practices and might value the role of digital loans highly enough to overlook or underreport abusive practices.

GSMA

04
Provider perspectives on overindebtedness

This study would be incomplete without data and information on the experiences of mobile money providers (MMPs), the customer-facing entities for delivering digital credit. This section highlights findings based on data and information from JUMO, MTN, Airtel and Safaricom. It also includes the authors' observations of digital credit operations gleaned from communication with MMPs and their implementing partners.

4.1
Key points related to MMPs' lending practices

MMPs could enhance customer understanding and internal coordination by exploring more integrated approaches to their digital credit operations.

In conversations with MMPs, it was clear that digital credit products have great potential to complement core MMP activities. Under the current model, a dedicated unit or partner – like JUMO for Airtel Timiza, KCB Bank Kenya and NCBA Bank for Safaricom's Fuliza and Airtel India's Airtel Payments Bank – focusses on microfinancing and offers a solid business foundation. Experts suggested that by gradually integrating microcredit services in their main operations, MMPs could gain a more comprehensive understanding of their clients, allowing for more personalised product offerings that meet changing customer needs. This approach could also support MMPs in building in-house technical and strategic capabilities, empowering them to respond swiftly to market trends and maintain a strong competitive advantage.

MMPs' emphasis on serving unbanked and underbanked individuals opens opportunities to consider tailored, business-oriented digital credit products for entrepreneurial customers that could support both financial inclusion and business growth.

MMPs' digital credit consumers can be vulnerable and marginalised individuals (e.g. 68% of Timiza users report a household income of less than $5 a day)[71] who are likely to be financially included through mobile money accounts only rather than via traditional financial services like formal banks. This is in line with the mission of microcredit products "to prove that a lack of paperwork and/ or informal economic circumstances does not make people unsuitable for credit or savings products."[72] As a result, MMPs (and their partners) rely almost exclusively on data related to the

71   Key informant interview with JUMO/Timiza Tanzania, 13 September 2024.
72   Ibid.

use of communication (mobile phone calls and data) and mobile money services, although there were mentions of CRB data (e.g. CreditInfo and TransUnion for JUMO/Timiza Tanzania).

MMPs are aware that a substantial proportion of their unbanked and underbanked customers are micro and small entrepreneurs in the informal sector. In 2024, MTN experimented with disbursing business loans to MTN Money agents, who are formally registered as individual entrepreneurs. There is potential in expanding such innovations to include a promising (as discussed by experts in section 5) segment of small informal enterprises in a growth phase.

MMPs' focus on preventing default as a primary indicator of consumer overindebtedness reflects a commitment to proactive customer management and could be enriched with additional consumer insights to help curtail overindebtedness before default occurs.

The microcredit products provided by MMPs in this study offer flexible repayment terms with no "hard" deadlines and with an automatic loan extension for an additional, mostly one-time fee. As a result, it is difficult to impossible for MMPs to detect customers who struggle with repayment until they miss multiple payments or default on their loans. Most MMPs report relatively low rates of default – 2% to 5% for Timiza Tanzania, 4% for MTN Money and just over 8% for Safaricom (an increase from 1.8% reported by Safaricom prior to the COVID-19 pandemic).[73] Such defaults are attributed to economic hardships, unpredictable incomes and low financial household resilience – all typical reasons for the vulnerable households that form the customer base for MMPs' digital credit products.

With a primary goal of preventing default, MMPs and their partners invest heavily in technology and research (in-house for partners and external for MMPs). On the tech side, MMPs employ a range of AI-powered tools to credit score potential customers based on their mobile phone use, airtime purchases and use of mobile money for basic and advanced financial transactions. Once customers are onboarded onto the lending platform, their borrowing and repayment history becomes an additional data point that helps to fine-tune the credit-scoring algorithm. Additional research efforts are put into developing behavioural "guides" and nudges to stimulate repayment. For example, many MMPs experiment with payment reminders via SMS, embed "rewards" (e.g. increased loan amounts and/ or reduced interest) in the borrowing process and share or send nudges about the option to repay a past-due amount in small, manageable instalments. For example, JUMO/Timiza Tanzania developed and tested a smart debt auto-collection strategy linked to customers' mobile money accounts that has proven very successful in preventing delinquency and retaining customers in the network (Figure 11).

Even when customers default, the focus remains on helping them repay the loan and re-establish their eligibility for credit. For example, in a recent dramatic move, Safaricom (backed by the NCBA) offered a 50% discount on their balances to more than 5 million M-Shwari and Fuliza customers, plus an opportunity to repay the remaining 50% in 30 days or less to receive further discounts.[74] Similarly, Timiza Tanzania (operated by JUMO) routinely works with their delinquent customers to set up a repayment plan. According to Timiza, the consequences of defaults are more disruptive for MMPs and their partners, who would face increased scrutiny from regulatory authorities if their default rates were too high, than for defaulters, who might be reported to CRB but not be automatically ineligible for credit. No MMP reported debt collection efforts beyond 1-2-1 contact with delinquent borrowers via SMS or in-person at the MMP office (if the borrower chooses to come), and large-scale but more generic outreach via social media. Direct collections from borrowers, as well as contacts with borrowers' networks, are regulated (and, in most countries, explicitly prohibited) by national data, privacy and consumer protection frameworks and would likely land lenders in "hot water" with both the national communications commission and the central bank.

According to Timiza, the main challenge MMPs and their partners face in their respective markets is "sourcing enough capital to meet the massive demand"[75] for microcredit. Therefore, MMPs do not mind occasionally writing off delinquent loans (as Safaricom did in 2022)[76] because, from their perspective, such expenses are part of the calculated risk and "predictable profitability"[77] and help sustain the social impact[78] of microcredit.

73   Omondi, D. (2 October 2020). "M-Shwari defaults increase fourfold". The Standard.
74   Kivuva E. (25 November 2022). "NCBA writes off Sh11bn Fuliza, M-Shwari loans". Business Daily Africa.
75   Key informant interview with JUMO/Timiza Tanzania, 13 September 2024.
76   Kivuva, E. (25 November 2022). "NCBA writes off Sh11bn Fuliza, M-Shwari loans". Business Daily Africa.
77   Ibid.
78   JUMO. (2023). 2023 Impact Report.

Figure 11

High-level overview of the impact of a smart auto-collection strategy for loan repayment versus manual repayment among Timiza Tanzania customers

Source: GeoPoll

■ Customer retention ■ Disbursement delta

The difference in customer retention and disbursements for different collection strategy customers onboarded between July 2022 and August 2023
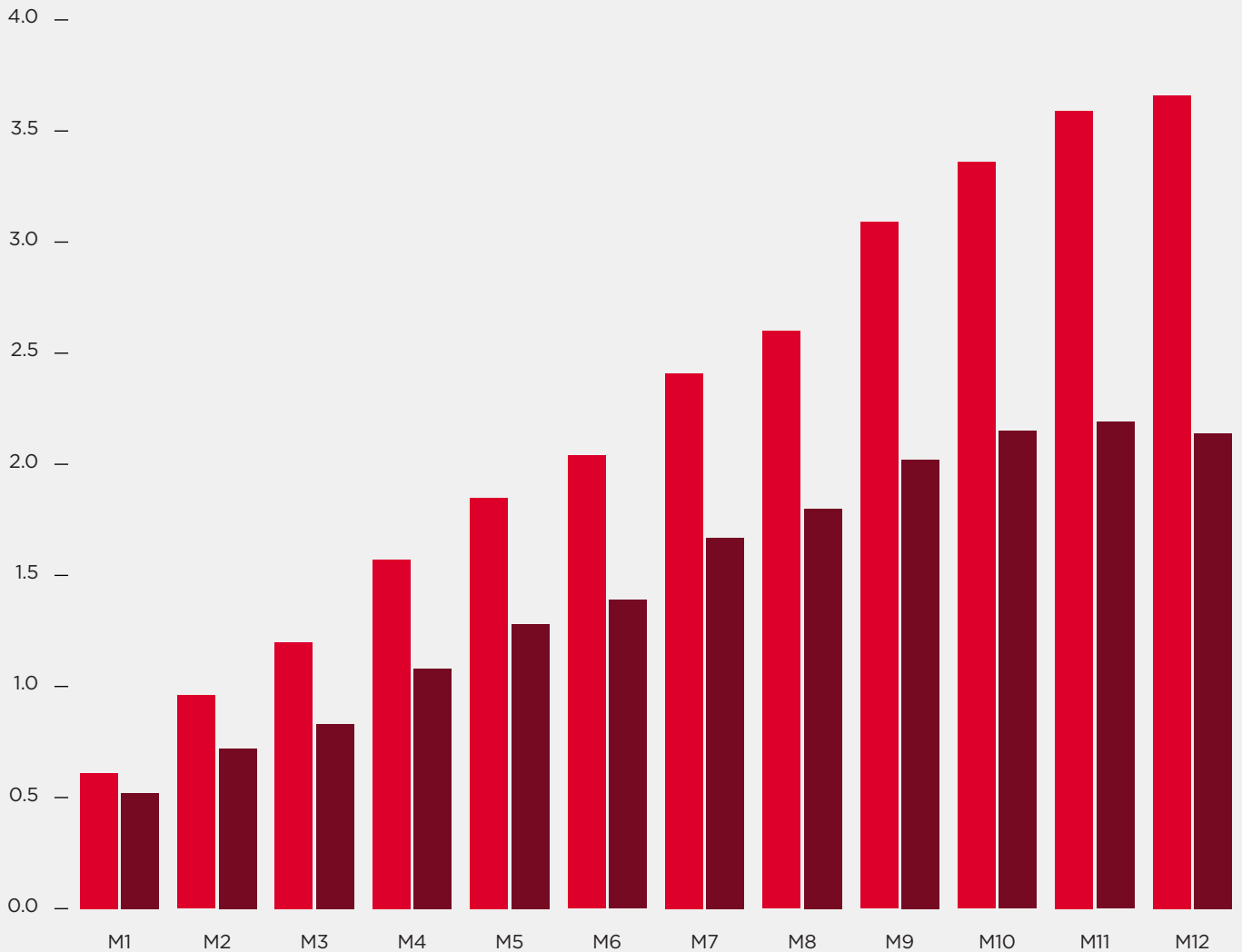
Compared to manual repayment customers, after 12 months customers with a smart auto-collection strategy have:

3.5x better customer retention

2x better disbursement volumes

Customer retention, cumulative disbursements and yields generated from the new smart auto-collection strategy are statistically superior to those from manual repayment customers.

The graph shows the difference between 28,000 customers manual repayments vs 236,000 auto-collection customers onboarded between 1 July 2022 and 31 August 2022. The results are statistically signifiant and show auto-collection Customers (across all customer risk profiles) perform better than manual payment customers.

MMPs and their partners are guided in their lending activities by a trio of frameworks, but there are still gaps in the regulatory environment.

MMP digital credit operations are guided by three distinct regulatory spaces: (1) national consumer and data protection frameworks; (2) their partners (formal banks or non-deposit-taking financial institutions such as JUMO), which are regulated and overseen by the central bank; and (3) their own internal ethical policies and business conduct frameworks. However, these frameworks focus primarily on the responsibilities of MMPs when providing digital credit, and have limited provisions for creating an enabling environment where their digital lending activities can scale effectively.

One of the major regulatory gaps highlighted by MMPs (as well as global experts) is the lack of open data policies, which creates data asymmetry and makes it difficult to impossible to assess the creditworthiness of a customer during the sign-up process who does not have history with them. Even in countries with strong CRB networks (e.g. Kenya has three well-functioning CRBs), getting information from them quickly and in full is challenging. As a result, MMPs must rely on their AI-powered predictive analysis of potential customers, which may not be accurate. All five markets would benefit from close collaboration between MMPs and policymakers in drafting relevant proposals to enhance the role of CRBs in reducing data asymmetry.

Another gap is defining and supporting vulnerable populations. MMPs (and experts) agreed that overindebtedness is, in many cases, driven by desperation, and associated in part with weak national social support systems. One gap in particular is the lack of a defined poverty line in the five countries, which government could use to define a "vulnerability cut-off point", below which households would automatically qualify for social support and relevant upskilling (including financial, digital and general literacy), rather than relying almost exclusively on loans.

Conversations with MMPs and their partners reinforced the notion that for financial organisations operating in the context of data scarcity and asymmetry on the one hand, and "massive", consistent demand for digital credit on the other, it is near-impossible to identify potentially delinquent households before they default on their loans. Therefore, digital credit providers focus on (1) prevention default by offering flexible product designs and behavioural nudges; (2) recovery from default by limiting punitive actions and tailoring repayments to borrower capacity; and (3) putting more resources into data and research. Between increasingly strict regulations and scrutiny from consumer protection agencies and exponentially growing demand for their services, MMPs have a lot to lose, hence, they put extra effort into being "by the book" and educating and supporting their customers where possible. However, most feel that the current regulatory frameworks are somewhat one-sided and, while protecting consumers, may be stifling market innovation. This issue needs to be addressed through closer collaboration between MMPs and their respective regulatory authorities.

05
Expert opinions on overindebtedness

To verify and expand on the findings of this study, and suggest potential solutions for MMPs to leverage high demand for digital credit without harming the well-being of customers, interviews were conducted with experts from the World Bank, UNCDF, Financial Sector Deepening (FSD) Kenya and Swiggy (India) on the current state and potential of digital credit. Each expert took part in a 45-minute virtual interview answering a standard set of questions. The key findings from the expert interviews are discussed here.

5.1
General opinion of experts

Experts agree there is no universally accepted definition of overindebtedness, but they are not sure the industry needs one.

Despite the multiple metrics used in the credit industry to assess the creditworthiness of borrowers, there is still no definition of overindebtedness comprehensive enough to cover the range of use cases or actionable enough to enhance, not complicate, industry practice. The reason is that both borrowing and lending behaviours are complex, and interlinked with other economic, social and personal factors, as is over-indebtedness. It is common in the credit industry to extend judgement on borrowers, especially those unable to pay their loans on time and in full. However, there is a difference between a borrower who takes out a loan to fix a leaking roof to prevent their children from getting sick, a borrower who takes out money to gamble and a borrower who uses credit to buy an income-generating asset. Even if all these borrowers default on their loans, each case is unique and should be treated as such.

According to the experts, it is possible to develop a proxy metric of overindebtedness for research and monitoring and evaluation (M&E) purposes, but will require extensive qualitative exploration followed by in-depth analysis of cases identified as examples of overindebtedness. Meanwhile, new credit use cases are appearing regularly, which may render the proxy metric outdated by the time is it ready for practical application.

Certain business models might be enabling overborrowing and overindebtedness.

The experts highlighted several market characteristics that can stimulate overborrowing and overindebtedness, including operational or functional, technical or technology-oriented and social or socio-economic.

Operational, or functional, characteristics can include a rigid or unaccommodating formal financial system; the lack of reliable, relevant mechanisms for microenterprise financing; the lack of regulations specifically addressing predatory lending; data asymmetry and the lack of open data regulations; and a weak system of CRBs. Technical, or technology-related, characteristics that can lead to overborrowing include the presence of multiple MMPs; the possibility of registering multiple SIMs under the same name; the possibility of registering SIM cards under another person's name without them knowing and/or consenting; and low levels of financial and digital literacy. Finally, social factors include high rates of poverty; the absence of established definitions of vulnerability and associated national social support programmes; low literacy levels; and a weak national ID structure.

For example, in Kenya, borrowers take multiple loans from multiple competing providers through channels only loosely linked to their national ID. Even though Kenya has a strong three-prong CRB system, there is no unified database of borrowers, and lenders have only a narrow view of their customers through their own products. In contrast, Indian borrowers conduct most of their financial transactions (not just borrowing, but savings and payments) with one financial institution – a formal bank – where all their activities, including credit, are linked to their national ID. Similarly, in Ghana, most consumer credit operations (as well as their registered SIM cards) are linked to their national ID, the Ghana card, making it difficult for consumers to "abandon" either their SIM cards or their debt. In summary, overindebtedness is likely due to a combination of a rigid formal financial system, lax regulatory frameworks for mobile communication and digital credit and deep-rooted challenges caused by the failures of existing socio-economic structures.

GSMA

5.2 Current and potential beneficiaries of digital credit

There are four groups of consumers that are, or could be, benefitting from digital credit but would appreciate products more tailored to their needs.

Among individuals taking personal loans, there are two groups most likely to benefit from digital microcredit, at least in the short term: individuals taking a pay cheque or "bridge" loan and individuals buying aspirational products using BNPL schemes (Table 7).

Table 7

Consumer groups benefitting from digital credit: personal loans

Source: GeoPoll

		Bridge/pay cheque loan takers	Aspiring buyers
	Description	People who have a source of income but it is either inconsistent or insufficient to cover their day-to-day expenses and/or save enough to build resilience to financial crises	Middle-class families with a steady, sufficient income through employment who aspire to upgrade their social status and lifestyle and invest in a secure financial future for themselves and/or their children
	Examples	• Employees in salaried formal or informal positions with salaries at or below the minimum wage • Farmers with seasonal income • Seasonal workers	• A salaried employee in a mid-management position who is borrowing money to buy a plot of land "upcountry" or a car to rent out to a ride-share driver • A middle-class household, which is buying trendy appliances or furniture to "fit in" with their desired/aspirational social group
	Countries where this trend is most pronounced	All countries	Countries with an emerging middle class (e.g. India and Kenya)
	Why they take digital loans	• Smooth consumption • Address a financial crisis • Repay another (larger) loan to avoid default and being "blacklisted"	• Investment in improved lifestyle and social status • Investment in own or children's future • Investment in "productive" assets for capital gains, future use or passive income

Table 7

Consumer groups benefitting from digital credit: personal loans continued.

Source: GeoPoll

		Bridge/pay cheque loan takers	Aspiring buyers
	How they use digital credit/ loans	• Borrow small amounts periodically • Repay in portions or in full in an ad hoc manner once the expected/ planned funds arrive	• Most likely to use buy-now-pay-later or layaway payment schemes as well as productive-asset loans • Repay based on a schedule aligned with their salary/passive income schedule
	How they benefit from digital loans	• Avoiding significant ups and downs due to unreliable/insufficient income • Building resilience to adverse events	• Potential financial advancement through access to opportunities in a different social-circle • Mental well-being, improved self-confidence • Securing a stable financial future
	Risks associated with this segment	Chronic debt and overindebtedness	Loss of or reduction in income
	Ways to improve their experience	• Flexible repayment schedule with no penalty for late repayment • Financial education, including budgeting and saving • Affordable smartphones • Access to the formal financial system	• Financial education, including financial planning and investment • Transparency and clarity on the terms and conditions of the loan/borrowing scheme • Loan insurance that covers loss of income

Table 8

Informal businesses benefitting from access to digital loans

Source: GeoPoll

		Informal microenterprises	Informal, growing small enterprises
	Description	Daily traders who borrow to buy stock for their business at the beginning of each working day	Established micro and small businesses that aim to expand their operations by introducing new products/services to their existing/ potential customers and grow their customer base and profits
	Examples	Mama Mboga (East Africa), Uber drivers, Street sellers/hawkers	A video den owner who wants to operate a cybercafé at the same venue and needs a couple of PCs and a printer
	Countries where this trend is most pronounced	Ghana, Côte d'Ivoire, Kenya, Tanzania	India
	Why they take digital loans	Funding daily operations	Investing in business growth (e.g. productive assets, certification, training)
	How they use digital credit/ loans	Borrow daily, take out small amounts early in the morning and repay after they close their business for the day	• Spend some time building their credit history through routine payments, transfers and savings • May apply for a loan several times until they have the amount they need to boost operations • Borrow larger amounts for longer periods and try to repay in a manner that helps them increase their credit limit
	How they benefit from digital loans	They would not be able to run a business without digital credit because their profit margins are thin and can only cover the daily basic needs of their households	A digital loan gives this group an opportunity to gradually expand their business and repay the money from increased profits
	Risks associated with this segment	A financial crisis (e.g. medical emergency, severe weather conditions, civil unrest) may halt their business and drive them to default	Poorly planned or poorly executed business idea
	Ways to improve their experience	Strategies to reduce the portion of profit that goes to loan repayment (e.g. variable interest rates and/or rewards for early repayment)	• Business education and planning • A pathway to the formal financial system

Despite digital credit products targeting mostly individual borrowers, MMPs report that a sizeable portion of their borrowers (e.g. 71% for Timiza Tanzania) identify as micro or small entrepreneurs. The experts consulted for this study believe there are two types of informal businesses already benefitting from access to digital loans (Table 8). However, neither are currently using products tailored to their needs. This means that neither the borrowers nor the MMPs understand or reap the full potential and profitability of these relationships.

The experts suggested that most digital credit users in the five markets are either bridge loan/pay cheque borrowers or informal microenterprises, particularly because other sources of financing are rarely available to them. However, the number of aspiring borrowers and informal, growing small enterprises currently underserved by the microcredit sector will continue to increase in all five markets and, therefore, are worth investing in through research and innovation.

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Digital credit has the potential to address at least some socio-economic challenges, but the industry is still in its infancy.

Digital credit products are often blamed for deepening the "overindebtedness crisis", mainly because digital loans have a higher profile than informal lending, which is deep rooted and prolific in all countries in this study. Very few studies have tried to establish causal relationships between digital credit and financial health, and most have been narrow in scope and show weak to no significant results. The true relationship between digital credit and overindebtedness therefore remains unknown. However, digital credit has significant potential to address at least some of the socio-economic challenges discussed earlier, provided (1) there is a regulatory framework guiding service provision for vulnerable populations; (2) borrowers are supported through financial (as well as general and digital) education and consumer protection; and (3) the market structure encourages data symmetry and open data practices.

Still, digital credit products are at a very early stage of development and testing, and most rely on weak algorithms and insufficient data. This creates a high degree of risk for both lenders and borrowers and leads to higher interest rates for credit products than the market average. Nevertheless, as the sector continues to grow, it is important – for the GSMA and the central banks of the respective focus countries – to encourage research and innovation on the benefits of digital credit for vulnerable populations.

The expert interviews highlighted the novelty of the digital credit sector and that it has coincided with increasingly complex global and national economic conditions. As such, the market is seeing growing demand for digital credit and a more complex integration of loans in household finances. All experts highlight a dire need for more and longer-term research into the impact of digital credit on several aspects of household resilience, financial health and well-being, as most current data and evidence are short term and have very narrow scope. Of particular interest to the experts is the impact of different digital credit business models and loan combinations (e.g. formal, informal, digital, conventional), which could shed light on the nature of overindebtedness, the reasons for it and appropriate metrics to develop better and more relevant multi-prong solutions. The experts also agreed with MMPs that the information asymmetry characteristic to all markets in the study is preventing digital credit from reaching segments with the most potential for productive credit use – small, informal, growing enterprises. Finally, the experts underscored the role of national governments in addressing both regulatory gaps and gaps in social structures that might lead to overindebtedness.

GSMA

06
Conclusions and recommendations

There is an opportunity for MMPs to deliver digital credit more competitively while also ensuring that consumers are protected from the risks of overindebtedness. However, this study revealed several challenges that need to be addressed for MMPs to realise their potential in the microcredit sector.

Observation

There is no universal definition of overindebtedness, nor is there a widely shared understanding of the symptoms and short- and long-term consequences or impact of overindebtedness on individuals and households.

Recommendation

Overindebtedness as a phenomenon is uniquely defined by individual and household characteristics, features of the local microcredit market and global and national economic contexts. A universal definition might therefore lead stakeholders to overlook important nuances. A better approach may be the systematic development of a catalogue of illustrative case studies of overindebtedness, which would provide helpful guidance for MMPs, policymakers and development stakeholders.

Observation

There does not appear to be a comprehensive catalogue of digital credit business models or associated rates of default, overindebtedness and/or loan-related suffering.

Recommendation:

Regulators are well positioned to compile a catalogue of business models in the credit market, both historically and currently. The description of each model might include the type of credit-provision partnership, credit-scoring model, risk rate and pricing (and other factors) to identify the credit terms and practices that are having a negative impact on consumer financial health, and establishing whether high rates of default and/or suffering are a feature of the model or a miscalculation.

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Observation

While research on promising practices to curb overindebtedness is starting to trickle in, there is still not enough benchmarking of best practices in credit terms and practices. This includes (1) identifying industry leaders in digital credit that offer the best credit terms and prioritise customer well-being, financial health and transparency in their practices; (2) evaluating the credit terms and practices of these industry leaders against other providers in the market; and (3) using this analysis to define what constitutes best practices based on the benchmarking results to serve as a model for other credit providers to improve their offerings.

Recommendation

Use this study to stimulate provider interest in adding such benchmarking analysis to their research activities to boost in-house research and development (R&D) and technical skill development. Lead industry-wide conversations to agree on best practices, encourage other credit providers to adopt these best practices to enhance their credit products, improve customer experiences and reduce harm. Update benchmarked standards to reflect changing market conditions, regulatory changes and emerging consumer protection needs.

Observation

A large proportion of the vulnerable individuals and households who drive demand for microcredit may be digitally disadvantaged, with limited to no access to smartphones and the internet. The same group is likely to suffer from low general, financial and digital literacy levels.

Recommendation

It appears that a combination of compulsory financial education, national IDs and cheap smartphones might move vulnerable households closer to improved well-being without pushing them into overindebtedness. Such a combination has already proven effective in India and Ghana.

Observation

In all five markets, microcredit actors noted regulatory gaps that may be stifling innovation, supporting a potentially biased view of MMPs and their partners (microlenders) and stigmatising delinquent borrowers.

Recommendation

MMPs, their financial partners and other microcredit actors need to work closely with policymakers to create a regulatory environment that encourages information sharing among microcredit providers as well as between providers, CRBs, consumer protection agencies and other industry stakeholders. In addition to rewarding data sharing, all five markets need more advanced technological and digital infrastructure to support fast and secure data transfer and analysis.

Observation

The two customer segments with the most potential – aspiring buyers and growing informal small enterprises – appear to be underserved by digital credit products.

Recommendation

In parallel with advocating for regulators to promote data sharing, MMPs can work with financial inclusion stakeholders to identify and explore relevant data and data sources, including data collected by financial inclusion organisations, central banks, national statistics agencies and development agencies supporting informal entrepreneurs. This data will inform metrics on financial behaviours that can help tailor credit products to these two underserved customer segments.

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07
Annexes

Annex 1:
Study methodology

This study had three key phases – Immersion, Discovery and Validation – as described in Table 9.

Table 9

Immersion, Discovery and Validation phases of the study

Source: GeoPoll

Immersion

RESEARCH OBJECTIVE
Generate nuanced, country-specific overviews of the digital credit landscapes in Côte d'Ivoire, Ghana, India, Kenya and Tanzania

OPERATIONAL OBJECTIVE
Inform the design, hypotheses and tools for the Discovery phase of data collection

Data collection activities	Description	Selection/recruitment criteria	Quantity
Expert interviews	45-minute in-person and phone interviews	Selected experts represented the following sectors: • Financial inclusion • Digital financial services • Digital credit Organisations represented by the experts included: • Financial Sector Deepening (FSD) Kenya • UNCDF • The World Bank/CGAP • Swiggy/Airtel	4 expert interviews
Interviews with local providers	45-minute in-person and phone interviews	Local mobile communication and/or MMP or local provider of digital credit. Organisations included: • JUMO/Airtel Timiza • MTN Mobile Money • Safaricom (additional literature review)	2 interviews and additional literature review
Literature review	A rapid systematic review of the following documents: • Peer-reviewed publications • Grey literature (programmatic, evaluation and funder reports) • Relevant national laws, policies and regulations • Relevant operational documents from service providers • Best-practice case studies	• Most recent regulations, policies and laws • Academic and programmatic documents published in the past five years • Available from or endorsed by reputable, validated sources	1 literature review with country-specific deep dives

Discovery

Generate data and insights on the factors contributing to overindebtedness and the ways to curb it through an integrated strategy

Collect robust, quality data to address project objectives

Data collection activities	Description	Selection/recruitment criteria	Quantity
A national survey of digital credit users	• Adult (18+ years) users of digital credit products/services in each country • CATI survey • 25 to 30-minute interview	• Respondents were (1) randomly selected from the GeoPoll database of mobile phone owners; (2) recruited via the RDD method; and (3) filtered for those who used digital credit in the 12 months prior to the survey • All respondents were compensated for their airtime changes and their time	1 survey with n=500+ respondents per country n=2,693 interviews total

Validation

Describe best practices put in place by service providers, regulators/policymakers and other players to curb overindebtedness

Verify accuracy and validity of the insights with local and international experts and define the generalisability of the findings to the population of the study's five focus countries

Data collection activities	Description	Selection/recruitment criteria	Quantity
Expert feedback	• The same experts who were engaged in the Immersion phase were offered to review the findings of the study and provide their feedback, clarification and questions	• The same experts who took part in the Immersion phase	Several 1–2–1 feedback sessions
Benchmarking and best practices review	• As part of the discussion, experts were asked for examples of best practices in the provision of digital credit in the five countries in this study and globally • Best practices/case studies were analysed to: (1) identify common success factors; and (2) compare and contrast best practices to existing practices in the target markets to identify gaps and recovery strategies	• The criteria for selecting best practices were proposed by the experts and mainly focused on tangible improvements to the financial situation of borrowers	Multiple case studies as presented in the literature review

Quantitative data collection: CATI survey

Questionnaire design

The questionnaire in this study was designed based on the literature review and expert interviews. The questions were grouped into eight thematic blocks: (1) respondent eligibility requirements; (2) history of using mobile communication, financial services and digital financial services; (3) history of credit use and overindebtedness; (4) awareness of consumer protection frameworks and recourse options; (5) impact of overindebtedness on the individual and household; (6) impact of overindebtedness on the community; (7) impact of overindebtedness on the lender; and (8) respondents' demographic information and household description. Selected experts and the GSMA team were consulted throughout the questionnaire design process.

Translation

Once finalised, the survey tool was translated into the following languages, by country:

— Côte d'Ivoire – French

— Ghana – English

— India – Hindi

— Kenya – English, Swahili

— Tanzania – Swahili

All translations were performed by qualified translators and back translated for verification. Both the original and back translations were done by native speakers of the selected languages and fluent speakers of English. Any inconsistencies or confusions in translations were addressed during back translation and during the piloting of the questionnaire in each country.

Scripting and testing

Once the tool pilots was complete, the questionnaire was scripted into GeoPoll's platform following a strict process to minimise the risk of errors. The questionnaire was first scripted in English for a series of pretests/dummies to simulate all possible scenarios. Once the English version was finalised, the local translations were inserted through a simple and quick procedure in Excel. The local versions were retested to ensure complete synchronisation with the English script. The pretest included at least 10 interviews per country with an equal split between males and females.

Sample size

GeoPoll teams conducted a total of n=2,693 CATI interviews split by country as follows: Côte d'Ivoire – 542; Ghana – 514; India – 547; Kenya – 513; and Tanzania – 577.

Sampling approach

GeoPoll built the sampling frame using its SmartMatch RDD methodology and the database of nearly 300 million mobile numbers within the GeoPoll platform. GeoPoll followed a strict protocol to formulate a list of the Mobile Station International Subscriber Directory Numbers (MSISDNs) and determined the market share of each mobile provider to randomly generate lists of unique numbers that included numbers from each telecom network. When implementing surveys, GeoPoll also verified variables like age, gender and ADM1 location by asking the respondent to self-report when completing a survey.

Quality control mechanisms

GeoPoll has automated and manual quality control systems in place to identify challenges that may arise during data collection, analysis and reporting. These mechanisms allow GeoPoll to address issues quickly and resolve matters that arise when using the GeoPoll platform. In this project, GeoPoll implemented quality control at every stage of the research process, including:

— **Questionnaire design and scripting.** The GeoPoll team reviews the flow of the research questionnaire to ensure questions are comprehensive, but also straightforward and direct. After scripting the questionnaire, the GeoPoll team and local call centre managers systematically test the flow of the questionnaire in each local language to ensure the script matches the questionnaire, all skip logic is operating correctly and the length of interview meets expectations.

— **Interviewer training.** For CATI surveys, all interviewers go through an extensive, project-specific training that includes graded practice interviews, answering difficult respondent questions and more. CATI calls are also recorded and reviewed for compliance.

— **Automated and manual data control checks.** GeoPoll's platform automatically checks that answers fall within expected ranges and match provided options, and flags unusual response patterns, such as straight lining or satisficing. Before data is delivered to a client, GeoPoll's research team performs manual data cleaning and quality control checks, including removing duplicates, identifying outliers, removing nonsense answers, categorising open-ended answers and ensuring all answers are coded properly.

- **Call recording.** All GeoPoll interviews are audio recorded (with respondents' consent), where possible, to directly observe interview quality. During pretesting, GeoPoll tests audio capture before data collection. In cases where audio capture is not possible or advisable (e.g. surveys covering sensitive topics or in sensitive contexts), interviews may not be recorded for respondent trust and safety.

- **Callbacks.** In cases where it is not possible to verify data quality by listening to call recordings or where the quality assessment is inconclusive, GeoPoll conducts call backs, i.e. a supervisor or member of the quality control team calls the respondent and asks five to seven key questions to verify the answers.

- **Quality control dashboard:** GeoPoll's Quality Control Dashboard provides a visual representation of survey performance metrics, enabling GeoPoll to track both survey and individual interviewer performance for CATI and computer-assisted personal interview (CAPI) surveys. GeoPoll tracks metrics including completed interviews per day, refusal rates, ineligible rates and length of interviews.

Each of the quality assurance measures discussed above has been developed so that GeoPoll can proactively avoid or immediately address data quality concerns before or during projects as needed.

Data analysis

Quantitative analysis was performed using SPSS software and included a range of bivariate and multivariate analyses, as relevant. Due to the limited number of qualitative engagements as well as time constraints, qualitative data were coded and analysed manually.

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Annex 2:
Consumer survey respondent profiles

Category	Subgroup	Côte d'Ivoire	Ghana	India	Kenya	Tanzania
Total number of respondents		542	514	547	513	577
Gender	Male	58%	52%	50%	54%	46%
	Female	42%	48%	50%	46%	54%
Age	18–24	23%	19%	8%	21%	23%
	25–34	32%	22%	47%	31%	27%
	35–44	30%	21%	33%	19%	25%
	45–54	11%	20%	10%	13%	19%
	55+	5%	18%	2%	16%	16%
Location	Urban	47%	51%	58%	43%	46%
	Rural	53%	49%	42%	57%	5%
Mobile phone	Owns a mobile phone	100%	100%	100%	100%	100%
	Owns a smartphone	81%	88%	89%	75%	61%
	2+ active SIM cards	91%	62%	46%	84%	92%
Financial service users	Financially included via a regulated financial institution (bank, MFI, SACCO, mobile money)	96%	87%	92%	89%	95%
	30-day active user of regulated financial institution	66%	74%	69%	85%	84%
	Advanced user of regulated financial institution (used an account for saving, making/receiving payments, etc.)	86%	81%	85%	87%	89%
	Used at least one analogue point for financial services (e.g. a banking or mobile money agent)	95%	98%	60%	93%	97%
	Used at least one digital point for financial services (e.g. an app or a website)	6%	35%	30%	47%	22%

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Annex 3:
Profiles of users and non-users of digital credit services

	Côte d'Ivoire		Ghana		India		Kenya		Tanzania	
	User of digital credit	Non-user of digital credit	User of digital credit	Non-user of digital credit	User of digital credit*	Non-user of digital credit	User of digital credit	Non-user of digital credit	User of digital credit	Non-user of digital credit
Total number of respondents	**161**	381	**416**	98	**11**	536	**279**	234	**187**	390
Gender										
Male	61%	57%	50%	61%	18%	51%	58%	48%	47%	45%
Female	39%	43%	50%	39%	82%	49%	42%	51%	53%	55%
Other/refused	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0%
Age										
18–24	22%	23%	20%	15%	18%	8%	15%	28%	32%	19%
25–34	30%	33%	20%	30%	36%	47%	34%	28%	27%	27%
34–44	32%	29%	21%	22%	45%	33%	20%	17%	21%	27%
45–54	13%	10%	20%	17%	0%	10%	14%	12%	17%	19%
55+	3%	5%	18%	15%	0%	2%	17%	15%	4%	7%
Location										
Urban	55%	43%	49%	60%	64%	58%	48%	38%	50%	44%
Rural	45%	57%	51%	40%	36%	42%	52%	62%	50%	56%
Mobile connectivity										
Owns a smartphone	86%	79%	87%	93%	100%	88%	81%	68%	74%	55%%
Owns 2+ SIM cards	91%	91%	62%	61%	82%	45%	87%	80%	96%	89%
Work and income										
Working	83%	80%	85%	92%	82%	67%	85%	80%	87%	91%
Average monthly income (USD)	$338.71	$312.38	$285.62	$353.46	$572.88	$556.38	$280.34	$262.52	$169.98	$175.98
External payments or remittances	65	71	44	54	73	54	51	45	66	52

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	Côte d'Ivoire		Ghana		India		Kenya		Tanzania	
	User of digital credit	Non-user of digital credit	User of digital credit	Non-user of digital credit	User of digital credit*	Non-user of digital credit	User of digital credit	Non-user of digital credit	User of digital credit	Non-user of digital credit
Education										
Below secondary	38%	48%	13%	18%	27%	37%	26%	29%	26%	36%
Completed secondary and above	62%	52%	87%	82%	73%	63%	74%	71%	74%	64%
Household composition										
Average household size	5.6	5.5	5.7	6.0	5.6	5.2	5.8	5.9	5.7	5.6
Has minors (<18)	75%	77%	58%	60%	27%	64%	71%	71%	65%	72%
Has elderly (60+)	16%	14%	19%	16%	18%	27%	13%	9%	17%	17%
Marital status										
Single, never married	44%	44%	43%	49%	18%	16%	34%	37%	34%	28%
Married or cohabitating	53%	51%	51%	41%	82%	80%	58%	57%	58%	61%
Divorced, separated, widowed, other	3%	5%	6%	10%	0%	4%	8%	6%	8%	11%

*The number of digital borrowers (n=11) is less than 50, therefore, all percentages are provided for reference only and should be treated with caution.

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