# BREAKING THE PATTERN:

## Getting Digital Financial Services Entrepreneurs to Scale in India and East Africa

VillageCapital

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# LETTER FROM THE PRESIDENT

If you've been paying attention to the *Economist* or the *New York Times*, you might think we're in a golden age for digital financial services in India and East Africa: with a mobile phone, anyone can have an entire bank in their hand. But in fact, the market hasn't reached any kind of meaningful scale. We're only at the very beginning.

The media has widely, and correctly, heralded the successes around mobile money: among them, Kenya's M-Pesa, the mobile-money platform that has given nearly 30 million people in East Africa access to mobile payments, savings, and credit,[1] and India's first fintech giant, the mobile wallet Paytm, which reports having more than 177 million users.[2]

But it's too early for people hoping to extend quality financial services worldwide to declare victory. More than 233 million people in India and 60 million people in East Africa still do not have accounts at formal financial institutions.[3] Millions more who have accounts aren't using them regularly. The IFC estimates that more than half of small businesses don't have access to formal credit.[4]

What does this mean? People travel long distances to pay cash for essential services like electricity. Families are vulnerable to external shocks, such as unexpected medical expenses. Small businesses are unable to grow. This leaves people in a cycle of poverty, stalls job creation, and slows overall economic growth.

We'll need hundreds of companies to reach scale to truly improve the financial health of communities in India and East Africa. We define scale as "product-market fit": when a company has more inbound customers than outbound sales; when the product is clearly different from and better than other products in the market; and when the team is able to effectively manage the growth that comes with product success.

Today, we have lots of contenders. Companies like: FarmDrive, a data-analytics company that helps smallholder farmers in East Africa gain access to the credit they need to improve their yields. And Loans4SME, a marketplace-credit company that extends credit to small businesses in high-impact sectors, such as renewable energy and clean tech, based on cash flows instead of collateral. These companies have incredible potential to improve the livelihoods of their customers.

However, most digital financial services [DFS] startups are not scaling. **The vast majority of DFS companies have enormous trouble reaching more than a few thousand people.** And the big successes - those companies that receive venture capital - are by far the exception to the rule.

Why is this? Simply put: these companies aren't able to secure the proper resources they need to grow. The most common way we back new ideas is venture capital. But for every DFS company that receives venture investment, dozens more do not. In East Africa, for example, startup investment is at an all-time high, but in the past two years **72% of venture capital went to just three startups.**

Why are there only a few household DFS names in these regions, while most are struggling to scale? Village Capital, with support from the Bill & Melinda Gates Foundation, set out to answer this question. To do so, we interviewed dozens of DFS entrepreneurs, investors, and other ecosystem players in India and East Africa - the people best positioned to offer insights into how to succeed in these markets, and to reveal the obstacles that stand in their way.

Entrepreneurs face distinct challenges. We found that investors are hesitant to invest because they (often justifiably) see DFS companies in these markets as much riskier investments than alternative sectors or geographies. But we also found that investors in East Africa and India use a "one size fits all" model of venture capital - made for Silicon Valley - style consumer technology companies - to invest in markets that operate under an entirely different set of rules. As a result, investment tends to flow to entrepreneurs with strong preexisting networks, and those without are left on the sidelines.

This is bad for companies, which miss out on capital, and bad for investors, who miss out on high-potential companies that need more time, cash, and support to grow. Most of all, it's bad for the hundreds of millions of people in these markets lacking access to formal financial services.

To increase financial inclusion and access to opportunity for millions of people around the world, it is essential that we break this pattern and help more DFS startups reach their potential. We'll propose solutions that can help investors develop the right tools - in the right local context and time - to make better decisions about DFS companies in India and East Africa.

Removing barriers for entrepreneurs to build DFS enterprises will increase customer choice, information, and freedom, and ultimately improve the financial health of hundreds of millions of people around the world.

**Ross Baird**
President
Village Capital

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to Scale in India and East Africa

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# ACRONYMS AND DEFINITIONS

| | |
|---|---|
| API | Application programming interface, or technologies |
| B2B | Business to business |
| B2C | Business to consumer |
| B2B2C | Business to business to consumer |
| CRM | Customer relationship management |
| DEG | German Investment and Development Corporation |
| DFID | Department for International Development, UK government |
| DFS | Digital financial services |
| ESO | Entrepreneur Support Organization |
| GSMA | The GSM Association, representing mobile operators' interests |
| IFC | International Finance Corporation |
| IIT | Indian Institute of Technology |
| IRR | Internal rate of return |
| MSMEs | Micro, small, and medium enterprises |
| MNOs | Mobile network operators |
| NBFCs | Non-banking financial company |
| NCDs | Non-convertible debentures |
| P2P | Person to person, or peer to peer |
| PMJDY | Pradhan Mantri Jan-Dhan Yojana (The National Mission for Financial Inclusion, i.e. the Indian Prime Minister's People Money Scheme) |
| PRI | Program related investment |
| RBI | Reserve Bank of India |
| SGBs | Small and growing businesses |
| SMEs | Small and medium-sized enterprises |
| VIRAL | Venture and investment readiness and awareness levels |

# EXECUTIVE SUMMARY

More than 233 million people in India and 60 million people in East Africa still do not have accounts at formal financial institutions,[5] and around half of small businesses lack access to formal credit.[6] We know the enormous potential of digital financial services [DFS] - Kenya's mobile-money platform, M-Pesa, and India's mobile-wallet giant, Paytm, have already begun to help millions connect with the formal economy. And payments are just the tip of the iceberg. Companies across India and East Africa are developing innovative solutions to meet the needs of the financially excluded. Yet despite the enormous market opportunity and the number of high-potential DFS companies in these markets, very few are scaling. Why?

The obvious answer most startups will give is capital. Companies aren't raising the money they need to get to scale: 72% of startup funding in East Africa has gone to just three companies in the past two years, and the other companies have struggled to fulfill a full round. In India, despite a more active investment landscape, in the past two years, only five of the startups that have raised follow-on investment are focused on the underbanked. **If there's a huge market and many high-potential companies, why aren't more companies attracting the capital they need to grow? What could unlock scale for a larger number of companies in these markets?**

We set out to answer these questions. Building on a strong body of existing research, this report will focus on the entrepreneur perspective. We spoke directly with 55 DFS companies and 23 stakeholders operating in East Africa and India, two regions that have led the world in increasing financial inclusion through technology.

We define **scale** for this study as achieving "product-market fit" - the point when customer acquisition becomes less costly, the product rapidly gains market share, and the company moves toward profitability. We found that many DFS companies are unable to scale because they cannot attract the investment capital necessary for growth. In addition to macro-economic factors, from our interviews we found that investors see DFS companies in India and East Africa as too risky for the following reasons:

1. **The Human Capital Trap: Companies can't raise money without the right team, but can't afford the right team without raising money.** Investors worry that without the necessary talent, companies will not achieve the milestones that are needed to scale. However, because specific skill sets are harder to find in India and East Africa, DFS companies can't afford good talent without raising capital.

*"It is hard to find midlevel career financial-services people who have been trained to think creatively. At banks, the products are vanilla and rinse and repeat."*

In East Africa, the main challenge is finding experienced team members with skills in IT or financial services.

*"I can't find people who can manage; I have great technical talent but the lack of people who can communicate and manage effectively is hurting the business as we grow."*

In India, the larger challenge is in finding experienced managers who can lead a technical staff.

2. **Business Model Constraints: DFS companies face challenges in building a profitable business in markets that are not yet in the digital economy.** Investors want to see evidence of a profitable business model. Yet, the cash- and paper-based nature of these markets requires companies to overcome structural factors that make it challenging to prove out a profitable business model that can scale. These obstacles vary depending on the type of services the companies offer, and overcoming them requires time, capital, and agility:

   a. **Digital-Payments Infrastructure is Inaccessible:** Most digital financial services rely on a digital-payments infrastructure, including a robust cash-in/cash-out network and digital connectivity. However, this infrastructure is difficult to access in both East Africa and India.

*"[Integration] becomes difficult to better the financial inclusion for the smallholder farmers," noted one company, referring to high monthly fees. "It just becomes another nightmare."*

In East Africa, mobile-network operators [MNOs] dominate this infrastructure which makes it difficult and expensive for DFS companies to integrate with it and reach customers.

*"For a while you'll have to do both online and offline well, which is expensive and doesn't scale as easily."*

In India, the cash-in/cash-out network is too weak to deliver financial services to small cities and rural areas, making it hard for DFS companies to reach new customer segments.

   b. **DFS Companies Face High Customer Acquisition Costs:** Due to the mistrust and lack of adoption of key products in the digital economy, DFS companies in India and East Africa face higher costs of customer acquisition that can hinder the path to positive unit economics.

*"The traditional Silicon Valley model of building a product so viral that you don't need a sales force cannot be applied to India... We need more examples, stories, and advisory on how digital fintech businesses can scale using online/offline hybrid models of delivery."*

3. **Debt Capital Gap: DFS Companies Struggle to Attract the Capital They Need to Demonstrate Traction:** Investors want to see proof of traction, but DFS companies, particularly alternative lending companies, need innovative and risk-tolerant working capital to demonstrate proof of concept.

> *"Once you prove the concept, it becomes a concept; the problem is in accessing the capital to prove the concept to begin with."*

4. **The Pattern-Recognition Problem: Most DFS Companies Don't Fit What Investors Recognize - or Don't Know Anyone With Money:** Because of the high cost of early stage due diligence in India and East Africa, investors often fall back on pattern recognition to find companies and make investment decisions - relying on networks and indicators like attending a prestigious university or accelerator program. One Fintech investor we interviewed noted, *"I'm a busy investor: so how does a Kenyan entrepreneur cut through the noise of other companies that are emailing me cold or through people in my network. I need a filter."*

> This makes fundraising difficult for most entrepreneurs in East Africa - where 90% of disclosed investments over the past two years went to startups with one or more European or North American founder.

> In India, it is more common for local-born founders to receive investment - at least in the early stage - but still difficult for those who did not attend one of a few prestigious universities. Seventy percent of companies that raised follow-on investment (series B and greater) in the past two years had a founder who attended one of these universities.

# Investors aren't seizing the opportunity to scale high potential East African & Indian DFS companies


**Of startup investment in East Africa in 2015-2016 went to just 3 companies**


**Indian DFS companies raised follow on capital in 2015-2016**

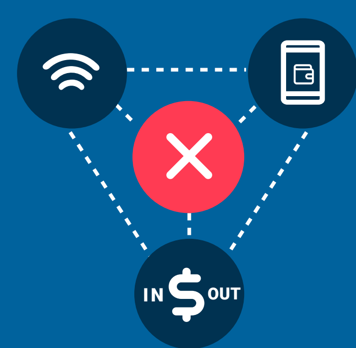
## Investors perceive DFS companies as too risky because of systemic challenges in the East African and Indian markets:

### Human Capital Trap

Companies ***need money*** to get people but also ***need people*** to get money

### Business Model Constraints

The Digital Payments Infrastructure is ***hard to access*** and ***acquiring customers is expensive***.




### Debt Capital Gap

Companies need to ***show traction*** and ***proof of concept***

### Pattern Recognition Problem

Investors are only investing in ***founders*** from the ***US or Europe*** or who attended a ***prestigious University***

# Breaking the Pattern:

## A List of Recommendations To Help DFS Companies Succeed

Here is a starter list of actions to help DFS companies obtain the capital necessary for scale.

| Action | Who | Region |
|---|---|---|
| **INCREASE AVAILABILITY OF FINANCIAL CAPITAL** | | |
| Develop a tiered venture debt fund to increase the availability of different types of investment capital to support entrepreneurs as they grow | Foundations, DFIs, Investors | East Africa; India |
| Support a deal syndicate with first loss or matching-grant guarantee | Foundations, Investors | East Africa |
| Provide matching grants to de-risk investments | Foundations | East Africa; India |
| **MITIGATE RISKS DFS COMPANIES FACE ON THE PATH TO SCALE** | | |
| **Human Capital:** Support Initiatives to Help DFS Companies Obtain the Talent They Need to Grow | | |
| Develop an integrated talent-management network | Funders, Investors, ESOs | East Africa; India |
| Provide subsidized capital for strategic human-capital hires to de-risk investments | Investors, Foundations | East Africa; India |
| Develop programs to connect world-class talent with DFS companies | Foundations, ESOs, Corporations | East Africa; India |

| Action | Who | Region |
|---|---|---|
| **MITIGATE RISKS DFS COMPANIES FACE ON THE PATH TO SCALE** | | |
| **Business Model:** Facilitate Partnerships to Improve Access to the Digital-Payments Infrastructure | | |
| Facilitate partnerships with existing industry associations to develop programs that will help DFS startups become "partnership ready" | Funders, ESOs, MNOs | East Africa |
| Develop a fintech-specific industry association to represent the interests of financial services and help develop clear and consistent processes across the industry | Foundations, Financial Institutions, Reserve Bank of India (RBI) | India |
| **Debt Capital:** Increase the Availability of Debt Capital for DFS Companies to Demonstrate Traction and Proof of Concept | | |
| Develop a first-loss guarantee fund to catalyze local debt | Foundations, Investors | East Africa; India |
| Establish a foreign direct investor-owned NBFC to increase the amount of debt available in India | Foundations, DFIs, and Investors | India |
| **Pattern Recognition:** Support initiatives to overcome pattern-recognition fallbacks | | |
| Develop a diagnostic tool to increase transparency and enable connection between investors and entrepreneurs | Foundations, ESOs, Investors | East Africa; India |
| Fund local entrepreneur-support organizations and investors that can provide access to networks and credibility to entrepreneurs | Foundations, DFIs, Corporations, Investors | East Africa |

DFS companies in India and East Africa face significant challenges operating in markets where infrastructure is insufficient, human capital is difficult to find, and enormous portions of the population are poor and/or still operate using cash as a primary form of payment. As a result, they aren't getting the capital they need to succeed. This is bad for everyone: the investors who miss out on great deals, the companies that don't receive the capital they need to grow, and ultimately the individuals and communities who could become more financially healthy through the solutions offered by innovative DFS businesses.

We strongly believe that these challenges are addressable if entrepreneurs, investors, policy makers, foundations, DFIs and entrepreneur-support organizations can coordinate on taking action to break down some of these barriers. We have laid out some ways we believe this is possible and we look forward to collaborating with others in the ecosystem to ultimately improve the financial health and economic resilience of millions of people around the world.

**This report provides a more in-depth analysis of these barriers and is structured as follows:**

Part 1: Overview of the Study, *Breaking the Pattern: Getting Digital Financial Services Entrepreneurs to Scale*
Part 2: Opportunity Is Knocking: Yet Too Few Investors Answer
Part 3: Challenges That Increase Risks on the Path to Scale
Part 4: Breaking the Pattern: What We Can Do to Help More DFS Companies Succeed

# PART 1:
# OVERVIEW OF THE STUDY

More than 233 million people in India and 60 million people in East Africa still do not have accounts at formal financial institutions,[7] and around half of small businesses there lack access to formal credit.[8] Brick-and-mortar financial-service providers don't have the reach or the financial products that can serve these underrepresented customer segments. The result is that individuals and micro, small, and medium enterprises [MSMEs] are unable to access the financial tools that can support economic growth and move poor households out of poverty.

We know the enormous potential of digital financial services [DFS] - Kenya's mobile-money platform, M-Pesa, and India's mobile-wallet giant, Paytm, have already begun to help millions connect with the formal economy. And the market is moving beyond payments. Companies like **FarmDrive** are using data analytics to help smallholder farmers in East Africa gain access to credit. **Loans4SME** is focusing on cash flows instead of collateral to enable finance for small businesses in India in undercapitalized sectors, such as renewable energy and clean tech. **Esoko** is offering a mobile-money solution that allows smallholder farmers to lay away and borrow money to purchase the right inputs at the right time. **Simpa Networks** is providing asset-based financing for solar systems and energy service on a pay-as-you-go model to energy-poor households and microenterprises in rural India.

To really improve financial inclusion, the market needs hundreds of these types of DFS innovations to scale to maximize reach, increase competition, and improve the quality of services.

Yet despite the enormous market opportunity and the number of high-potential DFS companies in these markets, very few are scaling. **Why?**

The obvious answer is capital. Companies aren't raising the money they need to get to scale: 72% of startup funding in East Africa has gone to just three companies in the past two years, while many others have struggled to fulfill a full round. In India, despite a more active investment landscape, - only five of the startups that have raised follow-on investment in the last two years are focused on the underbanked. **If there's a large market opportunity and many high-potential companies, why aren't more companies attracting the capital they need to grow? What could unlock scale for a larger number of companies in these markets?**

Our goal in this report is to begin to uncover *why these problems exist* and identify *ways to solve them*, in order to increase the potential for DFS companies to grow and to improve the financial health of individuals and MSMEs in each market.

## Scope and Methodology

We conducted primary and secondary research in India and East Africa, rooted in the experience of DFS entrepreneurs themselves. This report builds on a strong body of existing research: FSD Kenya has examined the issue of financial health from the customers' perspective, proposing DFS solutions to help families earn and save more money.[9] Investors and DFIs, such as Accion and DFID, have explored barriers to scale from the investors' perspective, recommending innovative financing mechanisms that can help investors close what Monitor Deloitte calls the "Pioneer Gap": the gap between investors who want to deploy capital but can't find investable opportunities, and entrepreneurs who want to grow, but can't find investors.[10]

To complement the existing research, we highlight the voices of DFS entrepreneurs operating in both of these markets, and provide a comparative analysis of the experiences of startups, investors, and other market players. We then outline recommendations for ecosystem players on what can be done to help unlock the ability of scale for high-potential DFS entrepreneurs.

## Scope

*Geographic Scope*

We examined barriers to scale for DFS companies in India and East Africa (Kenya, Uganda, Tanzania, and, to a limited extent, Rwanda). Among emerging markets, these two regions are pioneers in financial inclusion and entrepreneurial innovation, provide a representative comparison of financial-services systems in emerging markets, have different investment landscapes, and have recent developments that provide increased opportunity for DFS companies to succeed.

Countries in East Africa have allowed mobile-network operators [MNOs] to dominate aspects of the financial services market, and the region is leading the world in the adoption of mobile money. For its part, India has a highly regulated, bank-led financial-services system, yet the government has made financial inclusion a policy priority. The IndiaStack (a set of APIs that allows governments, businesses, startups, and developers to utilize a unique digital infrastructure to solve India's problems to move toward a presence-less, paperless, and cashless service delivery) is one of the most comprehensive initiatives in the world focused on increasing access to the digital economy.[11] By examining both regions, this study provides a comparative analysis of two markets with broad similarities but critical differences in order to gain additional insights into challenges and potential solutions.

*Types of Companies*

The study focused primarily on the challenges for high-growth, venture-backed DFS companies because of their potential to rapidly gain market share and extend digital financial services to low-income users. Because mobile channels are the most dominant in India and East Africa, the study emphasized financial services delivered over mobile phones (versus by other digital channels, such as computers).

## Box 1:
## Definition of Digital Financial Services Companies

DFS Companies are those that support a range of services delivered over digital channels to meet the financial needs of people and businesses, such as storing, spending, and borrowing money; managing expenses; and transferring risk. Customer relationship management [CRM] and pay-as-you-go technology companies are within the scope of this research; however, nonfinancial commerce enablers (e.g., OLX, Yelp, OpenTable) are not.

For the purposes of this report, we divide DFS companies into two types: those providing basic digital financial services and those providing advanced digital financial services.[12]

**Basic DFS** includes any payments companies, including peer-to-peer and point-of-sale payments, mobile wallets, and mobile savings.

**Advanced DFS** includes more complex, time-dependent transactions, such as consumer or MSME credit, invoice financing, asset-based financing, and insurance.

Basic and advanced DFS companies are often interdependent; in fact, many companies offer both services as a way to enhance their products and diversify revenue streams. It's useful to break them down in this framework when thinking about the specific infrastructure required for each category to operate and scale.

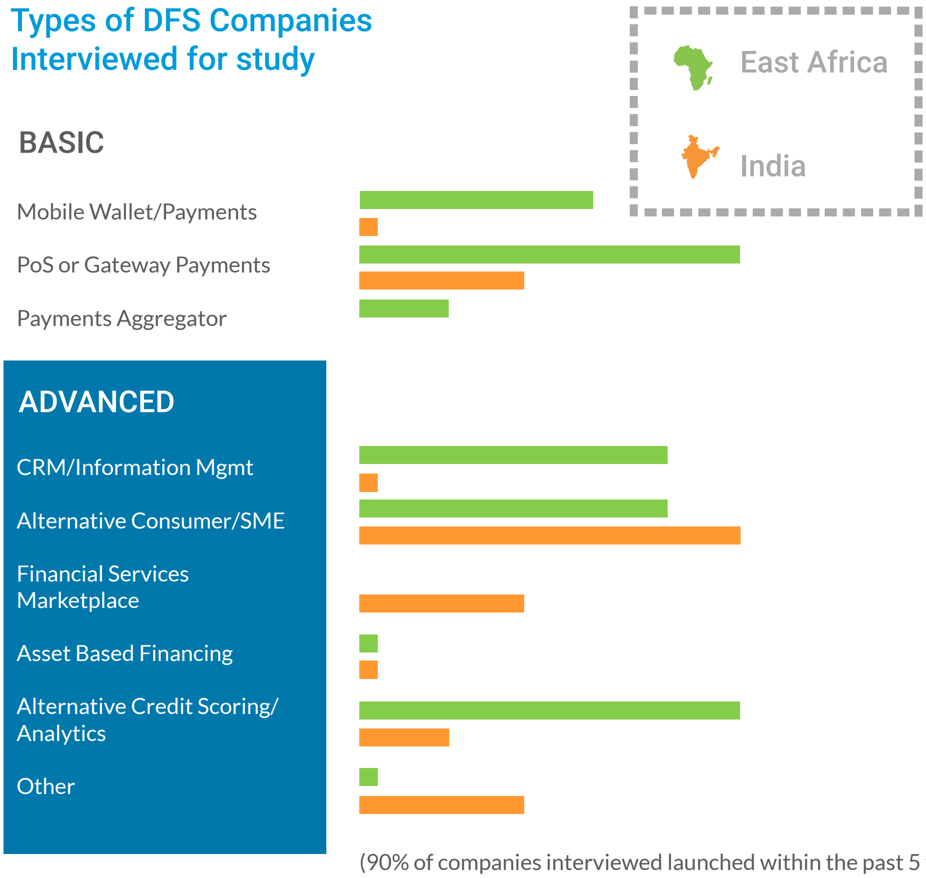
## Methodology

Literature Review: Village Capital began by reviewing the existing literature focused on digital financial services and financial inclusion more broadly, prioritizing publications from the last five years. The literature review informed the questions we asked during the interviews.

Interviews: The anchor for the findings in this study are from the experience of entrepreneurs themselves. From September 2016 to February 2017, Village Capital conducted 55 interviews with entrepreneurs and 23 interviews with investors and other stakeholders across India and East Africa, diving deep into the experiences of DFS companies operating in these markets.

Summit: In November 2016, Village Capital held a Scaling Digital Financial Services summit in Nairobi with over 50 participants from India and East Africa to validate the preliminary findings derived from the literature review and interviews.

During the interviews and summit, entrepreneurs, investors, and other stakeholders identified more than 30 unique challenges. Except for a few case studies presented in this report where we obtained explicit permission from the companies to use their information, we kept all interview data anonymous to encourage open and honest feedback. The following findings are a synthesis of the aggregated data, focusing on the challenges identified most often, and those that have the largest impact on the ability for a DFS company to grow.




(90% of companies interviewed launched within the past 5 years)

## Box 2:
## What Does Scale Mean?

We asked DFS companies, investors, funders, and other ecosystem players to define what it means for a company to "scale." The definitions varied, reflecting the definer's role within the broader DFS ecosystem. Here are some common themes:

*Entrepreneur Perspective:*

- **Growth of company:** Business indicators such as securing a percent of market share, generating a specific amount of revenue, achieving financial sustainability or profitability, obtaining an exit or IPO, expanding to multiple markets, or increasing brand recognition.
- **Outcome measures:** Impact measures such as reaching a certain number of end users or beneficiaries, or increasing financial inclusion in a market by a specific percentage.
- **Combination measures:** Combining growth and outcome measures such as achieving a certain percent of market share, generating a certain amount of revenue, and reaching a specific number of end users.

*Investor Perspective:*

- **Product-Market Fit and Path to Exit:** The point when customer acquisition becomes less costly, the product is rapidly gaining market share, and the company moves toward profitability.

*Philanthropy Perspective:*

- **Market Penetration of Financial Services:** The increased availability and access to financial services in the market. From this perspective, scale isn't specific to one company, but instead could be measured by the ability to replicate a service or business model across many different companies to increase market penetration of the financial service or set of services.

# PART 2:
# OPPORTUNITY IS KNOCKING, YET TOO FEW INVESTORS ANSWER

## A Common Challenge Across Regions: The Issue of Raising Money

When we asked DFS companies in this study their biggest barrier to scale, the vast majority cited "access to financial capital." Not only was it the most commonly cited barrier, it was also the one companies most desired to solve.[13]

Although we recognize that not all DFS companies should receive investment capital, and that many DFS companies will fail for a variety of reasons, through our research we found that too many high potential companies that could build successful and innovative businesses are struggling because they don't have the necessary capital. Simply put, investors are leaving great investments on the table.

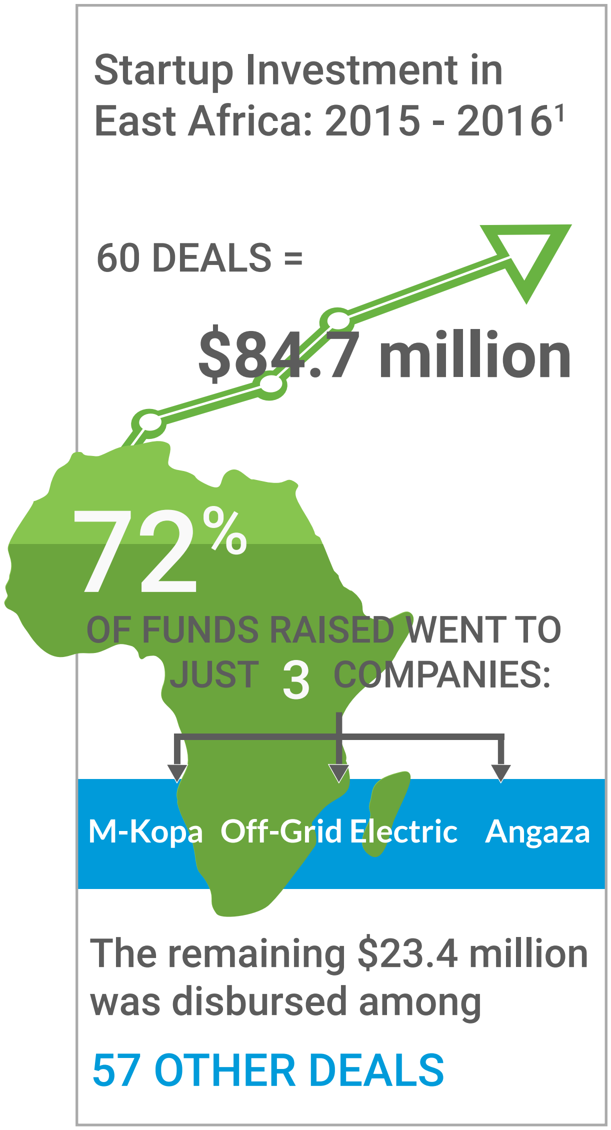
In this section we look more deeply at the investment climate in East Africa and India.

## East Africa: While DFS companies are "building off the rails" of mobile money, investment remains concentrated in only a few players.

Mobile-phone penetration and mobile money have revolutionized the financial-services sector in East Africa. The success of M-Pesa, the Kenya-based mobile-money platform and payment service, is often heralded as a case study for the potential of mobile money to rapidly transform the financial-services sector of a country or an entire region.

The penetration of mobile payments has paved the way for other types of digital financial services. Over the past five years, a growing number of entrepreneurs in East Africa have built on the existing mobile payments infrastructure to offer solutions in credit, savings, and insurance that can help traditionally underserved and excluded populations afford essential services like energy and health care.

The region is starting to see a few companies gain traction and receive global attention. Off Grid Electric, an off-grid, pay-as-you-go solar company that raised $25 million[14] in 2015, reports that it now installs over 10,000 units and creates 40 new jobs each month for local entrepreneurs who sell the products around Tanzania. Branch, an alternative-credit-scoring and consumer-credit company that launched in Kenya in 2015, raised $9.2 million in 2016, provided at least 1,000 loans as of September 2016, and has extended operations to Tanzania.[15]




Although the early traction for these companies is hopeful and the positive attention is well-deserved, there are many other worthwhile DFS companies in East Africa that are not being given a fair shot. For a region that leads the world in the adoption of mobile money, there has yet to be an example of a DFS company that has truly scaled, outside the unique case of M-Pesa.

The region needs to see many DFS companies grow in order to close the financial-inclusion gap that is affecting 66 million people." [16] To do this, more companies need to raise the investment capital necessary for growth.

Despite the market opportunity, in the past two years **72% of all startup investment in East Africa has gone to only three companies.** If we include the Branch and Tala raises of $9.2 million and $10 million respectively, which were not included in the Disrupt Africa dataset, 77% of startup investment in East Africa went to just five companies. Why is there such a concentration of capital while the vast majority of companies are unable to raise a full round, if they are able to raise funds at all?  We'll dig into this question later in this report.

[1]Data obtained from the Disrupt Africa: African Tech Startups Funding Reports for 2015 and 2016, calculating the total Kenya, Tanzania, Uganda, Rwanda.

Statistics are calculated from the Disrupt Africa dataset. We recognize this dataset is incomplete and does not include some known deals, Branch, which raised $9.2 million in 2016, and Tala, which raised $10 million in 2015 (and $30 million in early 2017). If we include those numbers in the 2015 and 2016 data set, the total amount raised is actually $103.9 million, and the concentration of capital is 77% into only 5 companies (Branch, Tala, Angaza, M-Kopa, and Off Grid Electric).

## FarmDrive: Developing innovative data analytics to help smallholder farmers in East Africa gain access to the credit they need to improve productivity

Africa is home to 25% of the world's farmland, yet it generates only 10% of all crops produced globally. Some estimates put farmer production at only 40% of potential, due to a lack of quality inputs. There is an estimated $50 billion funding gap for smallholder farmers in Africa. A major reason farmers lack access to capital is because financial institutions do not have operationally efficient methods of accurately assessing smallholder farmers' risk.

FarmDrive is solving this problem through a credit risk assessment model that builds credit profiles for farmers using alternative data analytics. FarmDrive provides a simple SMS platform on which farmers can apply for and receive loans via mobile money wherever they are, track their revenues and expenses, and view reports on their farming and economic activities. The farmers' data, combined with agriculturally salient big-data sets (e.g., climate, soil quality, market, satellite imagery), is used to inform their credit scores. The credit scores are then provided to financial institutions, enabling them to properly assess farmers' creditworthiness and provide much-needed capital.

In 2016, FarmDrive registered 3,000 smallholder farmers across 16 counties throughout Kenya, and successfully partnered with Musoni, a microfinance institution, to pilot their model, distributing loans to 400 farmers.

FarmDrive is an example of a startup in East Africa that is building on the prevalence of mobile technology to create a solution that could improve access to financial services for thousands of smallholder farmers. We will use FarmDrive throughout this report to illustrate many of the barriers East African DFS companies face.

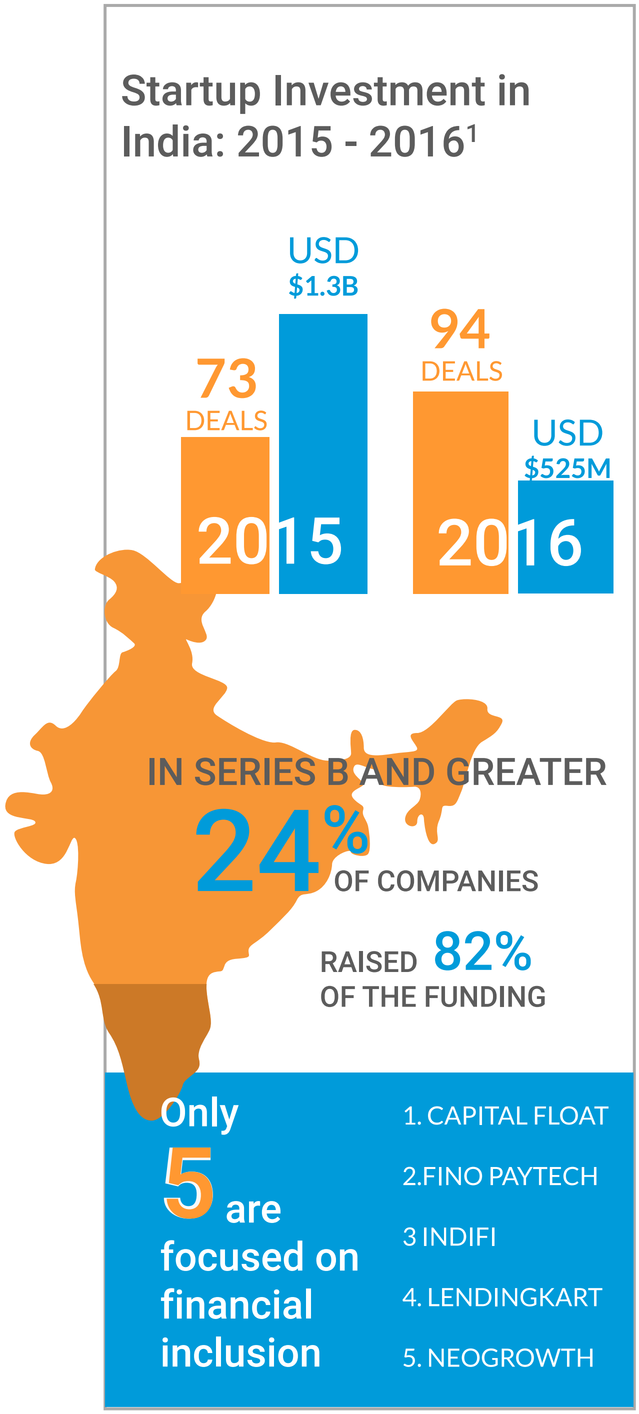
## India: Although DFS companies are leveraging an enabling policy environment, attracting follow-on capital is a major challenge.

The government in India has played a vital role in encouraging new DFS businesses. Prime Minister Narendra Modi has taken dramatic, and sometimes controversial, steps to promote financial inclusion.[17] Chief among these policy initiatives is the IndiaStack, a set of technologies that enables governments and businesses to move away from cash and toward a digital economy. Supporting IndiaStack is India's national biometric ID program, Aadhaar - "the world's largest data management project"[18] - which has issued over a billion unique identification numbers.[19] In addition, the Pradhan Mantri Jan Dhan Yojana [PMJDY; in English, the Prime Minister's People Money Scheme] has yielded more than 255 million new bank accounts. According to a report by Citibank, these initiatives have "dramatically increased the customer base" for DFS companies.[20]

A new wave of fintech startups has sought to capitalize on this growth. As of March 2017, there were nearly 1,500 DFS ventures in the online startup database Traxn, more than 900 of which launched between January 2014 and March 2017.[21]

The market is starting to produce several notable successes. In 2016, Nasper's PayU acquired Citrus Pay, an online-payments company, for $130 million - one of the largest-ever acquisitions in India's fintech industry. Citrus Pay now claims a base of 15 million registered users with more than 4,000 merchants on the platform. Capital Float, an MSME mobile-lending platform that offers a credit-scoring model for MSMEs, has raised over $40 million in Series A and B rounds since 2013.[22] As of mid 2016, Capital Float expects to grow 20 percent month-over-month in fiscal year 2017.[23]

Still, more than 35% of the population doesn't have access to a formal bank account, 98% of transactions are conducted in cash, and MSME's face a credit gap of about of about 40 to 50%.[24] Those numbers increase when looking at rural




[1]Data obtained from Tracxn on March 24, 2017.

Data regarding the total amount of investment only includes investments with disclosed raise amounts. In 2015, 18 of the 73 deals were undisclosed, and in 2016, 34 of the 94 deals were undisclosed.

communities. In a country of 1.3 billion people, 67% of whom live in rural areas, India needs to see hundreds more DFS companies scale, particularly those focused on customers outside of major cities.

Although India benefits from a much more active investment landscape than East Africa, very few DFS companies successfully raise follow-on investment, and this is particularly true for startups focused on financial inclusion. Of the companies that raised follow-on investment (Series B or greater) in 2015 and 2016, **only five had business models with the potential to improve the financial health of the underserved.**

### Loans4SME: Enabling high impact sector SMEs to obtain the critical finance that they need to grow

For the estimated 36 million SMEs in India, working capital remains a key challenge - one that Loans4SME is hoping to solve. The supply gap for SME debt in India is currently $200 billion; looking just at high-growth, high-impact sectors such as renewable energy, cleantech, education, and health care, the need for debt funding is estimated to be at least $44 billion over the next five years. Although lenders have shown an interest in lending to such businesses, their risk-assessment models are built around traditional manufacturing businesses and asset-based lending. Moreover, for many lenders, the small ticket sizes of SME loans make building out their own origination teams and risk-assessment models unviable. For their part, many small businesses lack the knowledge and capacity to assemble the necessary paperwork and reach out to the right lenders.

Simmi Sareen and Balawant Joshi saw this critical financing gap and launched Loans4SME to finance creditworthy businesses by moving away from collateral-based lending. Loans4SME is a marketplace that connects creditworthy businesses to lenders through a combination of a robust risk-assessment algorithm and an innovative cash-flow-based structure. As of March 2017, Loans4SME had developed strategic partnerships with more than 25 lenders, representing more than $100 million of committed capital for loans sizes ranging from $30,000 to $1 million; and facilitated 20 loans through its platform to small businesses operating in renewable energy, cleantech, infrastructure, and other high-impact areas.

Loans4SME is an example of a startup that could increase access to financing for SMEs across India. We will use Loans4SME throughout this report to illustrate many of the barriers Indian DFS companies face.

## Why leave deals on the table?
## Simply put, investors perceive them as too risky.

Why are only a few DFS companies able to attract investment capital while the rest are left behind? Through our interviews, we heard that investors see DFS companies in East Africa and India as riskier than other investment opportunities in the regions.

Investors evaluate the *potential* for a company to reach scale and exit (risk) against the *return* on *investment* should the companies achieve an exit (reward). They forecast potential by looking for (1) evidence of progress across different aspects of the business, and (2) patterns in the businesses that are a proxy for potential. **The less evidence of progress, the more investors will rely on other proxies for potential, such as the founders' educational background or networks.**

Village Capital visualizes this decision-making process in a framework called the Village Capital VIRAL Pathway (Venture and Investment Readiness and Awareness Levels). VIRAL illustrates how different stages of investment capital fuel a company's path to scale and exit, and the progress that investors tend to evaluate at each stage.[25] Every investor has some version of these factors that he or she uses to evaluate investments; VIRAL is a helpful way to understand what investors tend to look for, regardless of the industry or market, and it provides a transparent framework to discuss progress and potential.

## The Village Capital VIRAL Pathway (larger version in Appendix I)

**VILLAGE CAPITAL VIRAL PATHWAY** © Village Capital 2017

| Level | Name | Team | Problem and Vision | Value Prop | Product | Market | Business Model | Scale | Exit | Type of funding typically closed at this level |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | Exit in Sight | Team positioned to navigate M&A, IPO. | Global leader in stated vision. | Cited as the top solution in the industry solving this problem. | Product recognized as top in industry. | Clear line-of-sight to industry dominance. | Minimum 2x revenue growth for multiple years. | Strong unit economics for multiple customer segments. | Growth with exit. | Acquirers |
| 8 | Scaling Up | Team is recognized as market leaders in the industry | Systems-Level Change validated. | Multiple renewals with low sales effort. Customers in multiple markets love the product. | Strong customer product feedback in multiple markets. | Brand established. Hard-to-beat partnerships for distribution, marketing, and growth. | MOM revenue meets industry standard. | Growth of customer base accelerates month-on-month. | Team has turned down acquisition offer. | Close Institutional VC for Recurring Revenue + Growth |
| 7 | Hitting Product-Market Fit | C-suite as good or better than founding CEO and can stay with company through its growth and exit phases. | Impact is successfully validated. | Majority of first sales in target market are inbound. | Product is built for scale and additional offerings in progress. | Sales cycles meet or exceed industry standard. | Business model validated - Validation of strong unit economics. | Evidence of strong unit economics across multiple markets. | Team has strong relationships with multiple acquirers. | |
| 6 | Moving Beyond Early Adopters | Team has proven sales, product dev skills, and management ability to support a growing team for scale. | Sales validate impact tied to solution and grow as solution scales. | Sales beyond initial target customers. Customers love it and are referring the product to others. | Complete product with strong user experience feedback. | Supply/distribution partners see their success aligned with the company's success. | Sales begin to map to projections. Evidence of decreasing CAC with growing customer base buying at target price. | Company has cleared regulatory challenges and (if applicable) is implementing a strong IP strategy. | Team has identified specific acquirer(s) or other exit environment. | Close Institutional VC for 1st Sales, Market Expansion |
| 5 | Proving a Profitable Business Model | Team has clear sales/ops understanding and strategy. | Evidence of impact tied to solution-the company has evidence that by growing the business, company solves the problem. | Target customers love the product and want to keep using it. | Fully functional prototype with completion of product for wide commercial distribution in sight. | Team is having conversations with strategic partners to capture their market faster/cheaper than the competition. | Financial model with evidence of valid projections to reach positive unit economics. | Vision and initial evidence of positive unit economics in two markets. | Inbound interest from large strategics. | Close Round with Angel and Early VC |
| 4 | Validating an Investable Market | Team has clear understanding of how their target market operates and has strong industry contacts in this market. | The company can articulate system-level change - how this solution would transform the industry. | Evidence of differentiation through initial target customer feedback that the solution solves their problem significantly better than others in the market. | Team has clear understanding of product development costs and how to build the initial product cost-effectively. | Evidence of $1B+ total addressable market. | Team has financial model with cost and revenue projections articulated and a strategy for hitting these projections. | Initial evidence that multiple types of customers find value in the solution or in an extension of the product that the company is well-positioned to develop. | Evidence of growth trajectory that could lead to IPO, acquisition, or self-liquidating exit. | Friends and Family, BootStrap<br>Angel/Seed Funding Starts |
| 3 | Solidifying the Value Proposition | Team has technical ability to build fully functional product and has a clear understanding of the value chain and cost structures in their industry. | The company can articulate why they're the best ones to solve this problem. | Evidence that customers will pay the target price. For B2C - 100 customers, for B2B - 5 customers and conversations with multiple stakeholders in each. | Team has built a working prototype and a product roadmap. | Initial evidence through sales that team can capture initial target market. | Team can articulate projected costs along the value chain and target cost points to reach positive unit economics. | Clear strategy to move to multiple markets. | Initial evidence that the solution already solves the problem better than any incumbents. | Grants for R&D (Hardware) |
| 2 | Setting the Vision | Team has senior members with lived experience of the problem and/or deep understanding of their target customer's problem. | The team can solve the problem and can articulate its vision at scale - what does the world look like if they succeed? | The team has potential customers who provide evidence that solution solves key pain point - product is a painkiller, not vitamin. | Team has a basic low-fidelity prototype that solves the problem. | Team understands any regulatory hurdles to entering the market and has a strategy to overcome them. | Company can point to pricing and business models of similar products in the industry as further evidence that their revenue assumptions hold. | Initial evidence that multiple markets experience this problem. | Vision for growth has company solving a large piece of the global problem in 10 years. | |
| 1 | Establishing the Founding Team | Strong founding team - at least 2 people with differentiated skillsets. | Team has identified a specific, important, and large problem. | Team has identified their hypothesis of their target customer - the specific type of person whose problem they are solving. | Team has ability to develop low-fidelity prototype and has freedom to operate - not blocked by other patents. | Team can clearly articulate total addressable market, the percentage they will capture, and initial target market. | Team has identified an outline of revenue model. | Team has identified multiple possible markets or customer segments and has aspiration to scale. | Team understands what an exit is and has a vision for how they will ultimately provide a return for their investors. | |
| | | Team | Problem and Vision | Value Prop | Product | Market | Business Model | Scale | Exit | Type of funding closed at this level |

DFS companies face a variety of systemic challenges that make it time-consuming - and therefore expensive - for a DFS startup to achieve the proof points investors look for when evaluating potential (as the Village Capital VIRAL Pathway lays out). Investors perceive these systemic challenges as risks that impact the startup's potential to scale and the potential return on investment (in addition to macroeconomic factors; see Box 3). We dive into these specific challenges in the next section.

### Box 3:
## Macroeconomic Factors that Impact the Investor Risk/Reward Calculus

A number of macroeconomic factors in both India and East Africa (which are outside of the scope of this report) can make it difficult, risky, and unprofitable to invest in startups. Among the issues:

***High "risk-free rate":*** An investor determines the required rate of return on an asset by adding the "risk-free rate" and a risk premium. Investors most often use short-term government bonds as a proxy for the "risk-free rate." In India and East Africa, the government bonds have a higher interest rate than in more developed markets. This means that companies need to return more than the government bond to be attractive to investors.

| Market | Risk Free Rate[26] |
|---|---|
| India | 6.25% |
| Kenya | 10% |
| Uganda | 12% |
| United States | 0.75% |
| United Kingdom | 0.25% |

***Exchange-rate risk:*** Local entrepreneurs who obtain foreign debt often must repay that debt in the foreign currency. This is risky and, at times, unaffordable for a local entrepreneur who is earning revenue in a local, unstable currency, but must repay a loan in a foreign, more stable currency.

***Merger/Acquisition Partners:*** The limited number of midsize companies that could potentially acquire early stage companies, particularly in East Africa, reduces the number of viable exit opportunities for investors.

# PART 3:
# CHALLENGES THAT INCREASE PERCEPTIONS OF RISK ON THE PATH TO SCALE

DFS companies in East Africa and India are often implementing new business models in challenging markets, facing systemic difficulties that make it time-consuming and expensive to build a profitable business. These companies frequently need additional capital to overcome these challenges, including working capital to demonstrate traction, endure long sales-to-revenue cycles, and eventually validate their business models.

Investors look for evidence that a company can reach product-market fit - the point when customer acquisition becomes less costly, the product rapidly gains market share, and the company moves toward profitability. However, the underlying challenges that DFS companies face inhibit their ability to prove that they can achieve product-market fit. This creates a conundrum: DFS companies can't raise capital without evidence of a profitable business model, but they can't show this evidence without capital to overcome inherent challenges in the market.

As a result, investors see DFS companies in East Africa and India as risky. The following systemic challenges increase investors' perception of risk:

1. **The Human Capital Trap:** Investors often won't invest unless they're confident about a team's ability to scale their business and provide a return. However, because specific skill sets are harder to find in India and East Africa, DFS companies can't afford good talent without raising capital.

2. **Business Model Constraints:** Investors want to see proof of a profitable business model, but building a DFS business in East Africa and India means moving the markets from an analog to a digital economy. The cash- and paper-based nature of these markets requires companies to overcome structural factors that make it challenging to prove out a profitable business model that can scale.

   a. **Digital-Payments Infrastructure is Inaccessible:** Most digital financial services rely on a digital-payments infrastructure, including a robust cash-in/cash-out network and digital connectivity. Yet for many DFS companies in India and East Africa, it is difficult to access the digital-payments infrastructure necessary to deliver their solution.

   b. **DFS Companies Face High Customer Acquisition Costs:** Because potential customers mistrust key products in the digital economy and have not adopted them, DFS companies in India and East Africa face higher costs of customer acquisition that can block the path to product-market fit.

3. **The Debt Capital Gap:** Investors want to see proof of traction, but DFS companies, particularly alternative lending companies, need innovative and risk-tolerant working capital to demonstrate proof of concept.

4. **The Pattern Recognition Problem:** A perceived risk is that many entrepreneurs don't align with patterns that serve as a shorthand for potential for investors, such as degrees from prestigious universities or stamps of approval from accelerator programs.

In this section, we examine each of these challenges and how they manifest themselves differently in East Africa and India.

## 1. The Human Capital Trap

### Startups need capital to build a strong team, but need a strong team to attract capital

Investors often emphasize the importance of team, and want to see a strong team in place before investing. However, candidates with certain skill sets can be hard to find in India and East Africa. In fact, according to a Rippleworks study that surveyed over 600 entrepreneurs, talent, uniquely, becomes more of a challenge for entrepreneurs over time.[27]

> *"[Human capital] is miles and miles above everything else. It is, without a doubt, the biggest binding constraint to growth. There's human capital, and then there's everything else."*
>
> Paul Breloff, cofounder and CEO, Shortlist[28]

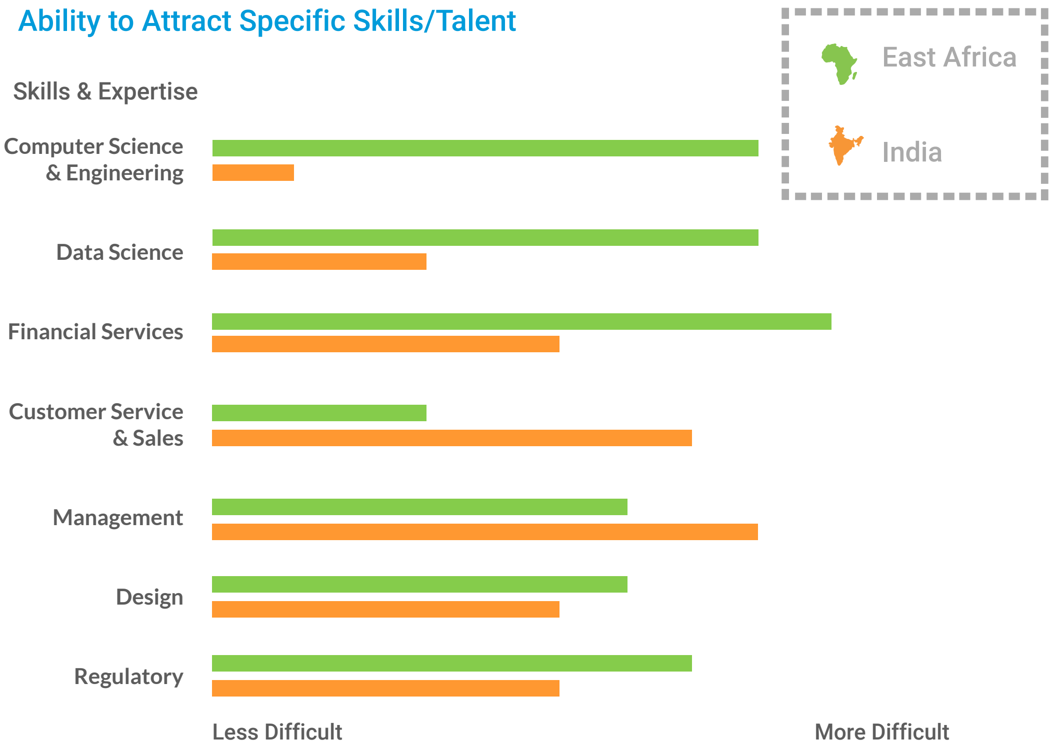
### Good talent is hard to find

DFS companies primarily need employees with three specific sets of skills (other than necessary operational skills such as accounting, sales, etc.):

- **Technical skills** (e.g., software developers, software engineers, data scientists)
- **Financial-services skills** (e.g., banking and underwriting, customer service, and sales)
- **Management skills** (e.g., ability to build and manage agent networks)

It is challenging for companies in East Africa and India to find all of these skill sets locally.

Ability to Attract Specific Skills/Talent




Source: Interviews from *Breaking the Pattern: Getting Digital Financial Services Entrepreneurs to Scale in East Africa and India* Study

## The Availability of Technical and Financial Services Talent: Different Stories in East Africa and India

In East Africa, the supply of technical and financial skills does not yet meet the demand in the region's nascent tech industry. Two DFS companies we interviewed that have offices in both San Francisco and East Africa told us that they leverage their San Francisco offices to find tech talent (and attract investors) and their East African offices to for on-the-ground operations. Another company we interviewed actually had to slow operations because of the challenges in finding midcareer professionals with financial-services skills.

> *"It hard to find midlevel career financial-services people who have been trained to think creatively. At banks, the products are vanilla- rinse and repeat. It's hard to find people who want to get ahead of the curve on a new product"*
>
> East African entrepreneur

In India, the quality and quantity of technical skills has grown exponentially over the past two decades. In fact, technical talent is a known strength for the Indian market. There are also more workers available with financial-services skills, though they can still be hard to attract.

## Management Skills Are a Challenge in Both Regions

DFS companies in both India and East Africa also struggle to find managers with technical and financial services skills. A RippleWorks report highlighted that 75% of the more than 600 entrepreneurs they surveyed stated that filling senior leadership roles was very challenging.[29]

> *"I can't find people who can manage; I have great technical talent but the lack of people who can communicate and manage effectively is hurting the business as we grow."*
>
> Indian entrepreneur

Echoing this challenge, several of the Indian investors we interviewed noted that once Indian companies reach a certain size, growth tends to stall because they are unable to find middle managers who can take the management workload off the founding team.

## Attracting good talent is highly competitive

DFS companies face fierce competition when recruiting the limited number of candidates with these specialized skills. As in many emerging markets,[32] startups are at a distinct disadvantage when competing with large institutions because candidates see startups as the less stable, lucrative, and prestigious option.

> *"How do you pull a traditional retail banker out of a bank and get them to work for a risky startup that is doing interesting things?"*
>
> INVESTOR THAT INVESTS IN BOTH INDIA AND EAST AFRICA

In East Africa, it is extremely difficult to convince candidates to leave their jobs to work for a risky startup. Like startups anywhere, DFS companies with limited capital offer equity to supplement employee-compensation packages. However, equity is not yet a widely-accepted form of compensation in the East Africa because there haven't been enough notable exits or acquisitions to prove the economic value that stock could provide.

> *"Experienced financial-services managers know they are in demand. As a result, they are very expensive"*
>
> East African entrepreneur

Further, workers typically have dependents even beyond their immediate family, increasing their need to find and keep well-paying, stable employment. As one Kenyan entrepreneur explained, "People who work in startups in Africa work on the side, because they can't afford to take the risk."

### Box 4: Startups Fail to Prioritize Hiring as a Strategy

In addition to facing challenges finding candidates with specific skillsets, startups also often do not adequately emphasize hiring in their growth strategy. Village Capital's 2014 report Show Me What You Can Do found that 90% of the entrepreneurs interviewed viewed human capital as an administrative rather than a strategic function.[30] Startups don't account for the true value of a good hire vs. a bad hire in their growth strategy and don't budget time and resources for hiring correctly.

Yet there is little room for error when making hiring decision. According to Noam Wasserman's The *Founder's Dilemmas*, which analyzed successes and failures of thousands of SGBs, 65% of SGBs that fail do so because of hiring the wrong person.[31]

The challenges are similar in India, where there is a strong cultural emphasis on working for large corporations, banks, or the government, due to job security and prestige. Often, candidates focus on getting a stable job with a predictable and consistent income. As one investor noted, "brands matter: working for a well-known and prestigious company, such as a consulting firm or bank, will improve your marriage prospects."

As a result, startups must compete with global companies such as PwC, Google, and Oracle, as well as with banks and stable government positions.

BUYMORE P.O.S

## Buymore struggles to find and attract talented developers in East Africa, where equity doesn't hold much value

In East Africa, 86% of merchants capture and store their sales and expense data manually. As a result, they are more vulnerable to theft, are unable to determine their profit margins, and lack credible data that they would need to gain access to credit facilities.

Buymore is a Kenya-based merchant-payments company that turns any smartphone into a point-of-sale [POS] terminal for merchants to capture sales, record expenses, manage inventory, and accept credit cards, M-Pesa, or cash. The POS provides small merchants with better analytics, insights into their business, and the ability to get access to credit facilities.

To acquire more customers and continue offering them support, Buymore needs to design - and build on top of the already existing minimal viable product - a simple and user-friendly POS interface that is easy for all merchants to use, including those with limited familiarity with digital technology. In addition, Buymore has to train merchants to incorporate the analytics into their business.

Buymore's CEO, Tony Kuchio, noted that a major barrier to increasing customer acquisition is the difficulty the company has had hiring talented developers and field agents who can train merchants. Due to financial constraints, Kuchio has had to hire and train inexperienced staff. Once trained at the company's expense, employees often leave for well-known, better-paying corporations. To make up for the lack of financial capital at his disposal, Buymore began offering increasing amounts of equity. However, "no matter how many shares you offer," workers in East Africa continue to prefer large corporations to startups.

## 2. Business Model Constraints

**DFS companies face challenges in building a profitable business in markets that have not yet moved to the digital economy**

In addition to talent, the cash- and paper-based nature of India and East Africa requires DFS companies to overcome structural factors that make it challenging to prove out a profitable business model that can scale.

In this section we discuss challenges facing the two categories of DFS companies we laid out earlier: basic financial services companies and advanced financial services companies.

# A. Inaccessible Digital-Payments Infrastructure

Basic financial services companies need to integrate into or build a digital-payments infrastructure to conduct digital transactions, which is the first step necessary to transition to a digital economy. Digital-payments infrastructure refers to the underlying systems that must be in place in a given market to conduct cashless transactions.

### Box 5:
### The Digital-Payments Infrastructure

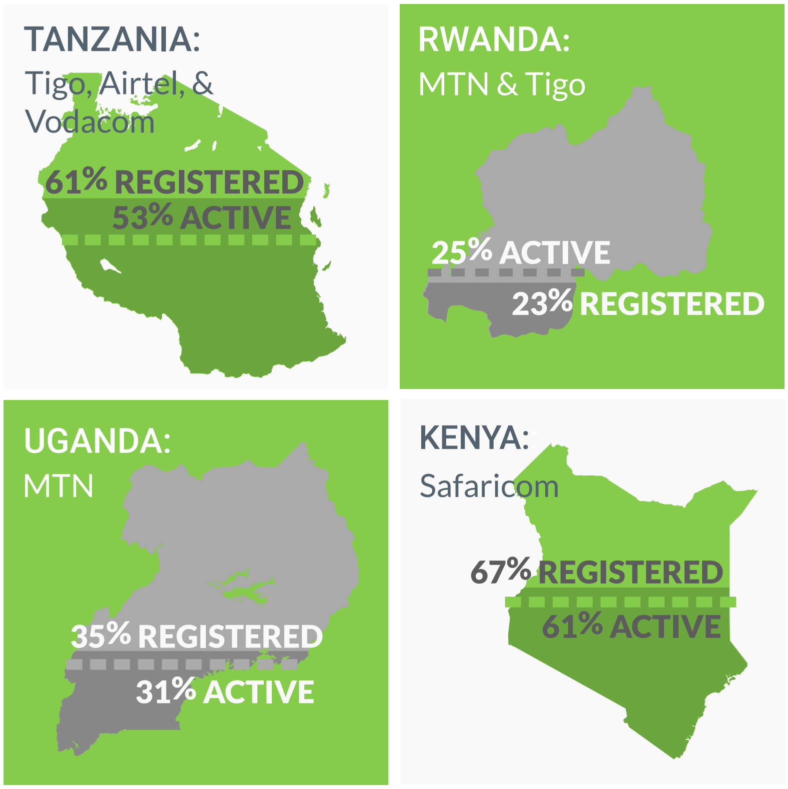
The foundations of a country or a region's digital-payments infrastructure are the following:[33]

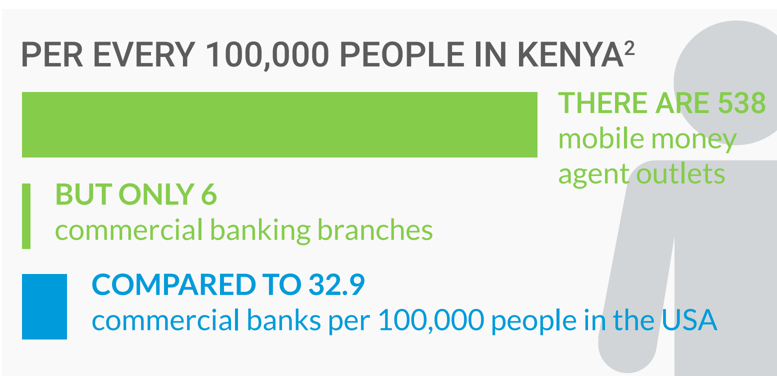
*Digital Connectivity:* Digital connectivity, including the availability of digital devices, is necessary for DFS companies to reach end users. In India and East Africa, this is most often accomplished through mobile-phone networks.

*Cash-In/Cash-Out Networks:* These networks, which may be composed of brick-and-mortar banks, ATMs, or agent networks distributed throughout the market, allow end users to exchange cash for digital value, and vice versa.

*Digital Account:* A digital account, such as a mobile wallet or bank account, stores the value of the cash provided through the cash-in/cash-out network.

## MOBILE MONEY IN EAST AFRICA[1]




[1]Data from http://finclusion.org/data_fiinder/, 2015

[2]Data from GMSA, State of the Industry Report on Mobile Money: 206-2016 http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/02/GSMA_State-of-the-Industry-Report-on-Mobile-Money_Final-27-Feb.pdf

Challenges in the digital-payments infrastructure will also have a downstream impact on many advanced digital financial services (discussed later in this report) that integrate directly or indirectly with this infrastructure.

## Digital-Payments Infrastructure in East Africa: A Mobile-Network-Operator Dominated System

In East Africa, except Rwanda, MNOs dominate the highly integrated digital-payments infrastructure, including digital (mobile) connectivity, an extensive cash-in/cash-out agent networks, and, oftentimes, digital wallets.

### Basic DFS companies are building on innovative payment services

Companies providing basic DFS services in the region are building innovative businesses that generally go beyond simple transactions and are focused on improving the purchasing power of MSMEs and poor individuals.

To operationalize these businesses, basic DFS companies often must integrate with MNOs to leverage their communication technology, such as short message service [SMS], unstructured supplementary services data [USSD], and sim toolkit [STK], and their existing mobile-money platforms.

## Pros and Cons of an MNO-Dominated Market

This MNO-dominated system in East Africa has benefits and drawbacks. On the positive side, unlike DFS companies in India (discussed in next section), companies in East Africa can leverage extensive and integrated cash-in/cash-out agent networks, benefiting from wide-scale user adoption and limiting the need to integrate with multiple cash-in/cash-out agent networks. This provides a clear path for reaching a significant customer base, which is also already familiar with the basic benefits of mobile money.

On the downside, MNO control over the digital-payments infrastructure leaves basic DFS companies little choice but to integrate with MNOs, which can be detrimentally expensive, time-consuming, and often fraught with technical errors. For example, although prices can vary depending on the MNO, on the conservative side, a USSD channel may cost $1,500 per month, and initial integration may take up to two years.[34] "It becomes difficult to better the financial inclusion for the smallholder farmers," noted one company, referring to the high monthly fee. "It just becomes another nightmare." Another entrepreneur noted that to avoid a delay, they were forced to pay as much as $6,000 for initial setup costs. The cost and delay can break these early stage, low-margin DFS companies.

This problem is worse in Kenya, where Safaricom is the dominant MNO and has no major competitors. For example, the average cost of transferring $20 in Kenya is $0.37 versus $0.17 in Tanzania.[35]

*"Safaricom is a difficult company to work with - they are the largest and only relevant player, which gives them a ton of power."*

Kenyan entrepreneur

Payment aggregators such as Selcom, Cellulant, and Beyonic were launched to try to solve the problem of integration. DFS companies can choose to integrate with payment aggregators instead of the MNOs. Although a far more streamlined option, they add to the costs of delivering the product, taking as much as 5% per transaction.

These well-known challenges have led investors in East Africa to think twice before investing in companies that rely on MNO partnerships for scale.

*"I would be very hesitant to invest in a fintech company that had to integrate with an MNO as their primary distribution channel."*

East African Investor

## Box 6:
## Ways DFS companies can leverage partnerships with MNOs[36]

1. MNOs can provide inter-operable payment channels between a payment platform/mobile-money account and other digital financial services.

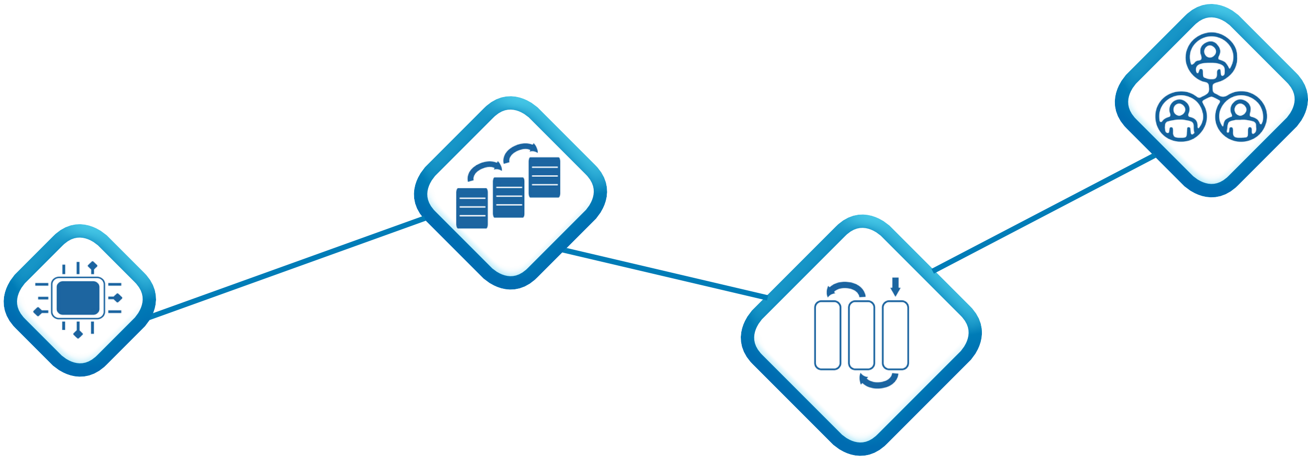
2. DFS companies can leverage MNO systems as a communication and distribution channel - for example, by allowing customers to engage with SMS, USSD, or STK.

3. MNOs maintain a wide sales and distribution network via cash-in/cash-out agents and call centers, which creates opportunities for marketing and cross-selling products.

4. MNOs have a large customer base and can provide DFS companies with access to their customers and data about those customers.

5. Digital-service providers can leverage the brand recognition of MNOs and other leading mobile-money providers to gain the trust of customers.

There are also efforts underway to improve partnerships between startups and MNOs. As an example, GSMA, an industry group for mobile operators, launched an accelerator in 2015 for that purpose.[37]



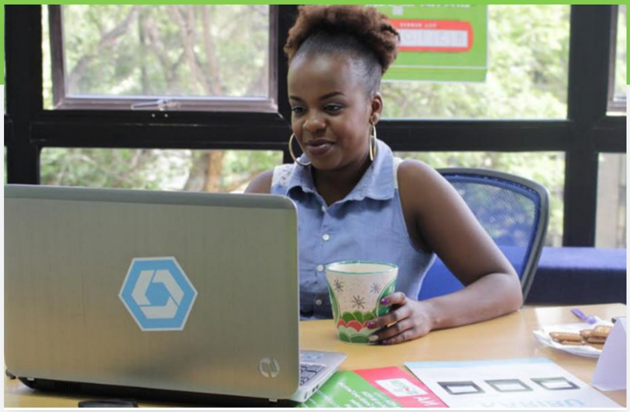
## Safaricom became a competitor with Kopo Kopo in East Africa

The two primary uses of mobile money are airtime top-ups and person-to-person [P2P] transfers. Just 1.9% of the transaction volumes are devoted to merchant payments.

Kopo Kopo launched in 2012 as a merchant-payments and merchant-cash-advance provider in East Africa to address this gap. The company originally launched in Kenya, providing low-cost POS terminals to merchants to help them accept payments on the M-Pesa network, as a consumer-to-business [C2B] model. The company then used the data captured from the digital payments to make cash advances to these merchants, providing them with working capital to expand their businesses.

From the start, Kopo Kopo relied heavily on M-Pesa - the dominant cash-in/cash-out provider in Kenya - for all transactions. However, M-Pesa soon released a product called Lipa Na-M-Pesa, or "Buy with M-Pesa," which was designed, in part, to give Safaricom a direct relationship with merchants. Suddenly, M-Pesa wasn't just providing Kopo Kopo with a platform, it was competing with Kopo Kopo for merchants.

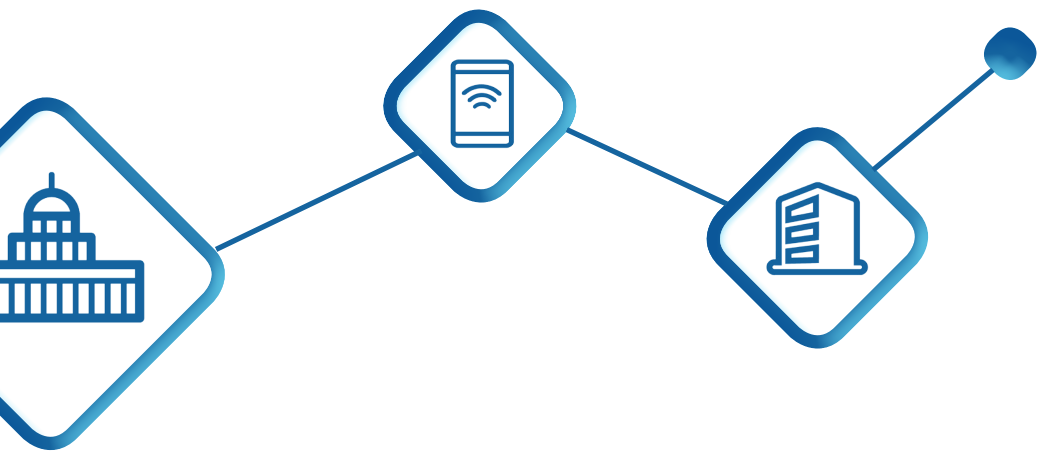
M-Pesa's dominant position as the owner of the cash-in/cash-out network put Kopo Kopo in a difficult situation: It was competing with Safaricom for merchants while simultaneously cooperating on the platform. As a result, Kopo Kopo reengineered its product offerings to add a range of customer-relationship-management data tools.



## Digital-Payments Infrastructure in India: A Fragmented and Insufficient Bank-Led System

In contrast to East Africa, the cash-in/cash-out network in India is insufficient because of weak penetration of digital payments, particularly in rural areas and outside of major cities. Ninety-eight percent of all transactions are still conducted in cash, representing 68% of transaction value.[38] As a result, users aren't familiar with digital currency, and the benefits from a network effect of digital payments have yet to take hold.

> *"Mobile money is a completely new concept in many parts of India."*
>
> Indian entrepreneur



### CASH IN/CASH OUT AGENT NETWORK IN INDIA

**BANK ACCOUNTS[1]**
% of adults

**65% REGISTERED**
**45% ACTIVE**

**MOBILE MONEY ACCOUNT**

**0.4% ADULTS**
**0.2% USERS**

per every 100,000 people in India

**COMMERCIAL BANKING BRANCHES**

**13.6 - India**
**32.9 - USA[2]**

**BUSINESS CORRESPONDENTS /ATMS**

**59.91 - India**
**164 - USA[3]**

[1] http://finclusion.org/data_finder/, 2015; GSMA, The Mobile Economy: India 2015: Active account defined as used in the last 90 days.

[2] International Monetary Fund, Financial Access Survey - http://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C

[3] http://data.worldbank.org/indicator/FB.ATM.TOTL.P5

[4] GSMA, The Mobile Economy: India 2016

## Box 7:
## The Evolution of the Cash-In/Cash-Out Network in India

This insufficient cash-in/cash-out network stems from the dominant role that banks have traditionally played in India. Until recently, cash-in/cash-out services were restricted to traditional banks or business correspondents tied to banks at the back end. As a result, customers using mobile money in India had to have a personal or business bank account, and either travel to a brick-and-mortar bank or an ATM, or rely on authorized-banking-correspondent services, all of which were difficult to access.

To alleviate this issue, in 2014, the government issued payment-bank licenses to a select group of nonbank entities, enabling them to operate mobile-payment transactions and offer interest on deposits. The license restricts the licensee from engaging directly in any other advanced digital financial services, such as credit or insurance, but allows them to distribute third-party advanced financial products.

Eleven institutions received preliminary approval to set up payments banks, including four MNOs that have broad reach across the country, and Paytm, the country's largest mobile-wallet and payment company. The benefits are still unknown because payments banks are not yet fully operational - many of the institutions that received preliminary approval are in the process of receiving their full license. However, researchers worry that payment banks will have problems developing a sustainable business model due to the high up-front costs and low-margin nature of the business.[39] In fact, 3 of the 11 approved institutions have already backed out.

Due to the insufficient infrastructure, basic DFS companies in India are faced with either building pieces of the cash-in/cash-out layer themselves by establishing agent networks or integrating into an insufficient system, which limits their customer base. These challenges are time-consuming and expensive, particularly for those companies targeting users outside major cities, where fewer people use mobile money.

The result of the insufficient digital-payments infrastructure in India is that basic DFS companies simply can't reach customers who have not yet entered the digital economy, and there are high up-front costs to change customer behavior. For these low-margin businesses, volume is necessary to build a profitable business case. Investors are therefore hesitant to invest in DFS companies focused on digital payments outside major cities.

### Box 8:
## Impact of India's recent "Demonetization Policy" is still unknown

In November 2016, India instituted a controversial "Demonetization Policy" with the stated dual goals of reducing use of counterfeit currency and black-market transactions and encouraging digital transactions. The government devalued 500- and 1,000-rupee notes, which together represented about 86% of the cash in India.

The long-term impact of this policy is still unclear. Some believe the policy will spring India forward into a digital economy. The resulting surge in both traffic and transactions on e-wallets does support this idea. As of November 2016, Paytm, a mobile-payments platform, recorded 5 million transactions a day (up from an average 2.5 to 3 million previously). One entrepreneur said, "Two years back, the typical thought was that India has been and will continue to be a cash-based economy, but this event has broken those barriers and notions. India could be an economy that is moving rapidly toward digital payments." The increase in digital transactions, however, is driven mostly by urban areas.

On the other side, demand for consumer credit dropped, and retail sales, one of India's fastest growing sectors, dropped off 20% to 90%. Construction, India's second-largest employment sector and main source of new jobs, was particularly affected, not by cash shortages but by limits imposed on withdrawals and overnight borrowing.[40] Overall economic slowdown could threaten the sustainability of the gains made by DFS companies. Goldman Sachs forecasts that GDP growth for the fiscal year will fall from 7.6% in 2016 to 6.8% in 2017.

### Without a robust payments infrastructure, one advanced DFS company, Simpa Networks, had to invest in expensive methods for collecting payments.

Currently, rural India spends $2.5 billion per year on kerosene for lighting - a solution that is as unhealthy as it is expensive. Simpa Networks offers a cleaner-energy solution that is also more cost-effective than kerosene over the long term. Simpa provides asset-based financing for solar systems and energy service on a pay-as-you-go model to energy-poor households and microenterprises in rural India, where 100 million households have either no connection to the electric grid or an inadequate supply of electricity.

In part because of the deficiencies of the cash-in/cash-out network, the customer segment that Simpa serves usually do not have access to bank accounts or mobile-money options. In order to make the payment system customer friendly, Simpa built a team of customer relationship associates who are responsible for collecting the monthly payments from the customers. This enabled the customers who would otherwise not receive loans from banks to be able to get financing from Simpa. With increase in scale, Simpa is looking at options that are more cost-effective than door-to-door collections, including partnerships with local retailers where customers could make the payments.

# B. DFS companies face high costs of customer acquisition

As with most new and disruptive technologies introduced to a market, digital financial services require user adoption and behavior change. Due to mistrust and lack of adoption of key products in the digital economy, such as digital payments and savings, DFS companies (basic and advanced) in India and East Africa face higher costs of customer acquisition that can be an impediment to positive unit economics.

**Box 9:**

### Unit Economics Explained: Costs of Customer Acquisition and Lifetime Value of the Customer

To build a profitable and scalable business, the cost of customer acquisition must eventually be lower than the lifetime value of the customer. DFS companies in India and East Africa face challenges in both decreasing the cost of customer acquisition and increasing the lifetime value of their customers. For example, interest-rate caps, limited consumer-spending capacity, and low customer renewals can all limit this value. This section is focused on challenges that are increasing the costs of customer acquisition. However, DFS companies will also need to experiment with business models to maximize the lifetime value of the customer. As a follow-up to this report, DFS stakeholders should conduct further research on business models that are effectively addressing challenges around increasing the lifetime value of the customer.

## DFS companies must employ expensive tactics to reach and build trust with customers

To build trust with new customer segments, companies often employ sales staff to physically meet with customers. These hybrid "feet on the street" and digital-marketing models are expensive, aren't widely scalable, and can limit growth.

*"The traditional Silicon Valley model of building a product so viral that you don't need a sales force cannot be applied to India... We need more examples, stories, and advisory on how digital fintech businesses can scale using online/offline hybrid models of delivery."*

Indian entrepreneur

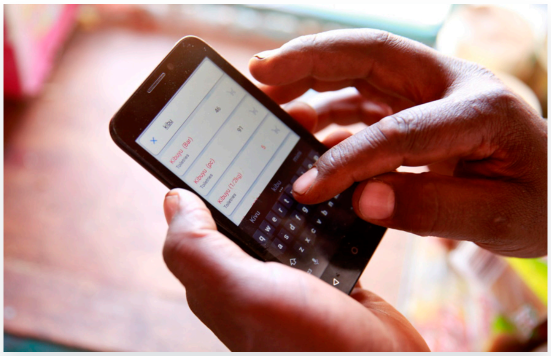
The need for "feet on the street" marketing is higher in India, where there is a weak digital-payments infrastructure. Although the hybrid customer-acquisition model is still used in parts of East Africa, companies there can also leverage mobile-phone technology on a much wider scale to acquire customers.

In India, for example, 70% of online payments are still made using cash-on-delivery.[41] Customers want proof that a product has arrived at their house before they turn over hard-earned money. As a result, many companies also employ assisted-transaction models, whereby a person aids the user making the transaction, helping to overcome literacy and trust barriers.[42] An Ernst & Young report notes that "most mobile financial services and wallet businesses have been built on the assisted transactions model."[43]

> *"For a while you'll have to do both online and offline well, which is expensive and doesn't scale as easily."*
>
> Indian entrepreneur

### Box 10:
## A Strategy for Moving Away From Cash on Delivery: The Case of Alipay[44]

Alibaba, an e-commerce platform based in China, faced similar issues in the nascent digital economy. Consumers didn't trust paying for goods online, and preferred to pay in cash upon delivery. To combat this, Alibaba developed Alipay, which prevents fraud by holding the customer's payment in escrow until they receive their goods. Alipay helped consumers in China gain confidence in e-commerce and incentivized more MSMEs to join the platform.[45] Online-payments companies in India may consider leveraging similar technology. As an example, Alibaba has already invested heavily into India payments company, Paytm,[46] and established a partnership with Alipay.[47]



## Ftcash is trying to find alternatives to the expensive "feet on the street" model of onboarding customers

The number of credit cards continues to grow, from 150 million in 2008 to over 400 million today. Despite the rise in credit-card circulation, most small and micro merchants in India operate on a cash basis, and do not have access to a digital-payments system. This also means that the bookkeeping, such as sales volumes and cash flows, is tracked manually, if at all. Many small businesses are thus unable to access formal credit.

Ftcash is trying to solve this problem by offering small and micro merchants access to lending and digital payments. Ftcash provides a mobile app that allows merchants to accept credit and debit cards, net banking, mobile wallets, UPI, and PayPal. The company then uses the data from those payments to offer loans to small merchants. As of March 2017, Ftcash raised $150,000, had more than 15,000 merchants on its payment platform, and provided around $200,000 in loans to over 100 merchants.

Deepak Kothari, the COO of Ftcash, related that what is most urgent for him is to increase the efficiency and reduce the cost of onboarding new merchants. As new merchants are not familiar with digital payments and need training, Ftcash currently acquires them through sales representatives. However, as Ftcash grows, this model is difficult to scale. "How can we grow 30% to 40% month on month in the most cost-efficient manner? When we started, we were adding 30 merchants a month. Now we are adding 3,000 to 4,000 merchants a month. As we continue to grow, how can we start onboarding ten times that in a capital-efficient manner?" To address this issue, Ftcash is piloting a reseller model, creating incentives for merchants to sell the product in their area.

## 3. Debt Capital Gap

### DFS Companies Struggle to Attract the Debt They Need to Demonstrate Traction

Investors want to see traction before they invest, but DFS companies often need innovative and risk-tolerant capital to demonstrate proof of concept. This is particularly true for digital financial services that need capital to lend as part of their business.

In this section, we focus exclusively on debt capital for alternative lending companies that are providing credit to new customer segments. However, many DFS companies face challenges in obtaining the capital they need to show traction.

Alternative lending companies are developing innovative methods for assessing risk and innovative products to meet customer needs. Yet, many of these alternative lending companies don't have access to the investment capital necessary to lend and demonstrate a low-default, profitable portfolio. Generally, there are a lack of financial institutions and investors willing to provide debt capital for alternative lending. In East Africa and India, banks are very hesitant to lend to untested customer segments or products. Similarly, venture capital investors want to see signs of this early traction before they commit, particularly if investing in a Series B or later-stage funding round.

At scale, alternative lending companies can help to close the credit gap for millions of individuals and MSMEs in India and East Africa. However, without debt capital that allows them to validate their product and increase the volume of customers they can serve, they will struggle to demonstrate profitable business models that give investors confidence.

#### Box 11:
#### Finding Debt Capital in India

Banks, as deposit-taking institutions, tend to be more highly regulated, which can limit their risk appetite. Although banks in India are subject to priority-sector-lending regulation and the CGTMSE [Credit Guarantee Fund Trust for Micro and Small Enterprises] scheme in which their collateral-free loans up to $300,000 are guaranteed by the government, alternative lending companies indicate that they have limited success getting banks to partner and actually provide debt capital. According to one entrepreneur, two key reasons could be: (1) banks follow a branch-based approach to lending, which means that physical loan applications need to be submitted at a branch and alternative lending companies use digital platforms; and (2) banks rely on their own traditional risk-scoring models and have been reluctant to test out new models.

As a result, alternative lending companies usually target non-banking financial companies [NBFIs] or companies [NBFCs]. NBFCs often charge higher interest rates, which can limit the customer segments that alternative lenders serve. Because of India's regulations limiting direct lending to banks or NBFCs, which have to be set up as a domestic entity,[48] it is very difficult for foreign investors to provide debt capital in India, limiting the pool of available debt.

Alternative lending companies struggle most to attract debt capital during two critical phases:

1. **Initial piloting, refining, and validating of their product:** It is most difficult for alternative lending companies, whether B2B or B2C, to attract debt capital during this stage. This seems obvious, as more often than not, the default rates will be high while the DFS company is still testing and refining their product. Although there are a few investors or micro-finance instructions willing to partner and fund such pilots, such as Catalyst Labs, many companies still struggle to find these early partners. Frequently, alternative lending companies fund pilots from existing equity capital, which means they quickly burn through their cash.

> *"Once you prove the concept, it becomes a concept, the problem is in accessing the capital to prove the concept to begin with"*
>
> East African entrepreneur

2. **Launch and early delivery of the product:** After the initial pilot phase, alternative lending companies must continue to find early supporters willing to provide them the debt capital necessary to deliver their product. An investor in India noted that B2B alternative lending companies often need to lend as much as $60 to $70 million from their balance sheets, demonstrating high repayment rates, before banks or other financial institutions will partner with them to provide any additional debt capital. The same investor highlighted that B2C alternative lending companies needed to lend around $10,000 to $20,000 with about a 50% repayment rate to attract additional investors.

> *"Financial-service providers focus too much on profitability and not enough on scale. Startups/innovators focus too much on scale and not enough on profitability."*
>
> Entrepreneur at Village Capital's Scaling Digital Financial Services Summit

Entrepreneurs echoed the need for a "hybrid" investing approach (lend directly first to prove traction, and only then partner with financial institutions). For example, Capital Float, a scaling marketplace MSME lender in India, lends directly from their balance sheet to demonstrate traction and credibility. They continue to employ this strategy when they enter new markets within India to demonstrate the viability of new customer segments. However, many alternative lending companies don't have access to the initial capital to employ this approach.

## FarmDrive establishes a successful partnership with a microfinance institution [MFI] in East Africa

FarmDrive, an agricultural data-analytics company focused on credit scoring for smallholder farmers, launched a partnership with Musoni, an MFI in Kenya, to pilot its credit-scoring model. Rita Kimani, cofounder of FarmDrive, noted the challenge in finding financial institutions willing to partner. "It's not easy to get institutions aligned and to understand that there will be some product loss in the beginning, but a potentially high upside downstream once the algorithm is perfected. We need the default and collection data to improve the algorithm." Musoni was willing to shoulder part of the risk, as it saw the opportunity in the market. FarmDrive also partially funded the pilot with the some of its own equity capital.

## Loans4SME has to rely on NBFCs for debt capital as banks are unwilling to supply capital

As a marketplace lender, **Loans4SME** relies on financial institutions to lend on their platform. "Banks are the big pools of capital, but getting them to actually supply the capital has not been an easy process," notes the founder and CEO of Loans4SME, Simmi Sareen. NBFCs are willing to take on a higher risk than banks, and will lend through the marketplace and with the information obtained from the alternative credit scoring more often. But the cost of capital from NBFCs is higher. "For a similar risk profile, there will be a 2% to 3% difference for the borrower." The increased interest rate prevents low-volume and low-margin businesses from borrowing on the platform, effectively limiting the customer segments benefiting from the marketplace to high-growth MSMEs. Therefore, otherwise-creditworthy borrowers are still unable to obtain credit.

## 4. The “Pattern Recognition” Problem

### Most DFS Companies Don’t Fit What Investors Recognize - or Don’t Know Anyone with Money

Investors often rely on patterns when making an investment decision, but DFS companies in East Africa and India generally don’t follow traditional patterns, which increases investors’ perception of risk.

**Investors rely on patterns as a filtering mechanism.**

Let’s get inside the head of an investor. Because of all the challenges companies face, conducting due diligence for investors working at the early stage in East Africa and India is difficult and expensive. Investors - particularly those looking to invest in East Africa but that don’t have a team on the ground - survey the landscape and see companies operating in nascent industries, innovating with business models that have rarely been tested. They see companies operating in markets that are reluctant to embrace the digital economy, faced with the challenges of changing consumer behavior and building partnerships with large and slow-moving institutions that frequently happen to have a completely different set of priorities.

Meanwhile, these investors are inundated with hundreds of requests each year, very few of which may be great investment opportunities. How do you sort the signal from the noise?

When making complicated decisions but faced with limited information, people save time by creating decision shortcuts. Gerd Gigerenzer of the Max Planck Institute in Berlin calls these rules “fast and frugal” heuristics: we can’t possibly analyze all the information in front of us, so we develop quick techniques to filter it.[49]

So naturally, an investor looking at these markets will rely heavily on filtering mechanisms to find the next big deal.

> *“I’m a busy investor: so how does a Kenyan entrepreneur cut through the noise of other companies that are emailing me cold or through people in my network that have no particular insight into what makes a good or bad company. I need a filter.”*
>
> Fintech investor

The filter often takes the form of looking for patterns that can serve as a proxy for potential. Did the founder attend a prestigious university? Is the company affiliated with highly selective and credible business networks? Was the company recommended by a trusted source in my network? Have other reputable investors invested?

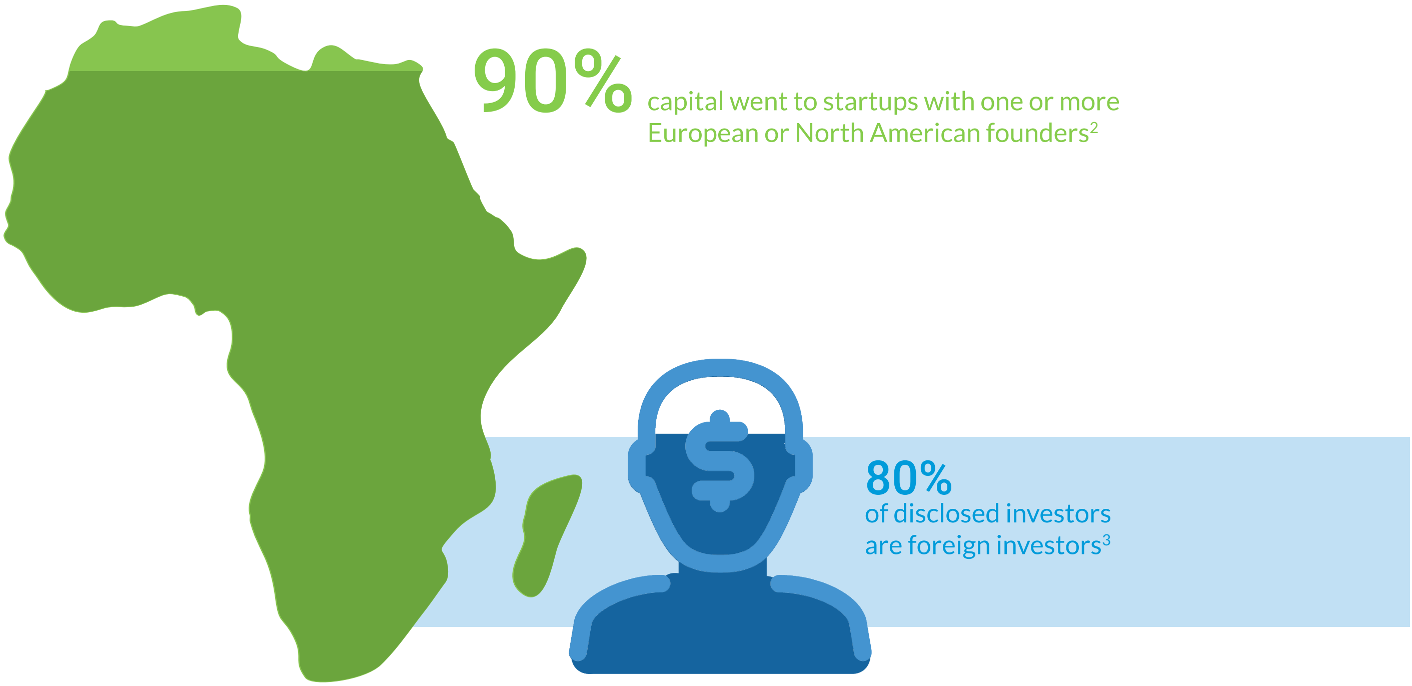
The investor we quoted above said he is most likely to invest in a graduate from Y Combinator [YC] or 500 Startups. Why do San Francisco startup-accelerator programs determine whether a startup will succeed in Africa? “YC is a ‘hard filter,” said the investor, “just as getting into Harvard is a hard filter.”

The unintended consequence of this social-capital-heavy approach, as has been documented by researchers and activists, including Freada Kapor-Klein, is that it **leads to implicit bias in making investment decisions.**[50] In the United States, for example, nearly 80% of investment capital goes to companies in three states,[51] less than 10% goes to women,[52] and less than 5% goes to black or Latino entrepreneurs. These geographies mirror the location and demographic makeup of the investors themselves, and it reflects deep cultural trends in American life.

**Social capital plays heavily into which companies receive investment in East Africa.**

In East Africa, where the majority of early stage investors are foreign, investors tend to rely even more on **in-group bias**. Ninety percent of disclosed investments in 2015 and 2016 went to startups with one or more European or North American founder. Notably, this number doesn't even include many of the U.S.-based DFS startups that raised capital and have a large portion of their operations in East Africa, such as Branch, which raised over $9.2 million in 2016; Tala($10 million in 2015); and First Access, ($1.5 million in 2015).

## IMPLICIT BIAS IN STARTUP INVESTMENTS: EAST AFRICA 2015 - 2016[1]




[1]Investment Data from Disrupt Africa 2015 and 2016 reports. Village Capital team conducted research to determine nationality and pedigree of entrepreneurs.

[2]Note, this number does not reflect outlier investments in Off Grid Electric and M-Kopa, which have European and North American founders. Of the total amount raised in 2015-2016, roughly 10% is undisclosed, and roughly 30% when removing the outliers, which may lower the overall percentage.

[3]Foreign in this circumstance means non-African. We did not include the few investors that were based on South Africa or West Africa as "foreign"

Further, investors **rely heavily on networks** when making investment decisions. According to the same Disrupt Africa report we used to identify investments, 95% of investors surveyed cited their personal networks as one of their sources for investments, and 57% percent noted that networks were their primary or only source for deal flow.

Investors also often **trust each other (the bandwagon effect).** East African entrepreneurs seeking investment will often hear, "We'll invest if you find a lead investor," or, "Who else is in the deal?" The result is that investors vigorously pursue a small number of companies, while many other companies are unable to find financial capital. In 2015, 75% of the funding in Kenya was provided to only two startups (Angaza and M-Kopa), and 98% of the funding in Tanzania went to just one company (Off Grid Electric).[53]

*"All these guys talk to each other, so it's difficult to get more than one term sheet. It's difficult to drive any competition."*

Kenyan entrepreneur

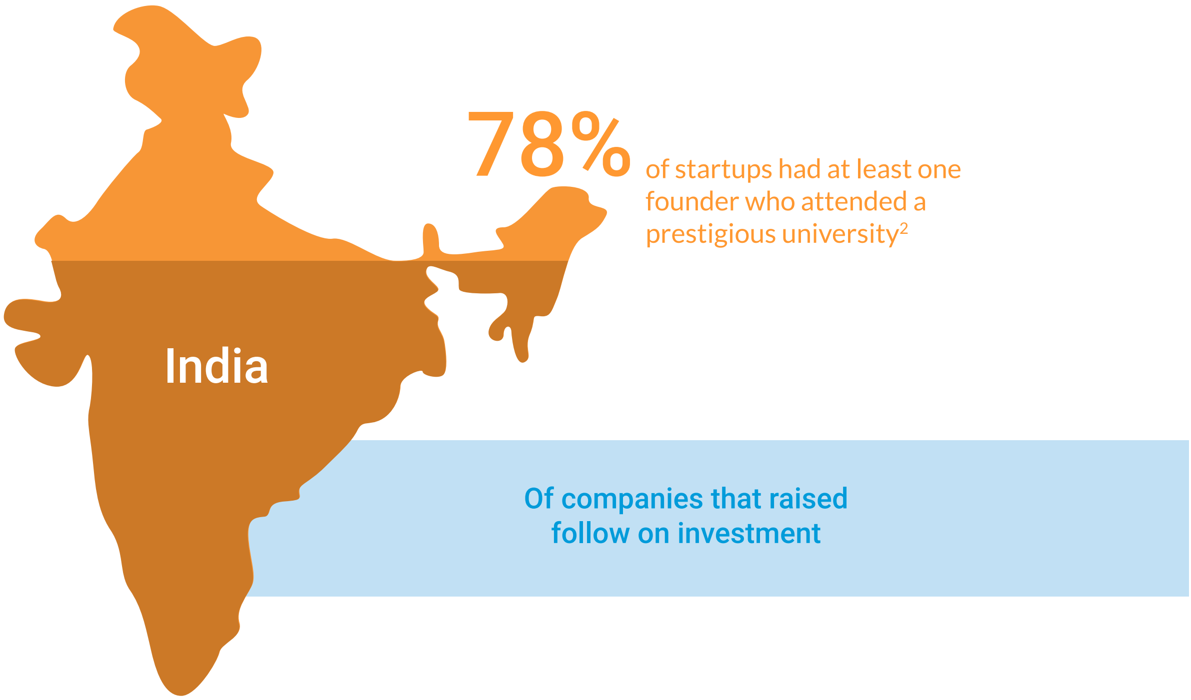
## Box 12:
## Lack of local investors in East Africa

In East Africa, the general lack of local investors also contributes to the way investments are distributed. Many investors report they are hesitant to invest unless there is another local investor in the deal. However, there are few active local investors in East Africa. According to AngelList, there are 33 angel investors residing in Kenya. In India, by contrast, there are 758,[54] and there are more than 22,000 in the United States. High-net-worth individuals in East Africa have traditionally invested in real estate, which is a hard, tangible, and understood asset - as opposed to a new, risky startup. Further, East Africa has too few entrepreneurs who have already exited, who tend to make up the angel communities in markets around the world.

## The impact of social capital on investments is subtler in India

In India, implicit bias is much less pronounced, but still apparent, particularly when looking at companies that were able to raise follow-on investments. Investors are relying on a few prestigious universities, such as Ivy League universities and India's Institute of Technology, as a proxy for potential.

### IMPLICIT BIAS IN STARTUP INVESTMENTS: INDIA 2015 - 2016




[1]Traxcn, obtained March 2017

[2]To calculate this number, we used any one of the following characteristics as proxies: Top tier university (included 2016 Top 25 Engineering Universities in India (ranked by National Bureau of Accreditation), Top Management/Business Schools in India (eduniversal-ranking.com/business-school-university-ranking-in-india.html), 2017 Top 50 Global Universities and 2018 Top 50 US Business Schools (ranked in 2017 according to US News & World Report)

However, attending one of these universities is not in and of itself a predictor of success. Rather, it's the network that students can access as a result that provides additional opportunities.[55] Investors' reliance on these networks leaves behind the many high-potential entrepreneurs who simply don't have the access to attend these few elite universities.

The majority of DFS companies don't have the pedigree or network that investors typically use when evaluating companies in these markets. We by no means believe that startups that have successfully raised investment were not worthy - on the contrary, we want to see more high-potential companies in these markets successfully raise money. Tackling implicit investor bias is part of the solution. Investors are missing out on great opportunities, and businesses that have the potential to improve the financial health of individuals and MSMEs across East Africa and India aren't getting the support they need to scale.

## The relationships FarmDrive developed through entrepreneur-support programs were vital to fundraising success

Peris Bosire and Rita Kimani founded FarmDrive in 2014 after graduating from the University of Nairobi with degrees in computer science. The company was born out of their firsthand experiences growing up in underserved smallholder farming communities. Growing up in rural villages they observed a paradox: even the hardest-working people in their communities were confined to an endemic cycle of poverty. Many of them wanted to be farmers, but they lacked access to small amounts of capital to purchase quality inputs, modern farming equipment such as tractors, and other technologies to increase crop yield.

FarmDrive recently successfully raised investment capital from multiple institutions, including Safaricom's Spark Fund. Prior to the raise, FarmDrive participated in both Unreasonable East Africa and Village Capital's Investment Readiness Programs. Through these programs, Bosire and Kimani developed relationships with strategic partners and investors. Kimani highlighted that the relationships she developed from these programs were vital to the cofounders' fundraising efforts, helping them build their network and credibility with potential investors.

## PART 4:

# BREAKING THE PATTERN: WHAT CAN WE DO TO HELP DFS COMPANIES SUCCEED?

All too often, DFS companies in East Africa and India can't attract the capital they need for scale because investors see them as too risky.

This is bad for everyone: the investors who are missing out on profitable deals; the DFS companies who can't attract the capital they need to grow, and society at large, namely the people and MSMEs that could benefit from innovative and affordable financial products.

In this section we provide a starter list of actions to reduce some of the investment risk and help DFS companies obtain the capital necessary for scale. We first provide ideas to increase the availability of risk-tolerant capital overall. We then provide ideas to mitigate some of the perceived risks that are a result of underlying systemic challenges DFS companies face.

This list of recommendations is not meant to be comprehensive, and we invite entrepreneurs investors, foundations, policy makers, and other ecosystem players to build on this and explore other ideas to help DFS companies improve the financial health of communities in East Africa and India.

## RECOMMENDATIONS TO INCREASE THE AVAILABILITY OF FINANCIAL CAPITAL

We need to move past the "one size fits all" nature of venture capital by developing other tools, and provide ideas to increase the availability of risk-tolerant capital overall to help companies overcome underlying challenges and show traction. In this set of recommendations, we look at ways to facilitate investment activity overall through innovative financing mechanisms.

## Recommendation:
### Develop a Tiered Venture Debt Fund

**Who:** Foundations, development finance institutions (DFIs), and investors
**Region:** East Africa and India

Foundations, DFIs, and investors should collaborate to develop a structured venture debt fund that phases injections of capital into promising early stage ventures to fund business operations. The multiple "tranches" of debt could provide investment structures appropriate for the companies' business models and move entrepreneurs up the risk ladder to acquire equity as the top layer of the fund.

The structure of the fund could be such that philanthropic capital acts as a debt guarantor to de-risk the borrower as a recoverable first loan, and/or provide capital to support the management fees of the fund. A key assumption of this fund should be that the effective annual interest rates are capped at a rate that is affordable to early stage DFS companies, yet profitable for the fund.

This tiered fund could have some or all of the following appropriately priced products:

- Grant capital to fund pilots and proof of concept initiatives by making first-loss guarantees
- Invoice financing to provide companies with upfront capital to finance purchase orders and receivables from low-risk purchasers
- Asset financing for hardware companies to fund unit sales
- Short-term debt for assets with direct correlation to an increase in revenues
- "Vanilla" debt for companies with appropriate internal controls and mature management

# Recommendation:
## Support a Deal Syndicate with First-Loss or Matching-Grant Guarantee

**Who:** Foundations and investors
**Region:** East Africa

DFS companies in East Africa struggle to find investors to lead rounds. Many of the investors active in the region have different investment mandates and frequently want other investors in a deal before they commit capital in order to de-risk the investment. Foreign investors also tend to want local investors to lead the round.

To facilitate investments, investors and foundations could develop deal syndicates that are managed by one or more members of the syndicate. Similar to successful angel network investment syndicates, investors could commit capital to the syndicate in an investment vehicle with agreed-upon terms. Funders should provide a first-loss guarantee and/or provide matching grants to the investment vehicle to catalyze other investors and subsidize management fees. The loss guarantee could honor a default up to a specified percentage of the pool, thereby de-risking their commitment to the syndicate.

Open Capital Advisors launched a similar platform in 2014 with funding from USAID, Blue Haven Initiative, Eleos Foundation, Montpelier Foundation, and Fondazione Opes with the goal of catalyzing $3.5 million in private-sector resources to 15 companies over a two-year period. Investors and funders should examine lessons learned from that initiative to inform the development of this syndicate.

## Recommendation:
### Provide matching grants to de-risk investments

**Who:** Foundations
**Region:** East Africa and India

DFS companies often face challenges in raising enough capital to close investment rounds. Without enough capital, they struggle to have enough runway to make it to their next investment round.

Foundations could provide matching grants or program-related investments [PRIs], up to a specific percentage of the overall round, to catalyze investments into a preapproved list of companies. As an example, the German Investment and Development Corporation [DEG], recently provided a matching grant to encourage investment in a company in East Africa, which helped the company successfully raise a Series A round.

# RECOMMENDATIONS TO MITIGATE RISKS DFS COMPANIES FACE ON THE PATH TO SCALE

We need to address the underlying challenges that are impacting the ability of DFS companies to show traction and build profitable businesses. In this set of recommendations, we suggest opportunities to mitigate these challenges.

## 1. Human Capital: Support Initiatives to Help DFS Companies Obtain the Talent They Need to Grow

### Recommendation:
### Develop an Integrated Talent-Management Network

**Who:** Foundations, investors, entrepreneur-support organizations
**Region:** East Africa and India

DFS companies in India and East Africa face significant challenges in building their teams to have the necessary skills and expertise for growth. Due to the lack of experienced founders and candidates with specialized skills, DFS companies not only need to focus on finding the skills externally, but also must employ tactics to grow their team internally. This will require management, leadership, and other training-skills-based programs and a robust network of mentors.

Foundations, investors, and entrepreneur support organizations could collaborate to develop an integrated talent-management network:

- A diagnostic tool and digital playbook for entrepreneurs to assess their team's strengths and risks to inform the skills and expertise necessary to grow. As an example, Open Capital Advisors is developing a suite of tools for small and growing businesses in order to improve their talent strategy: pre-hire planning, hiring, and post-hire talent management.
- Tools for assessing critical competences of candidates beyond technical skills. Studies have shown, for example, that a CV has poor predictive power of the performance of an employee. Organizations like Shortlist and International Business Leaders are developing solutions to help entrepreneurs implement alternative methods of identifying and acquiring high-quality talent.
- An assessment tool to support prescreening of candidates that will help them understand their core competencies and personalities suited to a specific company role. For example, Shortlist is combining a suite of digital tools to support a more effective recruitment process and provide every candidate with meaningful feedback.
- Curated connection to job seekers, strategic partners, startup-priced service providers, mentors and advisors in ecosystem that could provide fill skills and expertise gaps.
- Validated guides to leadership, management, and technical training courses to build skills for existing teams. For example, the Amani Institute is implementing a new leadership-development initiative to build skills of managers in East Africa.

There are already a number of initiatives underway to build various aspects of a talent management system. The Argidius Foundation recently funded five such initiatives, which could all be brought under the umbrella of one integrated system. Village Capital, in partnership with the other grantees, is building a low-fidelity prototype of this platform.

## Recommendation:
### Provide Subsidized Capital for Strategic Human-Capital Hires

**Who:** Foundations, entrepreneur-support organizations, and corporations
**Region:** East Africa and India

Investors are often hesitant to provide investments into a company until the companies achieve specific milestones, such as making strategic hires or successfully completing a pilot. Oftentimes, those milestones are prohibitively expensive to achieve without investment.

Foundations could partner with investors to subsidize these milestones. As an example, the Shell Foundation has implemented a similar initiative, funding strategic human-capital hires to help companies attract investment.

## Recommendation:
### Develop Programs to Connect World-Class Talent with DFS Companies

**Who:** Investors, foundations, and entrepreneurs
**Region:** East Africa and India

DFS companies in East Africa and India struggle to find or attract the talent they need to grow. Further, they often compete with large consultancies and financial institutions for talent.

Foundations, entrepreneur support organizations, and corporations could partner to develop:

- Fellowship programs to bring in talent to work on a term-limited or project basis within early stage DFS companies.
- Rotation programs that place employees of large consultancies and financial institutions in DFS startups for a specific time period.

Organizations, such as RippleWorks, are already leading efforts to match experts with early stage ventures. As a follow up to this report, foundations, entrepreneur support organizations, and corporations could support similar initiatives, and build new programs to provide DFS startups exposure to various expertise.

## 2. Business Model: Facilitate Partnerships to Improve Access to the Digital-Payments Infrastructure

### Recommendation:
### Facilitate Partnerships with Existing Industry Associations

**Who:** Foundations, entrepreneur-support organizations, mobile-network operators
**Region:** East Africa

Partnerships with financial institutions and mobile-network operators are integral for early stage DFS companies. In East Africa, the dominant partnerships required are with MNOs, while in India the challenge lies in partnering with a fragmented set of distribution channels. In both cases, it is very difficult to get large institutions to agree to partnerships with startups.

Foundations could facilitate these strategic partnerships by working with industry associations to establish “partnership-readiness” programs. The program could have a “pay for success” model in which the funder would provide a recoverable grant to the DFS company to fund operational expenses associated with running pilots or other initiatives with strategic partners. The program could:

- Help de-risk the initial partnership for the institution;
- Identify who in the institution could be a champion for the partnership; and
- Provide “partnership-readiness” support companies to help build their strategy for engaging large institutional partners.

As an example, GSMA has an accelerator to support companies that want to integrate with MNOs, and provides them grants to alleviate some of their capital constraints.

### Recommendation:
### Develop a Fintech-Specific Industry Association to Develop Clear and Consistent Processes Across the Industry

**Who:** Foundations, financial institutions, Reserve Bank of India (RBI)
**Region:** India

Foundations, the RBI, financial institutions, the Internet and Mobile Association of India, and other fintech-ecosystem players in India should collaborate to establish a fintech-specific trade association to represent the interests of financial services and help develop clear and consistent processes across the industry. The fintech trade association should include representation from the RBI, bodies like the National Payments Corporation of India, private banks and other financial services, and support services like IndiaStack.

As a first step in this direction, in March 2017, 60 banks and fintech startups formed a new committee, set up by the Internet and Mobile Association of India, to focus on financial technology and services. In addition to engaging with regulators and the government, the committee intends to increase customer adoption of DFS through:

- Raising consumer awareness about digital-financial services, particularly with a view to explaining benefits as well as usage risks;
- Addressing user concerns by working on processes and standards for information security and privacy; and
- Strengthening integration of payment technologies with typical use-case scenarios, such as online retail.

The next step for this committee could be to develop a formal associations that also focuses on building partnerships among its members. Partnerships between traditional banking models, new-age digital-financial services and support technologies (such as Aadhaar) can help create hybrid online–offline channels for customer access, and will go a long way toward bridging digital-payments infrastructure gaps in India.

## 3.Debt Capital: Increase the Availability of Debt Capital for DFS Companies to Demonstrate Traction and Proof of Concept

### Recommendation:
### Develop an Integrated Talent-Management Network

**Who:** Foundations and investors
**Region:** East Africa and India

DFS companies that offer financing options for borrowers need working capital to support growth. However, DFS companies that are innovating in the lending space often struggle to obtain the working capital they need. The lag time between the time of sale of a product and earning revenue from that sale is too long of a cycle for most startups to handle.

Funders and investors should develop a guarantee fund to catalyze and reduce the interest rates of local venture debt. This fund could provide a first-loss guarantee to local financial institutions that lend to approved DFS borrowers. The financial institutions could securitize the loan through the company's receivables as a type of invoice financing. Umati Capital and Oikocredit are companies that provide this type of financing to MSMEs in the agriculture supply chain and to pay-as-you go asset-based financing companies, respectively.

### Recommendation:
### Establish a Foreign Direct Investor-Owned NBFC to Increase the Amount of Debt Available in India

**Who:** Foundations, DFIs, investors
**Region:** India

DFS companies in India struggle to access the debt capital necessary to provide lending products. Foreign investors are limited in their ability to provide debt capital to Indian companies due to regulatory and operational hurdles.

To increase the availability of debt, foreign foundation, DFIs, and investors could set up an NBFC.[58] There are regulations in India that will allow foreign entities to establish a foreign-owned NBFC as a domestic entity registered with the RBI. These NBFCs could then lend money to DFS companies in the form of domestic loans or non-convertible debentures.

## 4. Pattern Recognition: Support initiatives to overcome pattern-recognition fallbacks

### Recommendation:
### Develop a diagnostic tool to increase transparency and enable connection between investors and entrepreneurs

**Who:** Foundations , entrepreneur support organizations, and investors
**Region:** East Africa and India

Jim Clifton, the CEO of Gallup, a global analytics company known for its polling, often comments that our evaluation tools for athletic potential are relatively sophisticated: regardless of whether you grow up in the favelas of Rio, the slums of Lagos, or the suburbs of London, if you've got the potential to play for Manchester United, you'll get a shot to make the team. Yet we don't have the same way of evaluating entrepreneurs from under-represented backgrounds.

In this report, we've seen how social capital shapes the opportunities that entrepreneurs have in raising capital and building teams. Entrepreneurs who lack networks or branding from prestigious institutions struggle, despite their potential.

We see an opportunity to expand fairer evaluations of entrepreneurs to higher-growth DFS companies. We propose that foundations, investors, and other stakeholders invest in tools to evaluate entrepreneurial potential, building a better pipeline for success. A fairer evaluation framework of an entrepreneur will help investors to find high-potential entrepreneurs without falling prey to implicit bias, and will provide entrepreneurs a clear set of milestones necessary to achieve scale.

A geographic- and sector-specific tool could combine the following to create a comprehensive diagnostic::

- Psychometric evaluation of a company, incorporating team and founder characteristics. Companies like Entrepreneurial Finance Lab and VisualDNA are already using innovative psychometric testing techniques to assess the creditworthiness of MSMEs and individuals.
- Overview of the milestones necessary for each type of DFS company to scale, mapped to the ecosystem of entrepreneur-support organizations and investors' requirements for support. VIRAL is an example of a low-fidelity framework that identifies the milestones necessary for scale, and maps investment stages to a combination of milestones (from the perspective of U.S. investment).
- Assessment of a company's traction to date, mapped to the milestones that provide a path to scale. Investors already often ask a series of questions to ascertain company traction and have internal standards to outline the milestones they want see before making an investment.

The diagnostic tool could provide companies with:

- Real-time feedback on their current stage, strengths and risks from an investor viewpoint, the types of questions an investor would ask, and the specific milestones the company needs to reach in order to give

investors confidence in its investment readiness.
- A “heat map” of the investors and entrepreneur-support organizations in their region that would be a good fit for them, so that founders have access to transparent information on who invests, at what stage, and what risks might prevent them from doing so.

The diagnostic tool could provide investors with:
- A low-touch platform to find high-potential companies that meet their investment theses without resorting to implicit bias and falling prey to pattern recognition; this would save time and yield better investments.
- A common benchmark to articulate to a company why they are seen as too early or too risky, and to discuss the milestones they would like to see before making an investment.

These tools could help entrepreneurs who may not have the right résumé or networks play on a more level playing field with well-resourced entrepreneurs in wealthy markets.

## Recommendation:
### Fund Local Entrepreneur Support Organizations and Investors

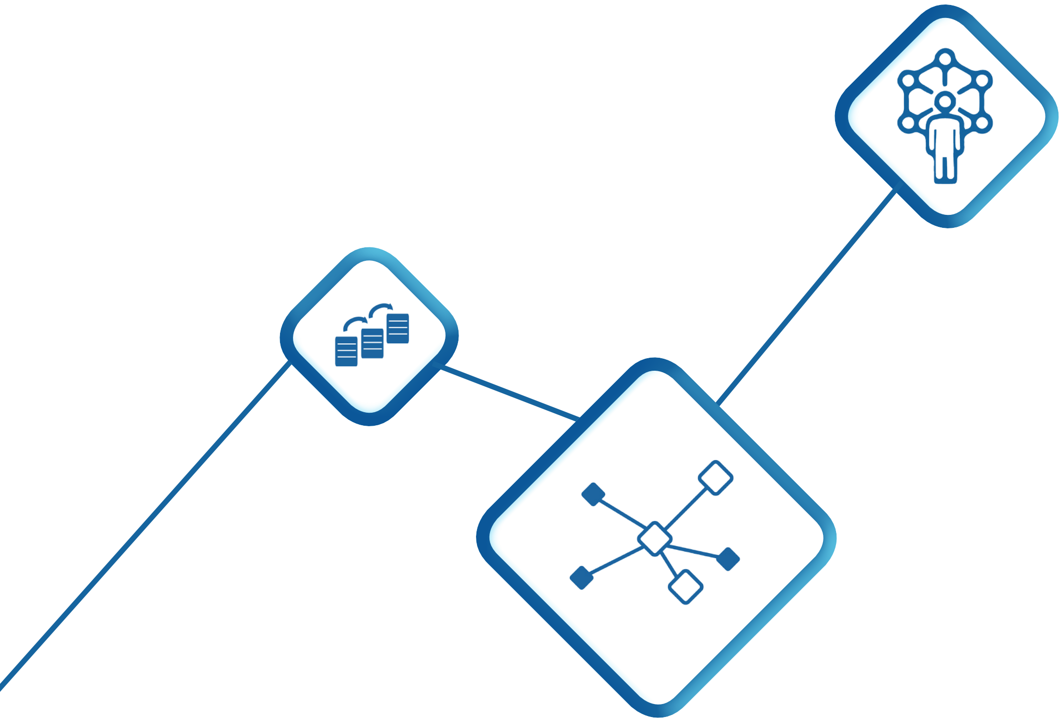
**Who:** Foundations, DFIs, corporations, and investors
**Region:** East Africa

Investors are inundated with requests daily - a typical investor will receive hundreds of investment opportunities each year. As a result, as discussed earlier, some investors rely on intermediaries, such as Y Combinator or 500 Startups, to find companies. However, the majority of companies don’t have access to these Silicon Valley-based intermediaries, and not because they have less potential. We need more high-quality local intermediaries to help investors find great entrepreneurs, and to help entrepreneurs build relationships with investors. We also need more local investors in East Africa that have a deep understanding of the market and can identify and support high potential entrepreneurs.

There are several existing initiatives focused on building up the pool of local intermediaries.
1. Government grants and funding opportunities for early stage seed funds and entrepreneur-support organizations. For example, through the Regional Innovation Strategies Program, the U.S. Department of Commerce’s Economic Development Administration awards funding to early stage entrepreneur-support programs and seed-stage funds to catalyze innovation and investment opportunities across the country. Entrepreneurs are receiving access to networks and opportunities for investment.

2. Aggregated global investor support for local and in-market early stage seeds funds, which in turn will direct more funding to entrepreneurs who likely wouldn’t have access to those global investors. For example, the Capria Accelerator is leveraging global investment capital to support local investment-fund managers. Capria provides first-time fund managers with seed capital, mentoring, and other support to raise investment funds in markets around the world. The objective is to build a pool of early stage investment funds to support local entrepreneurs, providing them with the initial financial and social capital to help them grow.

3. Corporate sponsored and in-house entrepreneur-support programs that focus on supporting local entrepreneurs. For example, the PayPal Incubator in India launched to provide fintech entrepreneurs with a community where they can access the PayPal network and a community of mentors and investors.



# Conclusion

Digital financial services have the potential to improve the financial health of previously individuals and MSMEs in India and East Africa. DFS companies are building on the increased adoption of mobile money and policies that have prioritized financial inclusion to deliver innovative financial products that can meet the needs of those who traditionally have been excluded from the formal financial-services sector.

A few great companies have succeeded in raising the money they need to take a shot at solving some pretty difficult challenges in these markets. But if we are to truly realize the promise of financial inclusion, we need to exponentially increase the number of organizations that are rapidly designing, testing, and delivering at scale DFS innovations that improve people's financial health. There are too many high-potential companies that are struggling to raise the capital they need to prove their models. As we've discussed in this report, companies and investors alike face significant challenges, operating in markets where infrastructure is insufficient, human capital difficult to find, and enormous portions of the population are poor and/or still operate using cash as a primary form of payment.

It is understandable that investors consider these markets risky - but it does not have to be this way. We strongly believe that these challenges are addressable if entrepreneurs, investors, governments, foundations, DFIs, and entrepreneur-support organizations can align and coordinate on taking action to break down some of the challenges. We have laid out some ways we believe this is possible and we look forward to collaborating with others in the ecosystem to build that scale and ultimately improve the financial health and economic resilience of millions of people around the world.

# Appendix 1: VIRAL

**VILLAGE CAPITAL VIRAL PATHWAY** © Village Capital 2017

| Level | Name | Team | Problem and Vision | Value Prop | Product | Market | Business Model | Scale | Exit | Type of funding typically closed at this level |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | Exit in Sight | Team positioned to navigate M&A, IPO. | Global leader in stated vision. | Cited as the top solution in the industry solving this problem. | Product recognized as top in industry. | Clear line-of-sight to industry dominance. | Minimum 2x revenue growth for multiple years. | Strong unit economics for multiple customer segments. | Growth with exit. | Acquirers |
| 8 | Scaling Up | Team is recognized as market leaders in the industry | Systems-Level Change validated. | Multiple renewals with low sales effort. Customers in multiple markets love the product. | Strong customer product feedback in multiple markets. | Brand established. Hard-to-beat partnerships for distribution, marketing, and growth. | MOM revenue meets industry standard. | Growth of customer base accelerates month-on-month. | Team has turned down acquisition offer. | Close Institutional VC for Recurring Revenue + Growth |
| 7 | Hitting Product-Market Fit | C-suite as good or better than founding CEO and can stay with company through its growth and exit phases. | Impact is successfully validated. | Majority of first sales in target market are inbound. | Product is built for scale and additional offerings in progress. | Sales cycles meet or exceed industry standard. | Business model validated - Validation of strong unit economics. | Evidence of strong unit economics across multiple markets. | Team has strong relationships with multiple acquirers. | Close Institutional VC for Recurring Revenue + Growth |
| 6 | Moving Beyond Early Adopters | Team has proven sales, product dev skills, and management ability to support a growing team for scale. | Sales validate impact tied to solution and grow as solution scales. | Sales beyond initial target customers. Customers love it and are referring the product to others. | Complete product with strong user experience feedback. | Supply/distribution partners see their success aligned with the company's success. | Sales begin to map to projections. Evidence of decreasing CAC with growing customer base buying at target price. | Company has cleared regulatory challenges and (if applicable) is implementing a strong IP strategy. | Team has identified specific acquirer(s) or other exit environment. | Close Institutional VC for 1st Sales, Market Expansion |
| 5 | Proving a Profitable Business Model | Team has clear sales/ops understanding and strategy. | Evidence of impact tied to solution-the company has evidence that by growing the business, company solves the problem. | Target customers love the product and want to keep using it. | Fully functional prototype with completion of product for wide commercial distribution in sight. | Team is having conversations with strategic partners to capture their market faster/cheaper than the competition. | Financial model with evidence of valid projections to reach positive unit economics. | Vision and initial evidence of positive unit economics in two markets. | Inbound interest from large strategics. | Close Round with Angel and Early VC |
| 4 | Validating an Investable Market | Team has clear understanding of how their target market operates and has strong industry contacts in this market. | The company can articulate system-level change - how this solution would transform the industry. | Evidence of differentiation through initial target customer feedback that the solution solves their problem significantly better than others in the market. | Team has clear understanding of product development costs and how to build the initial product cost-effectively. | Evidence of $1B+ total addressable market. | Team has financial model with cost and revenue projections articulated and a strategy for hitting these projections. | Initial evidence that multiple types of customers find value in the solution or in an extension of the product that the company is well-positioned to develop. | Evidence of growth trajectory that could lead to IPO, acquisition, or self-liquidating exit. | Friends and Family, BootStrap; Angel/Seed Funding Starts |
| 3 | Solidifying the Value Proposition | Team has technical ability to build fully functional product and has a clear understanding of the value chain and cost structures in their industry. | The company can articulate why they're the best ones to solve this problem. | Evidence that customers will pay the target price. For B2C - 100 customers, for B2B - 5 customers and conversations with multiple stakeholders in each. | Team has built a working prototype and a product roadmap. | Initial evidence through sales that team can capture initial target market. | Team can articulate projected costs along the value chain and target cost points to reach positive unit economics. | Clear strategy to move to multiple markets. | Initial evidence that the solution already solves the problem better than any incumbents. | Friends and Family, BootStrap; Grants for R&D (Hardware) |
| 2 | Setting the Vision | Team has senior members with lived experience of the problem and/or deep understanding of their target customer's problem. | The team can solve the problem and can articulate its vision at scale - what does the world look like if they succeed? | The team has potential customers who provide evidence that solution solves key pain point - product is a painkiller, not vitamin. | Team has a basic low-fidelity prototype that solves the problem. | Team understands any regulatory hurdles to entering the market and has a strategy to overcome them. | Company can point to pricing and business models of similar products in the industry as further evidence that their revenue assumptions hold. | Initial evidence that multiple markets experience this problem. | Vision for growth has company solving a large piece of the global problem in 10 years. | Friends and Family, BootStrap; Grants for R&D (Hardware) |
| 1 | Establishing the Founding Team | Strong founding team - at least 2 people with differentiated skillsets. | Team has identified a specific, important, and large problem. | Team has identified their hypothesis of their target customer - the specific type of person whose problem they are solving. | Team has ability to develop low-fidelity prototype and has freedom to operate - not blocked by other patents. | Team can clearly articulate total addressable market, the percentage they will capture, and initial target market. | Team has identified an outline of revenue model. | Team has identified multiple possible markets or customer segments and has aspiration to scale. | Team understands what an exit is and has a vision for how they will ultimately provide a return for their investors. | Friends and Family, BootStrap |
| | | Team | Problem and Vision | Value Prop | Product | Market | Business Model | Scale | Exit | Type of funding closed at this level |

## Appendix 2:

# Breaking the Pattern:

## A List of Recommendations To Help DFS Companies Succeed

| Action | Who | Region |
|---|---|---|
| **INCREASE AVAILABILITY OF FINANCIAL CAPITAL** | | |
| Develop a tiered venture debt fund to increase the availability of different types of investment capital to support entrepreneurs as they grow | Foundations, DFIs, Investors | East Africa; India |
| Support a deal syndicate with first loss or matching-grant guarantee | Foundations, Investors | East Africa |
| Provide matching grants to de-risk investments | Foundations | East Africa; India |
| **MITIGATE RISKS DFS COMPANIES FACE ON THE PATH TO SCALE** | | |
| **Human Capital:** Support Initiatives to Help DFS Companies Obtain the Talent They Need to Grow | | |
| Develop an integrated talent-management network | Funders, Investors, ESOs | East Africa; India |
| Provide subsidized capital for strategic human-capital hires to de-risk investments | Investors, Foundations | East Africa; India |
| Develop programs to connect world-class talent with DFS companies | Foundations, ESOs, Corporations | East Africa; India |

| Action | Who | Region |
|---|---|---|
| **MITIGATE RISKS DFS COMPANIES FACE ON THE PATH TO SCALE** | | |
| **Business Model:** Facilitate Partnerships to Improve Access to the Digital-Payments Infrastructure | | |
| Facilitate partnerships with existing industry associations to develop programs that will help DFS startups become "partnership ready" | Funders, ESOs, MNOs | East Africa |
| Develop a fintech-specific industry association to represent the interests of financial services and help develop clear and consistent processes across the industry | Foundations, Financial Institutions, Reserve Bank of India (RBI) | India |
| **Debt Capital:** Increase the Availability of Debt Capital for DFS Companies to Demonstrate Traction and Proof of Concept | | |
| Develop a first-loss guarantee fund to catalyze local debt | Foundations, Investors | East Africa; India |
| Establish a foreign direct investor-owned NBFC to increase the amount of debt available in India | Foundations, DFIs, and Investors | India |
| **Pattern Recognition:** Support initiatives to overcome pattern-recognition fallbacks | | |
| Develop a diagnostic tool to increase transparency and enable connection between investors and entrepreneurs | Foundations, ESOs, Investors | East Africa; India |
| Fund local entrepreneur-support organizations and investors that can provide access to networks and credibility to entrepreneurs | Foundations, DFIs, Corporations, Investors | East Africa |

# Endnotes

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Village Capital is a global venture capital firm that discovers, develops, and invests in entrepreneurs solving real-world problems. Since 2009 we have been one of the world's most active early stage investors, investing in over 70 ventures across 15 countries and supporting hundreds more through our collaborative venture development programs. Village Capital graduates have leveraged initial capital 16:1, created over 11,000 jobs, and served over 5 million customers.

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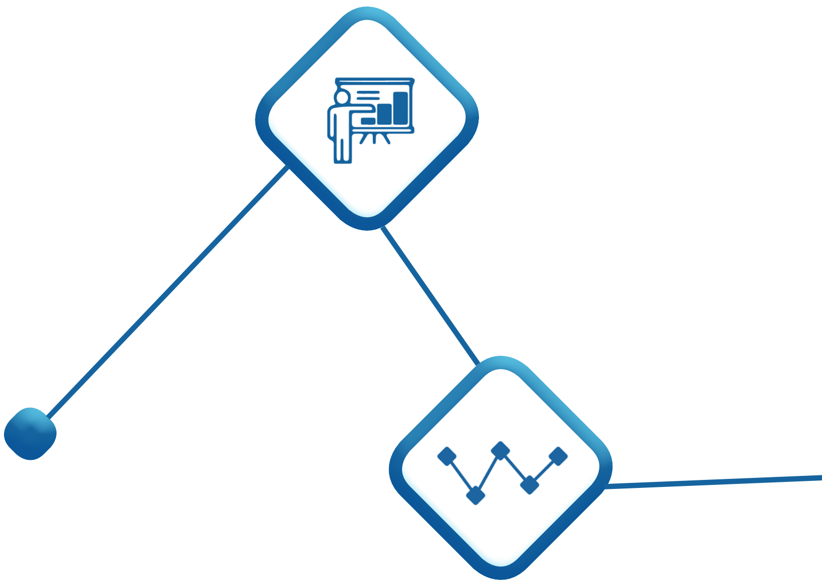

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