

High
Volume
Payments

**Driving Digital Financial Services
through High-Volume Payments**

Acknowledgements

This report is part of a series of publications aimed at addressing the global learning agenda of the UN Capital Development Fund (UNCDF) programme MM4P. The learning agenda includes four areas relevant to digital finance, namely customer adoption, distribution, high-volume payments and partnerships for products and delivery. This report focuses on the prerequisites for high-volume payments to drive adoption and usage of services.

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ABSTRACT

The future success of inclusive digital finance depends on finding better and more affordable uses for digital wallets that will encourage low-income customers to use them regularly and repeatedly. High-volume payments (HVP) have gained industry attention as a means to drive or diversify usage, particularly among low-income customers. To better understand the prerequisites to implement HVP digitally and to unlock the opportunity of digital finance, the UN Capital Development Fund (UNCDF) has sought greater clarity on the requirements necessary for HVP to drive active account usage as well as the roles and activities of different actors involved in the digitization effort. This report combines the key observations, hypotheses and recommendations from this research. It draws on information available and insights from projects that UNCDF has implemented with partners between 2015 and 2017.



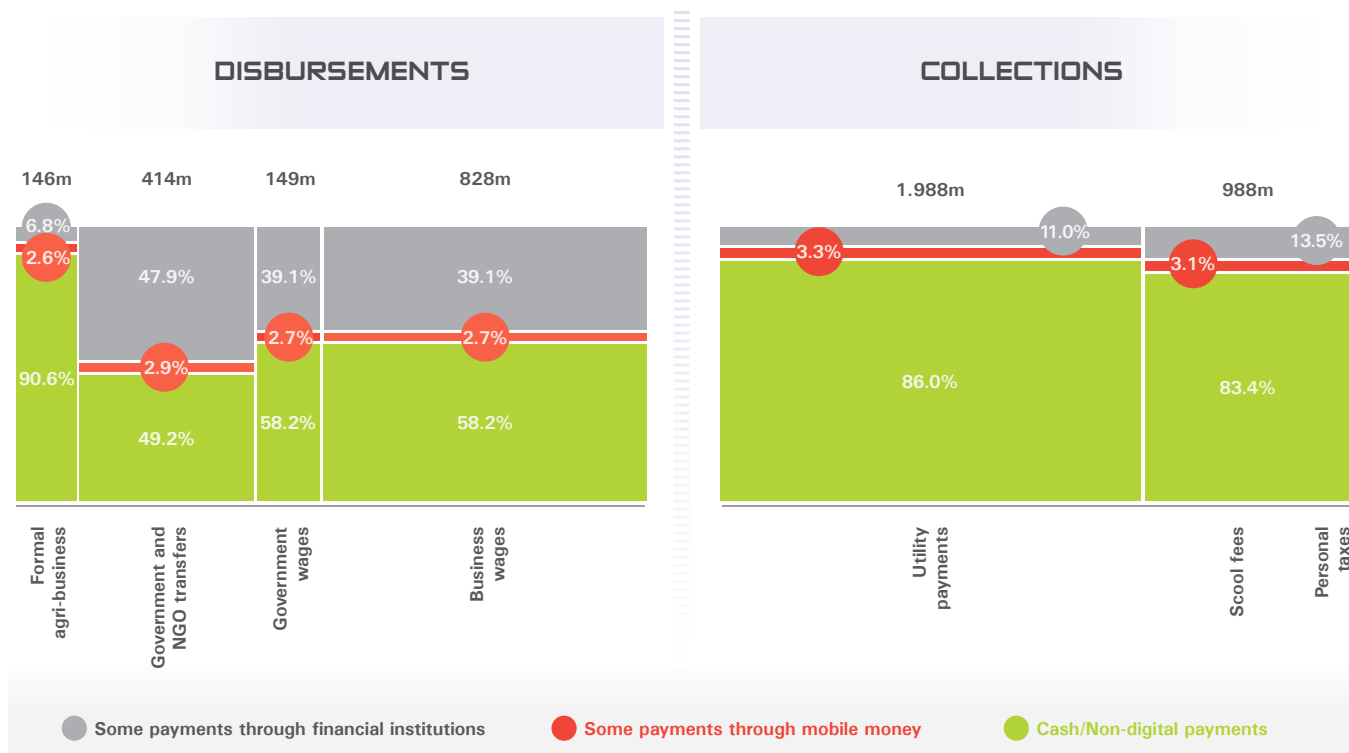
introduction

While digital financial services (DFS) are widely available, most registered digital accounts are used less than once a month. Ten years after Safaricom launched M-PESA in Kenya, only 12 percent of all mobile money services worldwide have more than a million active customers.¹ While the person-to-person (P2P)-led model has been hugely effective in some markets, particularly larger emerging markets, it has not proven effective for encouraging low-income customers—rural customers and women, in particular—to regularly and repeatedly use accounts. The relative cost of acquiring and registering a customer is fairly high, and the business case for serving rural areas is marginal for providers and their agents when relying primarily on P2P. For many of the largest digital wallet providers, especially mobile network operators (MNOs) and payment service providers (PSPs) that rely on fees for transfer services, finding uses beyond P2P is key to increasing the average revenue per user.

High-volume payments (HVP)—including social welfare payments, pensions and large-scale salary disbursements—have gained industry attention as an opportunity to drive or diversify usage, particularly by low-income families. In December 2016, nearly 120 million HVP were conducted via mobile money,² 19 percent more than the previous year.³ However, this figure is still a fraction of what was disbursed or collected in cash. Cash continues to dominate large-scale disbursements and collections in the developing world (see figure I).

Figure I: Cash domination across disbursement and collection types in key verticals

TOTAL NUMBER OF RECIPIENTS/PAYERS FOR KEY DEVELOPING WORLD VERTICALS AND USE CASES



Source: Figure from Chris Williamson, 'Launching a new toolkit: Digitising payments for businesses, governments and NGOs,' 1 October 2015 as well as the toolkit the article introduces: GSMA, *Strategic Overview: Digitising payments for businesses, governments and NGOs* (London, October 2015).

¹ GSMA, *State of the Industry Report on Mobile Money*, Decade Edition: 2006–2016 (London, 2017).

² This figure was based on GSMA State of the Industry data in which HVP included bill payments and bulk disbursements.

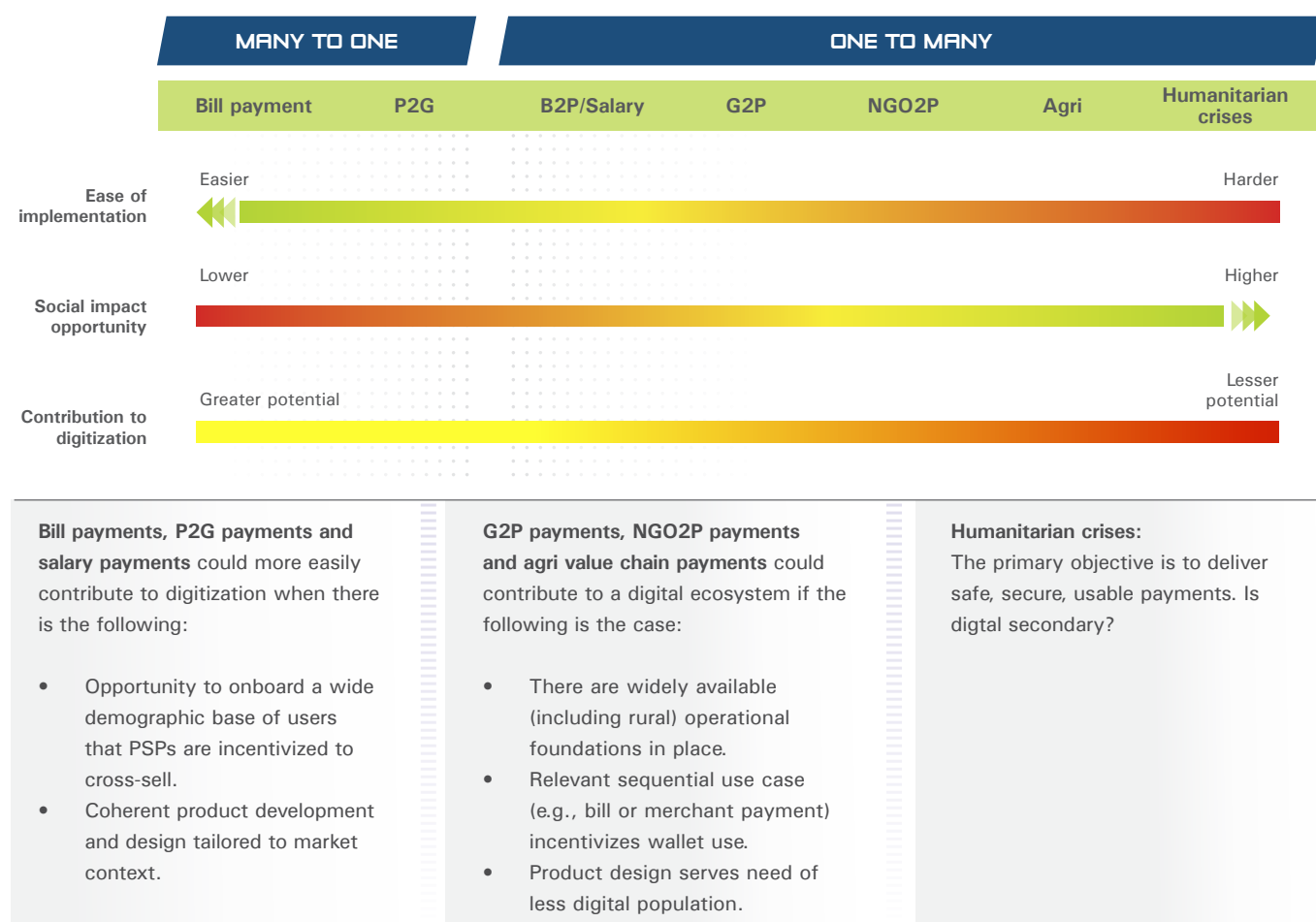
³ GSMA, *State of the Industry Report on Mobile Money*, Decade Edition.

The opportunity is clear: Digitizing cash-based HVP would extend the reach of DFS, particularly in markets where P2P has not yet had an impact.

The UN Capital Development Fund (UNCDF) has been helping to digitize HVP streams that reach rural customers in order to increase the economies of scope for digital account providers and customers. This work has been with providers but more often with HVP customers, including governments, companies, microfinance institutions, NGOs and even other United Nations agencies. The journey toward digitizing cash is long and complicated, and for HVP, the relationship between implementation and social impact is not always correlated (see box below). This report is intended to reflect on the lessons learned from UNCDF efforts thus far—and those of others—as well as to suggest a way forward to make digitization of HVP more likely to succeed in providing value to customers, providers, payers and payees.

Balancing ease of implementation with social impact of high-volume payments

It is important to understand that HVP encompass a broad range of use cases. Within each use case, the social impact opportunity may not necessarily align with the digitization drivers (see figure below). Use cases without an immediate or measurable social impact could be easier to implement while use cases that are harder to implement may have greater social impact, and expectations should be adjusted accordingly. This guideline is not meant to be universally applicable, though, because every market has different dynamics. Rather, its purpose is to provide a better understanding of the trade-offs that often occur when digitizing payments.



Acronyms: B2P, business to person; G2P, government to person; NGO2P, non-governmental organization to person; P2G, person to government

Project overview

This report compiles key observations, hypotheses and recommendations from the research project and is divided in two parts:

- **Part 1: Understanding the market-level drivers and the various actors involved with HVP.** This section seeks to answer two key learning questions MM4P has regarding HVP.
- **Part 2: Analysing how HVP can drive adoption of DFS.** Building on the insights from Part 1, this section identifies four problem statements for HVP and offers hypotheses for each.

The methodology to address the key learning questions allowed for multiple iterations and feedback prior to formulation of conclusions and recommendations. The first part of the project focused on synthesizing existing industry data and research. The observations and findings from the first part were used to test four hypotheses with internal and external experts in the second part. Insights from both phases were then distilled into recommendations to share with the wider industry in the conclusion.



Part 1: Understanding the market-level drivers and the various actors involved with high-volume payments

To better understand the prerequisites and feasibility of implementing HVP through digital finance, this research centred on two key questions:

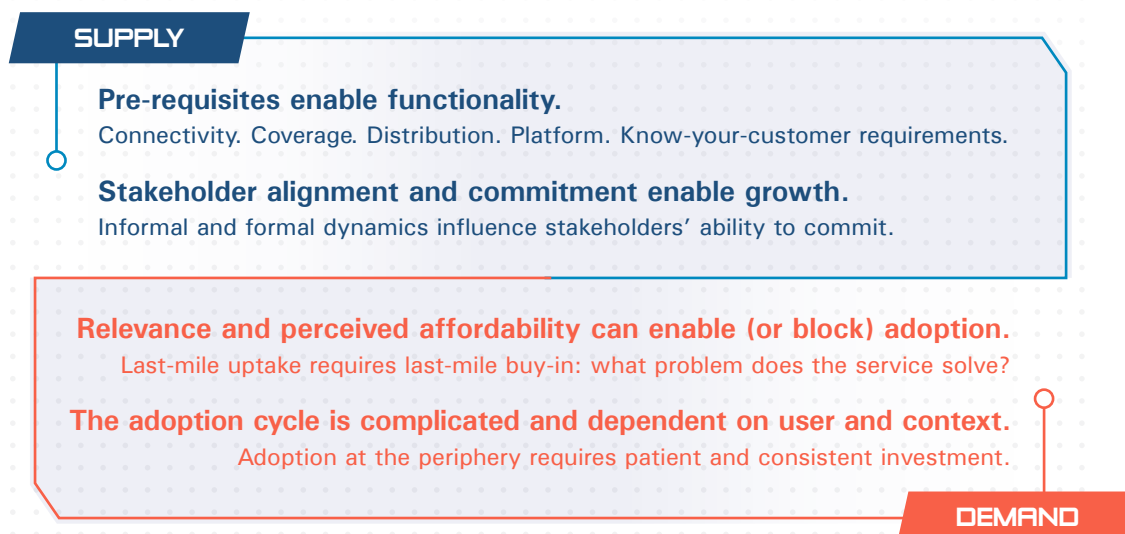
1. What are the **market-level drivers** for the digitization of HVP?
2. Who are the **various actors in the digitization effort** and what role do they play?

This first part focuses on addressing these questions based on an extensive external review, an internal review and interviews with more than 20 industry experts.

What are the market-level drivers for the digitization of high-volume payments?

The market-level drivers for HVP digitization can be grouped by supply and demand (see figure II). The supply side encompasses the infrastructure and investment required by providers and market stakeholders to ensure HVP programmes can function. The demand side comprises customers' willingness to accept the payments, which is determined by affordability, relevance and time.

Figure II: Overview of market-level drivers



Supply-side drivers

There is extensive industry research on key success factors when it comes to the supply-side drivers of digitization.⁴ Fundamentally, the two main supply-side drivers are (1) foundational prerequisites and (2) stakeholder alignment and long-term commitment.

⁴ Key publications analysing supply-side dynamics include the following:

- Mireya Almazan, 'G2P payments & Mobile Money: Opportunity or Red Herring?' 30 September 2013. Available from <http://www.gsma.com/mobilefordevelopment/programme/mobile-money/g2p-payments-mobile-money-opportunity-or-red-herring>
- Valerie Nkamgang Bemo and others, 'Enabling digital financial services in humanitarian response: Four priorities for improving payments' (Seattle, Bill & Melinda Gates Foundation, 2017).
- CGAP, 'Financial Inclusion for the Rural Poor Using Agent Networks in Peru,' Working Paper (Washington, DC, April 2016).
- CGAP and World Bank, 'Helping Ti Manman Cheri in Haiti: Offering Mobile Money-Based Government-to-Person Payments in Haiti' (Washington, DC, July 2013)... *continues on page 8*

Foundational prerequisites involve the infrastructure in the market that must exist for the basic product to function. These prerequisites, at their most basic, are [connectivity](#),⁵ [distribution](#), [platform](#) and appropriate⁶ [know-your-customer](#) requirements and processes. If any of these prerequisites is significantly lacking, a digital HVP solution cannot function and therefore cannot reach scale.

Connectivity, distribution and appropriate know-your customer requirements enable access for customers. HVP payers and PSPs consistently overestimate the ability of the ecosystem to deliver payments, leading to frustrations over delays and cost overruns. HVP payers and PSPs need to be aware of the shortcomings of these enablers in the market and have plans and budgets in place to address them.

On top of these prerequisites is the payment platform, which acts as the interface between payer and payee and may consist of multiple systems and databases that need to be connected. As noted by CGAP, the suitability of platforms is also regularly overestimated. The experience of UNCDF is that the difficulty in connecting different systems is often at fault, as well as the difficulty and/or cost for PSPs to modify their platforms.⁷ For the World Food Programme in Kenya, for instance, managing data through a new information system proved challenging and resulted in significant registration delays and, by extension, dormant accounts.⁸ Regardless of the HVP use case, these foundational prerequisites are non-negotiable.

Apart from foundational prerequisites, which seem to be universal, every other market-level driver can vary substantially by local context. For this reason, market-level drivers should be considered through the lens of the local market. [Stakeholder alignment](#) is vital to HVP because there are many stakeholders, and their interests, expectations and time frames can vary dramatically. There are numerous case studies, ranging from person-to-government payments in Côte d'Ivoire to government disbursements in Haiti, that explicitly highlight how the alignment (or misalignment) of stakeholders can impact the implementation of a programme.⁹ Specifically, it is important to recognize the internal political challenges and financial constraints faced by each stakeholder. For example, MNOs often are unable to allocate adequate investment (even with a clear business case) when confronted with competing priorities that may provide a quicker return or when faced with overall cuts to investment due to declining margins on voice and data services in competitive markets.¹⁰ Internal incentives for quick returns also reduce management and staff [commitment to longer-term projects](#).

• Jennifer Frydrych, Claire Scharwatt and Nicolas Vonthron, 'Paying school fees with mobile money in Côte d'Ivoire: A public-private partnership to achieve greater efficiency' (London, GSMA, September 2015).

• Jamie M. Zimmerman, Kristy Bohling and Sarah Rotman Parker, 'Electronic G2P Payments: Evidence from Four Lower-Income Countries,' Focus Note, No. 93 (Washington, DC, CGAP, April 2014).

• Julie Zollmann and Laura Cojocari, 'Cash Lite: Are we there yet? Rethinking the evolution of electronic payments in Kenya based on evidence in the Kenyan and South African Financial Diaries' (Nairobi, FSD Kenya, January 2015).

⁵ For the purposes of this research, 'connectivity' refers both to GSM coverage and access to a device/form-factor for payments.

⁶ In this report, 'appropriate' means suited to the environment. For instance, if a government ID is required but much of the population lacks one, this know-your-customer requirement is inappropriate. Government regulations are not the only requirements that may pose challenges: digital wallet providers often have procedures that make it difficult to onboard customers quickly and efficiently.

⁷ Zimmerman, Bohling and Rotman Parker, 'Electronic G2P Payments.'

⁸ Ibid.

⁹ See the following:

• CGAP and World Bank, 'Helping Ti Manman Cheri in Haiti.'

• Frydrych, Scharwatt and Vonthron, 'Paying school fees with mobile money in Côte d'Ivoire.'

¹⁰ Interview conducted by Lara Gilman with Andrew Widman, GSMA Senior Mobile Money Manager, Ecosystem Development, and Jennifer Frydrych, GSMA Mobile Money Advocacy Manager, via Skype on 9 May 2017.

Similarly, HVP payers may face informal pressure within the institution. In Kenya, research by GSMA on person-to-government programmes found that government agencies cited entrenched internal procedures as barriers to digitization, including a difficulty providing the upfront investment needed to shift to digital payments even when clearly linked to future cost savings.¹¹ Within the UN, legal agreements between parties can be painstaking and drawn out to complete due to inflexibility on specific contractual clauses. In India, despite positive findings from implementation of the biometric Smartcard, one study reported that local officials, whose rents were being reduced, were much more likely to relay negative anecdotes about Smartcards than positive ones.¹² Understanding both the explicit value proposition and the implicit (or informal) dynamics of each stakeholder is important to driving scale of an HVP programme.

The UNCDF programme MM4P continues to play a key role as an honest broker, helping stakeholders find aligned interests and an effective, efficient manner to work together. While it is hard to identify best practices regarding the act of bringing stakeholders together, the in-country focus of UNCDF MM4P and national DFS working groups demonstrate both commitment and local knowledge, which resonates with local stakeholders. Without the engagement and local convening power of UNCDF MM4P, some projects would have likely taken longer or fizzled before launch.

Demand-side drivers

The importance of the demand side is a relatively recent realization for the industry. Until 2015, most publications focused on supply-side challenges. There was an implicit assumption that customers would accept digital payments through the onboarding process. However, for many programmes, customers either flat out rejected the payments (as was the case in the Democratic Republic of the Congo)¹³ or, more commonly, immediately cashed out their disbursements. The latter scenario, while an improvement on cash-based disbursements by some measures, makes further ecosystem development challenging.

Key demand-side drivers include **relevance**, **affordability** and **time**. Relevance and affordability go hand in hand. The work of UNCDF MM4P in Uganda to analyse the value proposition of digital payments versus cash underscores the importance of relevance and affordability.¹⁴ Until digital payments can compete with cash, either by becoming more useful or more affordable to customers, an incentive to cash out or opt out will remain. The final market driver is time—enough time. The rapid proliferation of mobile money in markets like Kenya, Uganda and the United Republic of Tanzania set an expectation for the quick success of HVP programmes. Yet, the reality is that the digital adoption process for rural customers is long, complicated and highly dependent on local context. Unrealistic expectations have led to underinvestment, higher costs and abandoned programmes.

Who are the various actors in the digitization effort and what role do they play?

In addition to understanding the market-level drivers of HVP, this project also sought to map the various actors in the digitization value chain and their responsibilities. For HVP, there are four key actors (see figure III).

¹¹ Nic Wasunna and Jennifer Frydrych, 'Person-to-government (P2G) payment digitisation: Lessons from Kenya' (London, GSMA, September 2017).

¹² Karthik Muralidharan, Paul Niehaus and Sandip Sukhtankar, 'Building State Capacity: Evidence from Biometric Smartcards in India,' *American Economic Review*, vol. 10, No. 10 (October 2016), pp. 2895-2929.

¹³ TIC & Telecom, 'RD Congo : 900 enseignants d'Idiofa ne veulent plus recevoir leurs salaires par Airtel Money,' 26 March 2014.

Available from <http://www.agenceecofin.com/mobile/2603-18691-rd-congo-900-enseignants-d-idiofa-ne-veulent-plus-recevoir-leurs-salaires-par-airtel-money>

¹⁴ Páll Kvaran and Bram Peters, 'Making mobile money more attractive to farmers,' 12 July 2017.

Available from <http://www.uncdf.org/article/2536/making-mobile-money-more-attractive-to-farmers>

Figure III: Key actors in the digitization value chain



The basic responsibilities of these actors are straightforward and outlined below:

Enablers: These are the donors and regulators/policymakers who, via policy or funding, have a direct impact on the market systems surrounding HVP. Their responsibilities are to provide the infrastructure, environment or investment necessary to catalyse development in a sustainable way.

Payers (or Collectors): These are the companies, government agencies and NGOs that are the source of or recipient of funds. Their responsibilities are to identify the payment customers and, in some cases, to manage the know-your-customer requirements and onboarding processes as well as to negotiate the terms and conditions for the payees. This task usually requires support and education of customers who are new to DFS.

PSPs and Cash-in/Cash-out networks: These tend to hold the bulk of the execution responsibility. Responsibilities for these actors include technology, liquidity and agent management.

Ecosystem/Beyond payment: The ecosystem refers to sequential use cases that help encourage complete digital adoption by customers, such as digitizing input purchases in agricultural value chains, cash storage or savings products. These actors may be technology companies, third-party providers, entrepreneurs or others that accept digital payments or offer DFS. The responsibility of these actors is to drive the innovation that develops a digital economy and reduces the incentive to cash out.

Looking ahead, one of the most significant changes across the HVP value chain is the convergence of roles. Already seen in advanced markets like Uganda, this change is apparent between mobile money providers and aggregators. Aggregators have been playing a key role in the acceleration of digital payments as they are “the glue that helps many parts of the DFS ecosystem work together.”¹⁵ Their role is not limited to business-to-business connections. To increase their relevance and power in a market, aggregators are building direct relationships with customers and taking on a larger part of the PSP role, such as liquidity management and customer education. Aggregators can do so in markets where incumbent providers¹⁶ cannot afford to allocate significant resources—namely in the last mile.

The convergence in the HVP value chain is a promising signal that more players can enter and change the competitive landscape in markets. Entrants, particularly smaller entrepreneurial ventures, may be able to drive innovation faster, offering new business models and building partnerships that can reach niche segments.

¹⁵ Rashmi Pillai and Claudia McKay, ‘Understanding the East African Aggregator Landscape,’ CGAP presentation from January 2016, slide 3. Available from <https://www.slideshare.net/CGAP/understanding-the-east-african-aggregator-landscape>

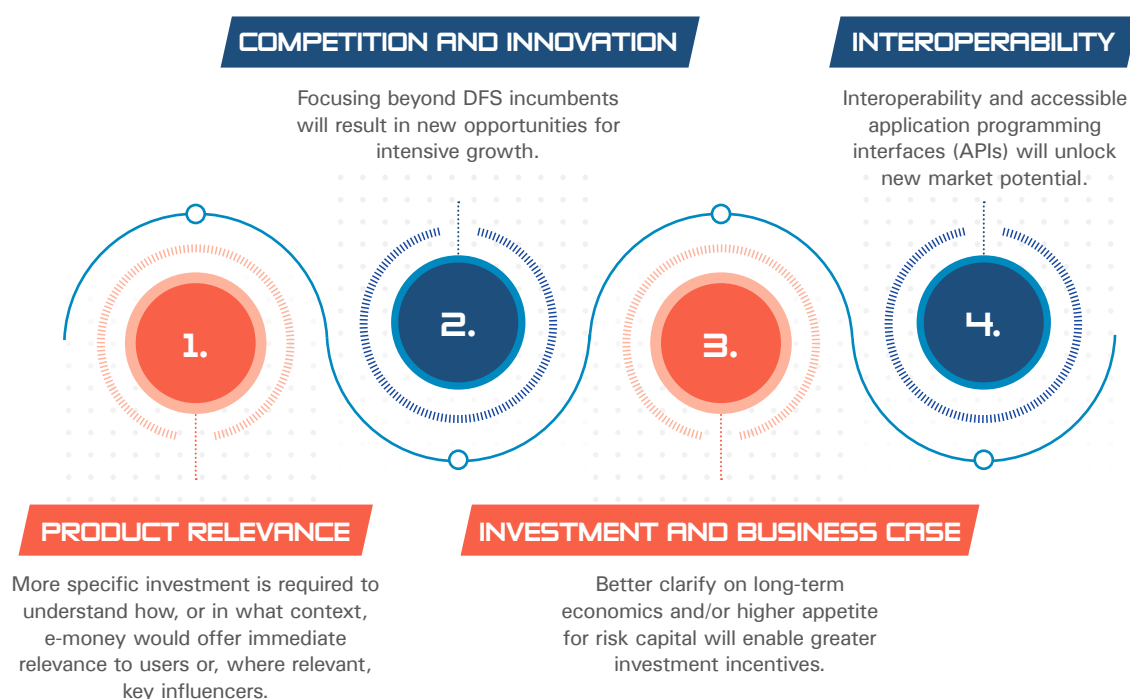
¹⁶ Depending on the market and region, incumbent providers could be MNOs or banks.



Part 2: Analysing how high-volume payments can drive adoption of digital financial services

To date, HVP programmes are not yet driving adoption in the way that P2P drove early uptake of mobile money. Building on the insights from the first phase of research, four problem statements and corresponding hypotheses are identified. The hypotheses reflect industry-level priorities regarding what needs to happen to drive DFS through HVP (see figure IV). Each hypothesis provides a proposed solution for a problem observed with HVP implementation. These hypotheses are not mutually exclusive but aim to be collectively exhausted.

Figure IV: Overview of industry hypotheses



1. Product relevance: More specific investment is required to understand how, or in what context, digital wallets would offer immediate relevance to customers or, where relevant, key influencers.

Problem statement: One of the early assumptions of HVP was that customers would adopt a digital solution simply because the payment mechanism was dictated by the payer or collector. While this assumption was not wrong, the reality is that without buy-in from customers, digital HVP neither drive financial inclusion nor offer a sustainable business model.

For many bulk payment programmes, the digital version and the cash-based version are almost identical. The primary difference is that the challenging logistics of a cash-based disbursement are shifted from the HVP payer to the PSP or cash-in/cash-out actor. For customers, the experience is largely the same; they go to a location, identify themselves and receive cash. Customers who

¹⁶ Depending on the market and region, incumbent providers could be mobile network operators or banks.

have no choice but to accept digital payment usually cash out in full because they have not been given any reason to do otherwise. It should come as no surprise that when given the choice, and often faced with a fee, many customers choose to opt out of digital payments over time or never sign up in the first place. This pattern is particularly acute for HVP that are infrequent or seasonal. Even when customers understand and believe that leaving some funds in a digital wallet may save them money in the long run, the natural tendency toward choosing the familiar prevails.

One of the earliest examples of an HVP pilot that solved customer problems was the mSTAR project to pay teachers in Liberia in 2015.¹⁷ Although it involved only a small sample, the pilot was able to demonstrate the meaningful impact that digital disbursements had on the daily lives of teachers by saving them the cost and time associated with travel. mSTAR explained the situation thus: “In Liberia, teachers travel for hours, days and even weeks to pick up their paychecks. This travel is so time-consuming that some teachers pick up their salary only once a year.”¹⁸ The results of the pilot in Liberia are noteworthy, with 89 percent of customers reporting that they wanted to enrol in a mobile wallet.¹⁹

Today, while there is greater investment in human-centred design, most research exists within the framework of digitizing a singular value chain rather than focusing on broader financial behaviours of customers. Customer research works best when it provides deeper insight on how to approach HVP in a way that creates **immediate** relevance to customers. A recent example is seen in the work that UNCDF MM4P did on value proposition mapping for coffee farmers in Uganda.²⁰ The mapping exercise was conducted after digital payments were offered for several seasons. It provided a detailed survey of payment processes (e.g., cash versus digital finance) and identified all the differences in activities and attitudes between cash and digital payees. In this case, UNCDF MM4P found that the cost of digital payments was comparable to the cost of cash, offering little incentive for farmers to make the digital shift. Predictably, efforts to digitize payments have been slow because farmers have to opt in.

HVP can help build the ecosystem because they provide a source of funds to digital accounts. However, as with any product, customers must also see relevance within their daily lives, or an HVP programme will likely face an uphill battle toward adoption.

Hypothesis: To fully digitize HVP, more specific investment is required to first understand how, or in what context, e-money can offer immediate relevance to customers and then to incorporate it in the overall effort.

Although a developed ecosystem with multiple use cases would solve the challenge of relevance and utility, this hypothesis focuses on a narrower goal, which is to create immediate relevance. Beyond layering new use cases, there are three approaches that could create relevance:

A. Position product to demonstrate the higher relative value of digital solutions compared to cash: Building on the work of UNCDF MM4P on value proposition mapping, an approach to increase relevance is to establish up front the relative utility of digital payments versus cash for customers in specific types of HVP programmes, based on comparable programmes and rapid prototyping and testing.

¹⁷ mSTAR Liberia, ‘Mobile Salary Payment Factsheet - Nimba County’ (n.p., 2015).

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Kvaran and Peters, ‘Making mobile money more attractive to farmers.’

For example, through the human-centred design approach used by UNCDF MM4P in the coffee value chain of Uganda, women farmers revealed that they used mobile money because it gave them a safe place to store cash—a linked use case beyond receiving payments.²¹ The HVP effort should address this finding proactively, building on this perceived value by customers. In some cases, it may just be about refining the messaging or making small product changes. However, it can also help identify and create the business case for linking **additional use cases**, which would increase the value of digital payments for customers. For example, farmers might like to regularly receive pricing information and farming tips. Ideal use cases would be those that occur immediately or soon after acceptance of a digital payment—possibly with a financial incentive attached.

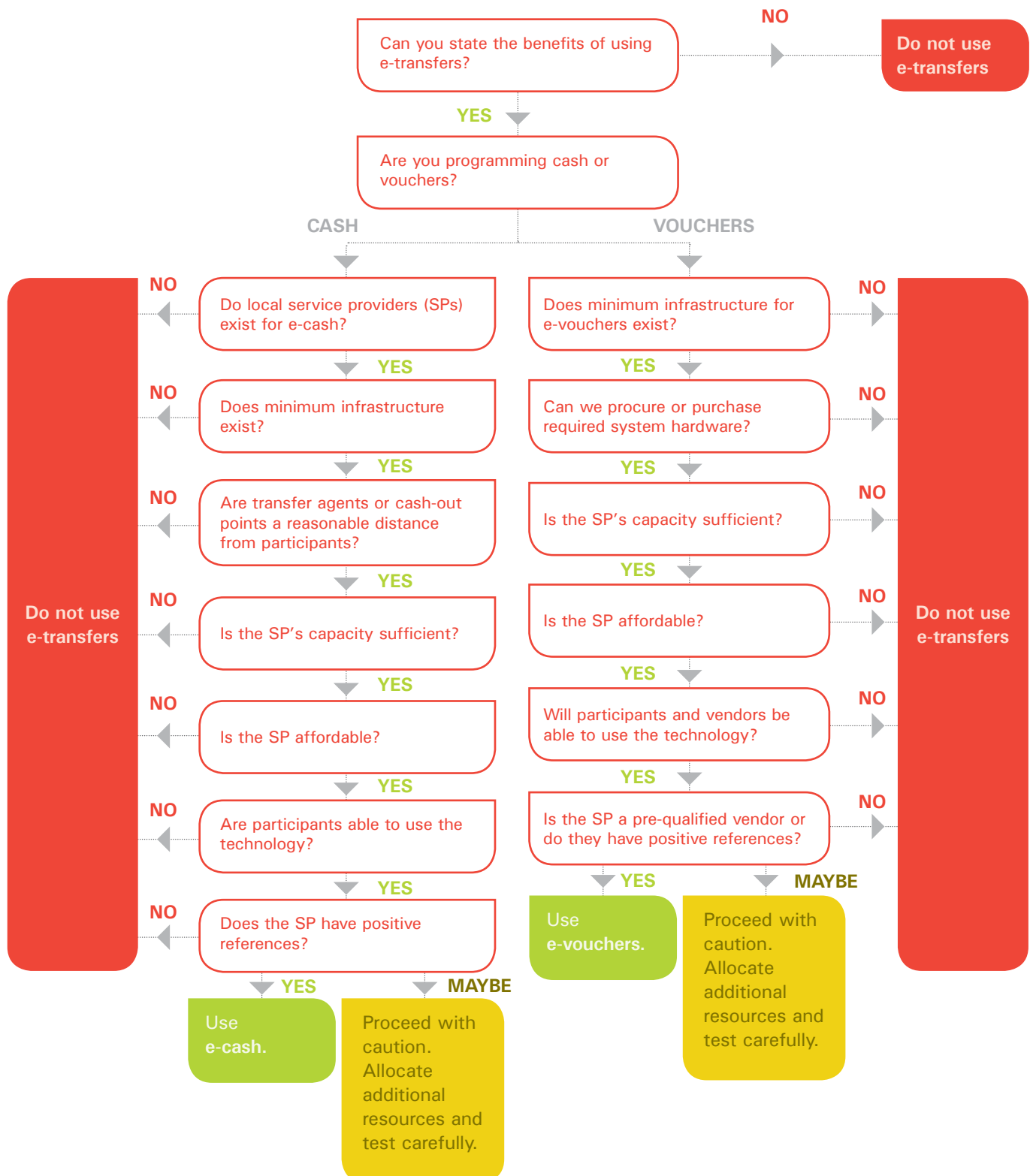
B. Do not forget technology and form factor: As smartphones become more affordable, there will be more flexibility in delivery/collection mechanisms. Form factor (i.e., the shape, size and feel of the hardware or payment instrument) can also have an enabling/disabling effect on trust, and the solution will vary between contexts. Investment to understand the best medium (e.g., card, smartphone, over-the-counter [OTC], Unstructured Supplementary Service Data [USSD]) to use for digitization could help accelerate early adoption. For instance, initial research on in-store banking by Westpac suggested that new customers would highly value cards embossed with their name, which meant waiting for a card.²² It was later revealed that providing a generic card upon registration, which offered the physical sense of being immediately 'banked,' was a better way to onboard clients and have them transact sooner.

C. Recognize that not all payments are worth digitizing: Payers (or Collectors) should be honest about which problem or whose problem they wish to solve. It is perfectly reasonable for a company or government to go digital in order to save itself money. Initially, this effort may add cost or inconvenience to customers—something UNCDF works steadfastly to avoid in its projects. If digitization does not obviously solve a customer problem, then other considerations (e.g., the social impact opportunity) must be great to make a digitization programme worthwhile to customers. For example, since humanitarian payments are sensitive and often logistically complicated, Mercy Corps developed a decision tree for them. The decision tree is based on the circumstances of refugees or internally displaced persons and the level of data protection that can be assured (see figure V).

²¹ Sabine Mensah and Lara Gilman, 'The Gender Impact of Digital Payments,' 17 October 2017. Available from <http://www.uncdf.org/article/2702/gender-impact-digital-payments>

²² Pacific Financial Inclusion Programme with Westpac, 'Digitizing Social Welfare Payments in Fiji,' internal research, shared with UNCDF, Fiji, 2009.

Figure V: Mercy Corps decision tree for e-transfers in humanitarian payments



Source: Figure from Mercy Corps, 'E-Transfer Implementation Guide' (Portland, 2014), p. 12.

2. Competition and innovation: Focusing beyond digital financial service incumbents will result in new opportunities for intensive growth.

Problem statement: The high start-up costs for mobile money means that most incumbent providers tend to focus on mass market appeal in order to secure returns. Consequently, there is a reluctance among incumbent providers to invest in hard-to-reach or vulnerable populations, which are in turn at risk of being left behind. As of 2014, mobile money providers in predominantly rural markets were only able to capture 17 percent of the addressable market compared to 50 percent in advanced markets.²³ Incumbents may not be the best placed to drive this growth, at least not alone. Through its digitization efforts in Nepal and Uganda, UNCDF MM4P found that third parties with existing customer relationships and with smaller, more nimble teams can play this role, in partnership with a larger and better resourced incumbent.

Hypothesis: Focusing beyond incumbent providers will result in new opportunities for intensive growth.

Based on the evolution of aggregators in Uganda and pay-as-you-go providers' impact on mobile money, there is an emerging trend that suggests convergence in digital payment value chains. It has developed in an ad-hoc manner. However, as several MNOs introduce more open application programming interfaces (APIs) in the market, there is hope that it will spur market development and competition for HVP by providing a clearer road to market for smaller companies. It is so far unclear if it is a global trend, an advanced market trend or simply an anomaly impacting certain markets. Solving the challenges that prevent these new players from entering the market (e.g., lack of funding, business model, technical infrastructure)²⁴ could result in new opportunities for intensive growth.

3. Investment and business case: Better clarity on long-term economics and/or higher appetite for risk capital will enable greater investment incentives.

Problem statement: For many providers, early stage or incumbent, the financial demands associated with DFS limit their willingness or capacity to invest adequately. As mentioned earlier, many MNOs are often unable to allocate adequate investment because of downward pressure on the voice and data business.²⁵ HVP programmes are particularly vulnerable to these cuts because most programmes involve a high upfront investment to onboard customers, establish agents and onboard payers/collectors. This vulnerability to cuts, combined with the lack of a clear business case, make it difficult to impossible to secure stakeholder commitment—particularly for those HVP that are seasonal and may take several years to become profitable.

Hypothesis: Better clarity on the long-term economics and/or greater risk capital will enable better investment incentives.

There are two ways to address inadequate investment in HVP programmes. First, creating greater clarity around the business case is essential to unlocking more capital, especially from incumbents that are regularly deciding between competing investment options. Part of this effort is helping providers re-evaluate their assumptions and, as UNCDF has done, offer some cost-sharing or revenue guarantees to encourage them to look beyond the short-term business case.

²³ Lara Gilman and others, 'Spotlight on Rural Supply: Critical factors to create successful mobile money agents' (London, GSMA, October 2015).

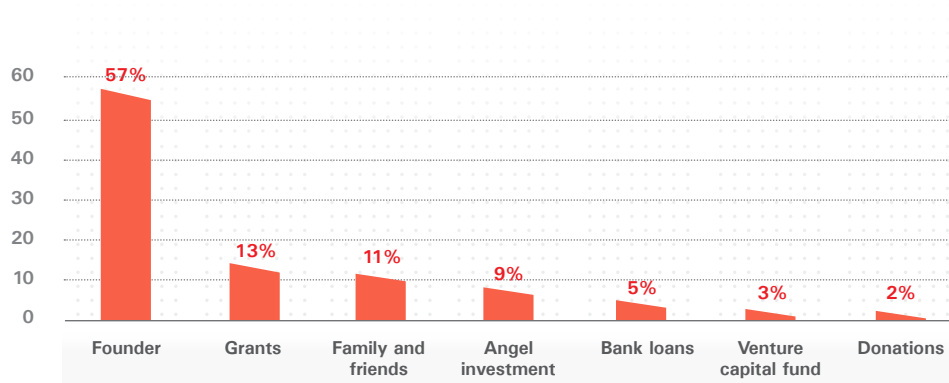
²⁴ David Darkwa and Rashmi Pillai, 'Lessons from Aggregator-Enabled Digital Payments in Uganda,' 18 February 2016.

Available from <http://www.cgap.org/blog/lessons-aggregator-enabled-digital-payments-uganda>

²⁵ Interview with Widman and Frydrych.

Second, greater risk capital from outside investors would help unlock growth, particularly for entrepreneurs and early-stage ventures looking to HVP as a market-entry strategy. For younger businesses, the lack of capital is a barrier to entry—particularly in sub-Saharan Africa. According to one report, 57 percent of all African start-ups rely on founder capital; angel and venture capital funding only accounts for 12 percent (see figure VI).²⁶ Other markets like China, India and the United States of America have been able to foster innovation in financial services more rapidly, partly due to the availability of greater risk capital. As aggregators and other entrepreneurs play a larger role in HVP implementation, greater risk capital could help identify new business models to better reach the last mile.

Figure VI: Reliance of African start-ups on founder capital



Source: Bar graph from Yomi Kazeem, 'African start-ups are securing more investment—but there's still room for growth,' 25 May 2016.

²⁶ Yomi Kazeem, 'African start-ups are securing more investment—but there's still room for growth,' 25 May 2016. Available from <https://qz.com/691106/african-start-ups-are-securing-more-investment-but-theres-still-room-for-growth/>

4. Interoperability: Interoperability and accessible application programming interfaces will unlock new market potential.

Problem statement: While interoperability is not a requirement to launch an HVP programme, it does have an impact. Interoperability and accessible APIs would increase the feasibility of new players entering the market to implement HVP programmes. In markets where services are silos and agents are largely proprietary, HVP payers are often faced with either a ‘winner takes all’ approach to selecting a PSP or negotiating agreements with multiple providers to ensure that all payees are covered. This situation also limits customer choice as to where to receive the money. Payment aggregators are addressing this problem in middle-stage markets. However, it adds another cost layer to an already marginal business.

Globally accessible APIs would enable easier onboarding for payers that are distributing funds across markets. It would allow payers to link directly with PSPs or for payment aggregators to do so more cheaply. Likewise, interoperability across PSPs would offer greater access for HVP payers that are looking to work through a single bank or PSP that is then linked to the customers’ own institution of choice. Currently, the technical architecture for interoperability continues to be lacking, although initiatives like Mojaloop may offer some opportunity to bridge the technical gap.²⁷ Technical issues aside, interoperability is a regulatory and business model challenge that will only be resolved over time with different approaches, players and policy environments.

Hypothesis: Interoperability and accessible APIs will unlock new market potential.

This hypothesis posits that decreased friction in the technical infrastructure—through interoperability or accessible APIs—would allow for greater viability of HVP programmes in the short term. Better infrastructure would support a wider range of international, regional and local disbursement programmes to go digital. Furthermore, there would be a concurrent benefit of accessible technical infrastructure, enabling faster third-party integration for players that can serve more niche use cases.

The focus is on developing flexible and globally accessible infrastructure that supports interoperability (in any form) and third-party integration. Regulators, PSPs and other key stakeholders will need to identify the form, function and/or limitation of interoperability or third-party integration such that the solution adds the greatest value for the industry as a whole.

²⁷ For more information, see <http://mojaloop.io/>.



conclusion

HVP represent a complicated use case to implement with three important considerations:

- While supply-side drivers share consistent traits globally, demand-side drivers are, by and large, highly localized.
- In many markets, the private sector, dominated by a few players, lacks adequate competition and interoperability to drive innovative solutions that reach the last mile.
- Sustained customer behaviour change requires a long-term vision and more nuanced intermediary success metrics.

Based on insights from this research, UNCDF MM4P has developed recommendations for UNCDF and the industry as it engages and supports HVP to enable broader digitization:

Support market foundations with monitoring: Although HVP can enable digitization, poor foundational prerequisites tend to result in poor implementation. For stakeholders, a more rigorous assessment and monitoring process as well as coordinated investment around market development for HVP would be beneficial, both in markets with and without foundational prerequisites in place. For markets with inadequate foundational prerequisites, a market systems approach would evaluate and prioritize investments as well as help remove systemic and institutional barriers. For markets with adequate prerequisites, the focus would be helping the industry identify and act on the demand- and supply-side drivers.

Increase innovation by supporting market competition: One of the challenges facing the evolution of HVP to broader DFS adoption is the lack of investment and commitment from incumbent providers, which tend to focus only on mass-market growth. In much of the world, the financial revolution is being led by young fintechs that are nimble, hungry and efficient enough to actively engage the segments ignored by incumbents. Cultivating more recent entrants is a practical immediate opportunity, particularly in markets with strong foundational prerequisites. Support for more recent entrants would extend beyond financing and include helping them develop their operational capacity and business approach. Most importantly, funders could help link these smaller firms to incumbent providers by facilitating their access to existing payment channels and distribution networks.

Encourage and focus on long-term investment: A persistent challenge highlighted by in-country UNCDF MM4P teams is a lack of sustained investment by the private sector and donors to drive meaningful behaviour change among hard-to-reach populations. HVP programmes serve a population with a more complicated and slower customer journey, and they may also be linked to specific seasons or schedules. As a result, most HVP programmes face some level of 'investment cliff risk' in which donor or private sector investment expires before critical mass has been achieved. There is an opportunity to understand how the approach of venture capitalists could be applied to HVP investment challenges, bringing in higher risk capital that allows businesses to overcome the challenge of growth before solving the challenge of monetization or business case. While there are shortcomings that limit the universality of this approach, there may be merit in a mindset shift away from short-term impact and returns.

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