

Financial Inclusion in the Digital Age

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*Including list of 100 leading financial technology
companies promoting financial inclusion*

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Disclaimer

The views and opinions expressed in this article are those of the authors and do not reflect the views or opinions of CreditEase, International Finance Corporation, the Stanford Graduate School of Business, or any other organization.

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- Kai Schmitz, Fintech Investment Lead, International Finance Corporation
- Arjan Schütte, Founder and Managing Partner, Core Innovation Capital
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Panel of Judges For Selecting The 100 Leading Companies



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Executive Summary

Billions of adults across the globe lack access to the financial services they need to achieve even modest levels of financial well-being. Many households and small businesses in emerging markets have no or very limited access to formal financial services. Even in developed countries, they only have access to a limited menu of cost-effective products from financial institutions for addressing their financial needs. Over two billion unbanked adults in the world, representing 38 percent of all adults globally, lack access to basic financial services and another 57 percent have basic accounts but do not have access to diversified investment and savings options, low-cost payments systems, core household and business insurance, or credit.

The resulting poor financial wellness—indeed, for many households and small businesses, the resulting financial insecurity—is not just a low-income bottom-of-the-pyramid problem in developing economies. It has been democratized with growing income inequalities in developed economies too, and now is an issue for nearly half the American population.

Achieving financial inclusion and financial security is not an end in itself, but a means to an end. It is broadly recognized as critical to reducing poverty and achieving inclusive economic growth. It also has positive effects on consumption, employment status and income, and on some aspects of physical and mental health. Greater financial inclusion is one of the key priorities of the United Nations' Sustainable Development Goals as it enables households and informal economies to increase resilience and capture economic opportunities.

This report highlights some of the central frictions that prevent greater financial inclusion and financial well-being, and associated technological innovations that are fostering creative new approaches to mitigating these frictions for individuals and small businesses globally.

A financial revolution is taking place around the globe, powered by mobile phones, access to new data, technological innovations and changing mindsets of users of financial services. We are witnessing the emergence of 'for-profit, mission-driven' financial technology (Fintech) players focused on enabling greater financial inclusion. These Fintech companies are mitigating frictions by designing novel products or following innovative business strategies, with the common end goal of enhancing financial inclusion. They are increasing the financial capacities and financial health of households and organizations worldwide.

At the end of this report, we provide a list of 100 Fintech companies globally that are supporting 'Financial Inclusion in the Digital Age' across four main verticals of impact: payments, lending and related ecosystem, savings and financial planning, and insurance. These 100 companies are mission-driven but are also focused on providing attractive risk-adjusted returns to their investors.

Introduction

What Do We Really Mean By “Financial Inclusion?”

Inadequate access to financial services is a problem facing a significant portion of the population across the world. However, the nature of the challenges varies significantly among developed and developing countries, and even between different groups of the population in the same country and region. As Figure 1 shows, only 62 percent of the adults globally have access to basic financial services, defined as having a bank account or a mobile money account. Small enterprises face similar challenges in access to credit that limits their ability to grow and thrive.

What Are The Common Limitations And Frictions?

We see common threads of limitations and frictions across countries at different stages of development and different parts of the population:

1) Access: The availability of financial services can be limited by basic problems with access, for example where they are only distributed through branches that are not available in rural areas. Access can also be restricted by regulation that establishes requirements that parts of the population cannot fulfill. In more established markets, services may be widely available but access is hampered by confusing and complicated terms, limited transparency, and poor usability.

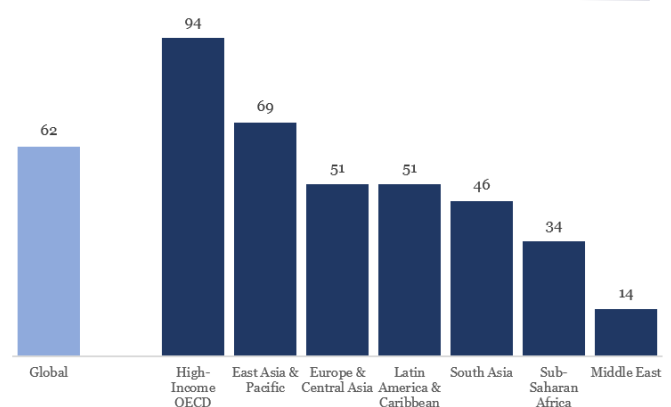
Technology today offers a range of solutions to these problems. We will highlight

examples of how innovative companies have used mobile phones, online marketplaces, comparison sites and big data to solve these problems in different parts of the world.

2) Product Market Fit: Another common problem is that existing and available financial products do not address the needs of large segments of consumer demographics. This can be due to the design of the products or services or the way they are sold, for example where there are requirements such as minimum balances, credit scores or other thresholds that cannot be met by a large number of people. Often pricing becomes a barrier to usage when pricing terms do not accommodate the capabilities of potential users, either because prices are simply too high or because prices are set and charged in a way that is too inflexible to be affordable for them.

The situation is no different for micro-enterprises and small businesses. They need products and services that are appropriate for them but their financial needs are often characterized as high in complexity and low

Figure 1:
% of Adults with Financial Accounts⁽¹⁾



in scale. They have become the Goldilocks of digital banking: corporate solutions are too complex and at too large a scale for them but retail ones are too simple. Small businesses as a result often must resort to using retail products, though their diverse needs call for a more customized service. Banks are often reluctant to serve this segment, absent regulatory pressures or as part of philanthropic ambitions.

3) Affordability: For financial services to be widely available, prices need to be affordable and hence the cost to the providers must be sufficiently low so that the services can be offered at a profit in spite of the limited revenues. If the providers are unable to generate profits, they have no ability or incentive to scale the services.

Unfortunately, offering financial services to small businesses and low-income households tends to have higher cost while often also offering lower revenue streams to the provider.

Technology can help providers to lower their costs along the whole value chain, from distribution to customer service and back-office operations and thereby plays a key role in making financial services more widely available. Examples of such include digital distribution by mobile phones; cheaper customer sourcing and servicing by using Bots, messenger services, and social networks; better fraud prevention and credit assessment using machine learning; and lower back-office costs by automating previously manual processes.

Technology As An Enabler For Financial Inclusion

The innovations outlined in this report highlight different solutions to these three core problems that we will highlight across different verticals. The report does not aim to be complete but rather uses select examples to demonstrate how greater financial inclusion can be achieved by building innovative business models and applying technology to different types of financial services for individual consumers and small businesses.

As we consider these different efforts to expand financial services, we broadly define financial inclusion for consumers as access to cost-effective means of managing their financial lives— spending, borrowing, saving & investing, and protecting their financial well-being through insurance. For businesses, we define financial inclusion as having access to fairly-priced funding and working capital facilities, insurance, and efficient means of managing their revenues and expenses.

All the innovations and companies outlined in this report are pursuing strategies for expanding financial capacity and, as such, are increasing financial inclusion according to this definition. And, importantly, all of these companies are for-profit entities, demonstrating that it is possible to provide services that expand financial capacity while being profitable.

Payments: How Digital Payment Systems Expand Affordable Services & Accounts

The payments industry has historically required high-fixed costs and large upfront investment in infrastructure, resulting in market concentration and high fees. Most traditional payment services are provided by using expensive first and last mile infrastructure such as branches, agents or specialized hardware at the point of sale. Many of the payment services are also run by companies with a large market share that are able to maintain high fees. In Brazil, for example, over 80 percent of electronic payments at retailers are processed by two companies that are owned by the major banks, which have a similar hold on the market for the issuance of electronic payment cards. Credit card transactions through the large networks in the United States cost small merchants 2 to 5 percent of the sale in transaction fees plus charges for the hardware and services and losses from fraud.

Cross-border money transfers also have high costs of origination and payment since they rely on agents and bank branches. The World Bank economists have noted, “to recover such fixed costs, [payments service providers] will often charge a fee which generally has little or no relation to the number and value of payment transactions entered into by account holders.” ⁽²⁾

Additionally, in many markets, much of the population has been precluded from using these services, due to the high cost of establishing the services or other barriers to entry.

The acceptance of electronic payment in most emerging markets is very limited. According to the Global Payment Systems Survey (GPSS) by the World Bank Group in December 2015, an average person in a middle or low income country conducted 22 cashless transactions in 2015, compared to an average of 274 transactions per capita in a high income country.⁽³⁾

Majority Of Payment Transactions In Emerging Markets Are Conducted In Cash

As Shailesh Naik, Founder and CEO of Singapore-based MatchMove Pay puts it, the friction in payments is around “physical cash versus digital cash. [Over] 100 million people are joining the middle class in Asia alone and they’ve been dependent on cash for so long. They are looking for means through which to convert their physical cash into digital cash. Our lives are becoming ever more digital, so our money needs to become digital as well.”

Using mobile phones to facilitate payments has quickly changed these dynamics. Digital payment services offer several benefits including expanding access, driving down costs, and increasing the convenience of transactions.

When the telecom operator Safaricom launched mobile money transfer application M-PESA in Kenya in 2007, it quickly gained traction with urban workers who wanted to send money to their families in their home villages. In Kenya, M-PESA was routinely one-third to one-half as expensive as alternative systems.⁽⁴⁾

As a result, by 2015, nearly 80 percent of Kenyans possessed either a bank or a mobile money account.⁽⁵⁾ In this way, M-PESA drastically expanded financial inclusion.

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***– Shailesh Naik
Founder and CEO
MatchMove Pay***

Similar mobile payment platforms have gained traction in other regions in recent years. Today, bKash in Bangladesh has over 70 percent market share in mobile financial services with over 27 million Bangladeshi adults using a bKash account.⁽⁶⁾

India launched the Unified Payments Interface (UPI) in September 2016, a near real-time payment system facilitating transactions across banks, mobile wallets, merchants and billers on a single mobile application. The UPI platform is seeing explosive growth in transaction volumes.

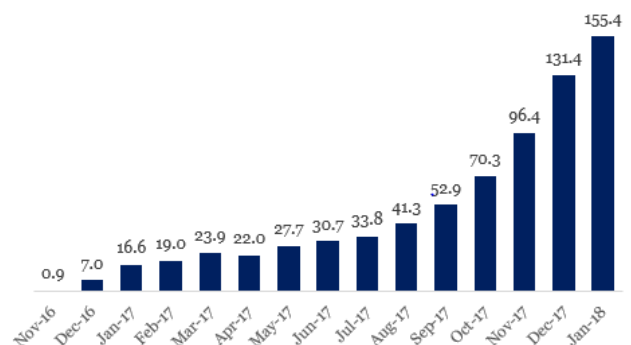
Since mid-2017, UPI monthly transaction numbers have grown 22 times and transaction value has increased seven-fold, facilitating the moves towards reduced cash usage.⁽⁸⁾ The infrastructure has been built by the government and facilitates payments across the country at a negligible cost of less than 1 cent per transaction. Large technology companies such as Google and WhatsApp have launched payment solutions in India in recent months leveraging the UPI platform.

In China, mobile payment volumes have soared from 1.2 trillion yuan (USD 195 billion) in 2013 to 58.8 trillion yuan (USD 8.5 trillion) in 2016, almost 50 times in three years, according to iResearch Consulting Group in China.⁽⁹⁾ AliPay and WeChatPay have accelerated the country's progress towards a cashless and checkless society and hold a combined market share of over 90 percent of such transactions.⁽¹⁰⁾

WeChat has used the large user network it built for its messaging service to introduce a person to person payment method that scaled quickly and due to its proliferation was quickly adopted by merchants. The use of QR codes, also first introduced into the messaging service to connect people, provided a simple and cheap way to provide connectivity between merchants and consumers, eliminating the need for point of sale hardware. The system eliminated various intermediaries that exist in traditional, card-based electronic payment systems, such as issuing and acquiring banks, processors, and providers of point of sale hardware and software, and scaled faster than any other payment service in the world.

After their success with payments, both

Figure 2:
UPI Monthly Transactions
Total Transaction Value (in Rs. Billion)⁽⁷⁾



AliPay and WeChatPay have started to sell other financial services through these channels. These include insurance, lending, credit scoring, mobile wallet and money market funds.

High Distribution & Infrastructure Cost Keeps Cross-Border Money Transfers Costs High

International payments is another area of payments with high friction. Banks use infrastructure mostly suited to large transactions that rely on a chain of correspondent banks and is therefore slow and costly. The most prolific users of money transfers, migrant workers, therefore remit funds through specialized money transfer operators (MTO). These MTOs, however, have traditionally used physical agent networks to collect their payments, which can cost the operators up to half of all the revenues they generate from the service, thereby keeping costs high.

The proliferation of mobile technology is enabling cheaper last-mile electronic connectivity and reducing the need for extensive branch networks, allowing a new generation of online providers to offer services at lower costs and compete against incumbents. Over the past decade, new digital remittance providers such as TransferWise, Xoom (acquired by PayPal), Remitly, and WorldRemit have quickly become successful. These companies can lower the operational cost of money transfer originations from several dollars to often under one dollar. In the process, they have also reinvented the process of the customer identification that is necessary to comply with regulatory requirements (“Know Your

Customer”). By using cameras on mobile phones to take pictures and scan identification documents, and leveraging image analysis, they can identify their customers with likely higher accuracy than a traditional physical process.

As Taavet Hinrikus, CEO and Co-Founder of TransferWise, puts it, “Our mission is to make money without borders. We want international money transfers to be instant, convenient, transparent, and eventually free ... we’re moving bits and bytes around so the marginal cost should approach zero.”

Conclusion

By leveraging the possibilities of electronic transactions, the connectivity of mobile phones, and using technology to turn expensive processes into self-service or automated processes, the new entrants to the payments space have significantly expanded access and reduced costs for all users and managed to include parts of the population that have previously not been able to use such services.

Payments Key Takeaways:

1) Reducing transaction costs is vital to build payment networks that are widely used by all parts of the population

- The proliferation of mobile devices has allowed a new class of payment service providers and solutions that scale much faster than traditional payment services and are offered at much lower transaction costs.
- These payment networks and the data generated from the payment transactions can be used to quickly roll out other financial services, in particular credit.

2) Different customer segments have different financial needs; unbundling of services can allow for better-targeted products

- Financial inclusion is often discussed in terms of expanding access of traditional financial products to the underserved.
- However, the cases of M-PESA, AliPay and WeChatPay highlight that the customers do not necessarily want a formal bank account and simply want a means of conducting payments transactions; unbundling the two allows institutions to serve these customers more effectively.

Lending and Related Ecosystem: How Online Marketplaces & Big Data Make Loans More Accessible For Small Businesses & Consumers

In developing countries, many small businesses and consumers have no access to credit because they cannot fulfill requirements established by banks such as formal financial information, credit bureau history or collateral. Widening access to financing for small businesses is top of almost every government's agenda, given the sector's importance for jobs and economic growth. In the United States, banks are coaxed by regulation, government guarantees and a dedicated government entity, the Small Business Administration, to give loans to small businesses. In the United Kingdom and India, the regulators have issued a new category of less onerous banking licenses to promote lending to enterprises.

High Cost Of Underwriting Keeps Small Loans Unattractive To Traditional Lenders

Banks incur high costs when underwriting loans to small businesses relative to the limited revenues from such loans. Much of the credit assessment of businesses seeking working capital is either done manually by reviewing financial statements or relies on credit bureau scores (to the extent available). Many companies are also required to post

collateral or offer personal guarantees.

Kathryn Petralia, Co-Founder of Kabbage, an online small business lender in the United States, explains, "It's not that banks don't want to lend to small businesses, it's simply hard to do this cost-effectively. The friction for banks is that it costs banks the same to underwrite a \$5 million loan or a \$50,000 loan. There is little profit in serving the latter, and in result, those small businesses are often declined."

Alternative lenders like Kabbage, Funding Circle, CreditEase, FundBox, and Capital Float have strived to automate underwriting and loan management, in the process introducing flexible requirements that are more adjustable to the reality of often informal small businesses. This improved product-market fit results in loans that a traditional bank cannot underwrite profitably and that are attractive for these companies.

Novel underwriting processes translate to better experiences for the borrowers. Historically, small businesses have spent an average of 25 hours on paperwork for three different conventional banks before they obtain a loan or other form of credit.⁽¹¹⁾ By automating this process, these online lenders have significantly reduced the time investment and lowered fees for loan applicants.

Existing Credit Models Are Not Well Designed To Score Those With Limited Credit Histories

Beyond simply lowering the cost associated with lending to small-ticket customers, technology has also been integrated into the credit modeling process, enabling better use of traditional and new data sources to

improve underwriting and expand credit access. Indeed, relying on alternative data, new lenders are underwriting loans to borrowers with no formal credit histories.

Those who have not used credit products from financial institutions are, in most countries, excluded from the formal ratings of credit bureaus. However, most traditional financial services providers rely on credit bureau entries to make lending decisions. Consumers and small businesses without credit bureau entries are therefore unable to obtain loans. In 2015, former Consumer Financial Protection Bureau (CFPB) Director Richard Cordray explained, “A limited credit history can create real barriers for consumers looking to access the credit that is often so essential to meaningful opportunity—to get an education, start a business, or buy a house.” The CFPB estimates that 21 percent of the United States population cannot access formal bank credit channels due to a lack of credit history.

(12)

A notable example of how technology can be used to overcome limitations of available credit bureau data is the possibility to leverage the home-country credit histories for immigrants to the United States and other countries. Nova Credit, a cross-border credit reporting company, is striving to mitigate this friction by providing cross-border credit histories in a standardized format that is compliant with local regulations. As Nicky Goulimis, COO and Co-Founder of Nova Credit explains, “We believe that we are in a unique win-win-win situation: by growing our business, we are able to maximize the users that we serve while unlocking financial opportunity for our

customers and investors.”

New entrants have also developed alternative solutions to assess credit risk. In India, there are nearly 50 million SMEs who have no access to formal credit. CapitalFloat works to bring credit to these SMEs by employing additional data sources in the underwriting process. Gaurav Hinduja, Co-Founder of CapitalFloat, explains, “Predominantly, traditional banks and non-banks have employed a conventional approach to underwriting. They have constantly shied away from utilizing data points from public sources such as social media, and those that are available from the Government in the form of Aadhaar and GST information.”

Konfio, a Fintech lender in Mexico, uses data from electronic invoices and electronic tax filings aided by alternative sources of big data instead of formal financial statements or credit bureau scores to underwrite small business loans.

In China, Ant Financial, a subsidiary of Alibaba, has built Sesame Credit - a proprietary credit scoring system which relies on customer data from Alibaba’s payments services, e-commerce platform, and other products.

In Africa, Branch and Tala have launched mobile apps to offer micro-loans to the financially excluded leveraging their mobile data. Matt Flannery, Co-Founder and CEO of Branch, has extensive experience in the microfinance industry and had previously co-founded Kiva. He sees a collaborative role for banks and Fintech companies and says “Fintechs need banks for the safe storage of money. Banks need Fintechs to take the risk. It’s a symbiotic relationship - for now.”

Using Marketplaces To Increase Transparency And Choice

Several new entrants are combining the benefits of data analytics with transparency and choice that marketplaces can offer. They offer consumers an ability to aggregate their personal financial information and manage their financial health.

GuiaBolso in Brazil offers consumers a free mobile app that allows them to aggregate and analyze their personal financial data and choose financial products that are right for them. It also operates a financial services marketplace that allows comparison shopping for loans and other financial products. This service also helps the lenders by calculating an alternative credit score and by targeting offerings to the relevant borrower profile.

Similarly, MoneyView and BankBazaar in India allow consumers to aggregate their financial and non-financial data from sources such as bank transactions, e-commerce purchases and text messages. This information is then used to offer the most suitable loan products.

Credit Karma in the United States offers a similar market-place platform for consumers to compare products and improve their access to credit.

NAV offers similar services to small businesses in the United States by integrating directly with their accounting system that provides a current view of a company's performance and cash flow situation. NAV uses that information to provide the small business with a business credit score and free tools to protect the business profile. It also runs a marketplace that connects small businesses to several providers of business loans and business credit cards. Consequently,

small businesses are able to access multiple financial services providers without having to apply to each one separately.

Fair is innovating the used car leasing business in the United States. Scott Painter, CEO of Fair, defines the central frictions in the massive used car market as: "Customers have to enter a high-friction combative environment, potentially borrow up to a third of their gross income and endure years of commitment and debt ... and then have a depreciating asset that they have no idea how to sell in the end." The future of car ownership lies in digital, flexible and affordable business models. Fair combines the car selection, purchase, loan, insurance, maintenance and the eventual sale process into a simple monthly subscription model with flexible terms, and all of this is offered via a smartphone app.

Conclusion

A majority of alternative lenders have seen benefits from the better use of existing and new structured data sources using machine learning. The alternative data sources help assess the creditworthiness of those without a formal credit bureau history and enhance fraud checks. Of course, these alternative data systems also raise new issues both in terms of data privacy and disparate impacts in the underwriting process. Moreover, the accuracies of the default assessments of many of these alternative underwriting models have not been thoroughly tested by a downturn in the credit cycle.

Nevertheless, technology-driven alternative lenders and other players in the ecosystem are clearly making strides both by reducing the time and costs associated with the loan applications and by expanding credit access.

Lending and the Related Ecosystem Key Takeaways:

1) Using data analysis and machine learning to better leverage existing and alternative data sources can expand access to the financially excluded

- An array of technology-driven alternative lenders are using machine learning to better use existing structured and unstructured data sources (such as financial history, mobile usage data and e-commerce transaction data) for credit underwriting and fraud detection.
- In many cases, this has allowed them to underwriting customers that were locked out of the traditional bank underwriting models as they did not have a credit bureau score.

2) Different customer segments have different financial needs; technology enables transparency and choice, and supports tailoring of products for different segments

- Marketplaces such as CreditKarma and NAV in the United States, GuiaBolso in Brazil, and BankBazaar in India combine the benefits of data analytics with transparency and choice. They offer consumers an ability to aggregate their personal and business financial information and manage their financial health.
- Serving diverse financial needs of small businesses is expensive for banks and they often end up being offered retail credit products, though their diverse needs call for a more customised service.
- The online alternative lenders are able to leverage technology and additional data sources to build solutions that are efficient and effective at lower scale for small businesses. These include loans, working capital facilities, invoice financing and online supply chain financing.

Savings and Financial Planning: How digital Accounts, Digital Identity & Automation Streamline Financial Management

As consumers consider managing their personal finances through savings and investment products, they also face issues with finding or accessing suitable services, and understanding which services best fit their needs.

High Monetary And Non-Monetary Costs Restrict Account Access

Similar to the payments and credit space, savings products are often characterized by requirements and product features which are disadvantageous for those with small amounts to save. For example, minimum-balance requirements and related fees can discourage consumers from saving through formal channels. Eliminating these fees through subsidies has been found to yield significant improvements in account usage across a variety of markets around the world.⁽¹³⁾

However, often as important are the non-monetary costs. Geographic distance from a branch is strongly correlated with the likelihood a household opening an account with a formal savings institution.⁽¹⁴⁾

Regulatory Hurdles in Opening An Account

Consumers may nominally have access to a formal savings product but regulations may impact their ability to open an account.

Legitimate regulatory concerns, in particular for the prevention of money laundering and terrorist financing, can lead to difficult tradeoffs between the need for identification and accessibility. For example, while regulations vary significantly geographically, KYC regulations in many countries require banking institutions to ask for documentation, such as proof of identity, date of birth, and residential address. In developing countries, many potential savers may lack some of the documentation needed to open an account.

KYC regulations could therefore potentially create incremental costs that make it uneconomical for banks to service small accounts.

Fintech companies have however found alternate methods to ensure appropriate identification and authentication of the account holder. Use of databases that contain personal information, just as credit bureau lookups, or verifying identification and other personal documents and selfies electronically are all used by Fintech companies to offer secure alternatives to physical identification.

Specialized providers exist that offer such solutions to financial service providers, for example, iSignthis and Onfido from the United Kingdom, Jumio from the United States and Trulioo from Canada.

Onfido and Jumio are identity verification startups that are attempting to alleviate the burden associated with authentication of identity documents by matching these documents with government databases and by using biometric data.

Of course, Onfido, Jumio, Trulioo and other technology-driven verification systems rely on customers still having some form of formal government documentation, while as we note above, many of those in developing countries lack even such basic documentation.

Therefore, in promoting financial technology in this sector, there is also clearly a role for government.

Lack Of Legal Identity Documents

In India, before the development of Aadhaar, a government-led 12-digit unique biometric identification program, many individuals lacked the documentation necessary to open an account at a financial institution. And for those living in rural areas, there were limited options for services by financial institutions. Aadhaar was launched in late 2010 as a unique digital identity number linked to demographics and biometrics (fingerprints and iris scans) and has grown rapidly to cover over 1.17 billion Indian residents. It serves as proof of identity and address anywhere in the country, allowing verification of a person's identity in real time, without relying on paper evidence. This has allowed many in India to enter the formal banking system if they choose.

In India, use of Aadhaar has also significantly reduced the KYC cost

associated with account opening. The Indian government launched Prime Minister's Jan Dhana Yojana in August 2014 to coax banks to provide access to financial services to the unbanked using Aadhaar for KYC. Since the launch, over 300 million new bank accounts have been opened. The data shows that more than 56 percent of the enrollees did not previously carry a formal identification, "and 87 percent of those households have an annual income below \$2,000 a year".⁽¹⁵⁾ demonstrating a powerful role the government has played in building a digital infrastructure.

Since the launch of the campaign, the government has been aggressively pressing for direct transfer of benefits to bank accounts through Aadhaar such as subsidies, pensions, and scholarship schemes and mandating various documents to be linked with the number.

In Europe, the Fourth Anti Money Laundering Directive and the Second Payment Services Directive of the EU have formally accepted digital identification into law.

Lack Of Suitable Savings And Wealth Products For Specific Customer Segments

Even if a person has access to the banking sector, many financial institutions and Fintech companies do not yet offer products with terms or features that cater to diverse needs of different customer segments or encourage micro-savings in an automated manner by those with limited disposable income.

By offering significantly increased access and tailored products and reducing pricing complexity, many financial technology firms are attempting to bring more of the financially underserved into the system to promote savings and financial well-being.

For example, Digit and Acorns in the United States have brought solutions to the market that allow consumers to contribute to their savings without consciously making the choice each time. Acorns, for instance, rounds up purchases to the nearest dollar and then contributes this difference automatically to a savings account, effectively investing consumers' spare change.

Digit, in contrast, links to a customer's checking account and analyzes their spending habits. It then automatically develops a view on how much that consumer can afford to save on a regular basis and contributes this amount to a savings account. This allows customers to regularly save without thinking to do so.

Acorns offers consumers the savings product with a simple pricing scheme. Noah Kerner, Acorns CEO explains, "We're transparent about pricing: \$1/month for all customers with a balance under \$5,000, and 0.25% if your balance is over \$5,000."

In wealth management, automated wealth management platforms—"robo-advisors"—have introduced solutions that are tailored to specific customer segments and help reduce the barriers to investing. For example, Ellevest is an investment platform focused on women in the United States. Sallie Krawcheck, Co-Founder and CEO of Ellevest, notes that 71 percent of women's

"The real friction we've found we're overcoming is inertia -- many women are simply not investing and need to get started"

***– Sallie Krawcheck
Co-Founder and CEO
Ellevest***

assets today are held in cash. "The real friction we've found we're overcoming is inertia -- many women are simply not investing and need to get started," says Sallie Krawcheck. By introducing digital advice and automating a significant portion of the investment process, Ellevest reduces the amount of time consumers need to commit to making significant progress toward their investing goals. Ant Financial in China offers a digital money market account called Yu'E'Bao (meaning "leftover treasure"). The product has an easy to use mobile interface and start with a minimum investment amount of 1 yuan. In less than 4 years since the launch of Yu'E'Bao in June 2013, it has become the world's largest money market fund with over USD 165 billion in assets under management from over 300 million users, most under the age of 30.

Customers can transfer their funds between Yu'E'Bao and mobile wallets/bank accounts digitally at any time without a penalty. Merchants and customers using Alipay can now easily park their excess cash in Yu'e Bao to earn an attractive interest that banks were unable to offer. Similarly, WeChatPay offers an integrated wealth-management platform called "Licitong" in 2014 and has

added another product “Linqiantong” in 2017 that also allows users to earn interest from their WeChat balances.⁽¹⁶⁾

Lack Of Financial Awareness And Transparency As A Barrier

Consumers often lack clarity along two dimensions. First, assessing their own financial well-being is complicated by their lack of a comprehensive overview of their financial situation. Second, even with a clear picture of one’s own finances, consumers often lack the requisite information for comparing and assessing qualities of different savings and investment products.

Several new Fintech startups use Personal Financial Management applications and apps to aggregate their users’ financial data and offer them a comprehensive picture of their financial situation. This can be done by aggregating information across financial services providers using tools offered by Yodlee, Plaid, Quovo, and others in the United States.

Companies such as Wealthfront and Ellevest in the United States, GuiaBolso in Brazil, MoneyView in India, Wealth Simple in Canada, and Folio in Japan use this aggregated information to provide financial advice. Many other Fintech companies have emerged as marketplaces that offer solutions for product comparison by consolidating information on characteristics of different loans, credit cards, savings, term deposits and investment products. Companies such as NerdWallet, NAV and CreditKarma in the United States, CompareAsiaGroup in Hong Kong, BankBazaar in India, Raisin in

Germany and GuiaBolso in Brazil, allow such comparisons. However, due to a lack of regulatory permits, these marketplaces are usually limited to offer the financial services available from regulated financial institutions. Often these incumbent financial institutions are slow to adopt the products and services to the need of previously underserved consumers and businesses due to regulation, legacy infrastructure, and internal reasons.

Conclusion

Fintech companies, banks, and governments have in the past years made significant progress in addressing some of the restrictions that previously hampered broader accessibility of deposit and investment products. Digital distribution and onboarding of consumers and small businesses have removed barriers and friction from the process. Marketplaces and data analysis have made a significant contribution to transparency and consumer information. However, the financial products and services offered digitally have not evolved as quickly and are often still the same as they have been for a long time. Creating a better product to market fit will, therefore, take a consolidated effort between banks and other regulated financial institutions, regulators and Fintech and technology companies.

Savings and Financial Planning Key Takeaways:

1) Digital identity and product innovation help streamline the onerous account opening process and support financial well-being

- Use of Aadhar in India has enabled low-cost account opening for hundreds of millions of consumers and provided them with financial access
- Innovative products are supporting micro-savings for users as part of their daily lives and contributing to their financial health

2) Reducing information asymmetries can promote better financial health even without product innovation

- Independent of making any changes to the underlying products themselves, many Fintech companies are assisting consumers by providing them with aggregated centralized information on their own financial health
- By running a digital marketplace that provides consumers access to product comparisons across multiple financial services providers, many Fintech companies are helping consumers to make more informed choices.

Insurance: How Digital Distribution, Marketplaces And Product Comparison Make Insurance More Accessible

Many of the financially excluded live with little means to endure potential economic shocks and are thus subject to disproportionate impact from unexpected emergencies. Simple and affordable insurance products could remove much of this risk but insurance companies have historically had difficulties selling such services. Distribution costs are too high considering the limited income from low premiums of basic small insurance, there are not enough data sources to reliably underwrite the risk, and as a result of this existing insurance products are not designed to be sold to cover small individual risks. Hence, over four billion people globally do not use insurance.

High-Fixed Costs With Limited Distribution

The traditional insurance model envisages insurance buying as a standalone experience through insurance brokers or agents. However, through the use of mobile technology, new entrants have mitigated these barriers. The biggest change is seen in the industry is around 'when and where' the consumers will consider and buy insurance products that are designed for their specific needs. The future of insurance distribution is likely to be 'point of sale' (POS) and

during the flow of experiences and data-driven digital learnings.

BIMA, for example, has introduced insurance products across 15 countries in Asia, Latin America, and Africa by partnering with mobile providers to distribute insurance. BIMA's mobile insurance platform integrates directly with the mobile provider to allow consumers to obtain insurance through their device and subsequently pay for their policy and work through claims as well.

Yet, this technological solution is supplemented by 3,500 human agents that help to educate customers and distribute BIMA products. As Gustaf Agartson, CEO of BIMA, explains that "since more than 75% of our customers are buying insurance for the first time there is a great need for education around the concept of insurance as well as specifics related to the product. We therefore strongly believe in the combination of digitalized processes together with a human touch from our 3,500 sales people around the world."

Coverfox, an online insurance broker in India, also deploys a dual approach of direct to consumer business as well as the digital agent business whereby offline agents use the agent management app to better reach and serve consumers.

These new generations of online brokers and marketplaces are however dependent on insurance companies being ready to distribute and sell insurance electronically. Unfortunately, processes at insurers are in some cases not suitable for digital distribution and as a result significant friction often still exists.

Information Asymmetry And Lack of Financial Awareness

Even for those who have access to insurance, the product landscape has often been daunting and difficult to evaluate. In particular in emerging markets, the benefits of insurance are often not well understood and consumers are reluctant to trust insurance companies. To assist in overcoming this barrier, a number of digital platforms have emerged to offer consumers more clarity around products offerings and comparison.

CoverHound, for instance, allows both businesses and individuals to compare insurance offerings across different carriers through an online marketplace; as Keith Moore, CoverHound Founder & CEO explains, “Think of it like Amazon for your home, auto, and business insurance.” The company aspires to be “their trusted advisor in the insurance space by providing curated choice and being obsessed about great customer service.”

Similar platforms have emerged in other geographies as well: PolicyBazaar, in India, offers an aggregation and comparison platform to help consumers evaluate different insurance products.

Importantly, economically well-off consumers have historically received this type of curated experience through their insurance brokers. However, before CoverHound, Coverfox, CoverWallet, and others had the ability to offer insurance products digitally, brokers could not economically offer customized coverage to customers that were looking for small policies.

By giving individuals and small businesses

the ability to better assess the products they are purchasing, CoverHound, HealthSherpa, ForUsAll, PolicyBazaar, BIMA and other insurance technology solutions are allowing consumers to better protect themselves with the appropriate insurance.

Lack Of Single Platform For Multiple Insurance Needs

Several companies have launched platforms that have become a single window for multiple insurance needs of their users. For example, small businesses in the United States may need to buy professional liability insurance, property insurance, workers' compensation insurance, product liability insurance, vehicle insurance, business interruption insurance or other product depending on their business profile. In the past, they have often purchased these policies through different providers. Next Insurance offers packages tailored online for different professions such as general contractors, painters, handymen, photographers, personal trainers and house cleaning services.

“We are solving that problem by building the last mile to coverage — the tools, technology, and outreach needed to ensure that everyone who wants coverage can access it and understand how to make the most of it for both their health and financial well-being”

**– George Kalogeropoulos
Co-Founder and CEO
HealthSherpa**

Changing Consumer Needs And Introduction Of New Products

Some of these platforms have also emerged in response to legislative changes. For example, after the passage of the Affordable Care Act in the United States, HealthSherpa came to market in the United States to help consumers navigate the complicated healthcare market. George Kalogeropoulos, HealthSherpa's CEO, explains, "The Affordable Care Act created the legal and regulatory framework for expanding access to the individual population not eligible for other sources of coverage but did not create an adequate, sustainable operational framework for distribution of this coverage."

In response to this labyrinth of new regulations, HealthSherpa developed a solution that allowed individuals to assess the different healthcare coverage options and determine what is right for them: "We are solving that problem by building the last mile to coverage — the tools, technology, and outreach needed to ensure that everyone who wants coverage can access it and understand how to make the most of for both their health and financial well-being."

Technology has also enabled the introduction of innovative solutions that were not possible in the past. The Internet of Things (IoT), especially sensors and cameras, is transforming insurance for automobiles, homeowners, commercial property and general liability. Data generated from various connected devices, ranging from cars to personal devices and satellites, aid the underwriting and product design of insurance products with great benefits for previously uninsured users. WorldCover in

Ghana is using satellite images, to offer and price crop insurance. Companies such as Metromile in the United States and Friday in Berlin offer Usage Based Insurance (UBI) for automobiles based on how much you drive. The tracking is done using telematics and a small device that is plugged into the car's on-board diagnostic port or through a smartphone app. Trov in the U.S. offers on-demand insurance for electronics, sports equipment and other things cherished by their users. Environmental sensors are increasingly being used in homes, office buildings, warehouses, and factories to detect temperature, fire, smoke, motion, light conditions etc. These devices enhance control by providing predictive alerts.

Conclusion

Digital distribution combined with big data, data analytics and machine learning has begun to transform the insurance industry. Insurance can be sold at a fraction of the cost of sales through physical brokers. The Internet of Things allows insurance companies to track the use of insured goods and offer insurance policies that are much more tailored and priced to actual usage and risk. Consumers benefit from more transparent terms and pricing, and benefit from responsible usage. By linking insurance to sensors, consumers are forced to install risk-reducing devices that have the potential to prevent losses and damages and thereby reduce costs to all users.

Insurance Key Takeaways:

1) Technology can replace traditional broker networks or can be used to complement the traditional distribution channels to deliver products tailored for the financially excluded

- Availability of insurance products through mobile apps and through partnerships with mobile carriers has enabled distribution of micro-insurance products in remote areas. In other cases, technology companies are using technology to automate the process for insurance brokers or running insurance marketplaces to provide easier product comparison and fulfilment.

2) Technology enables design and delivery of new products tailored for the customer segments depending on their needs

- Specialized insurance products have been developed for insuring automobiles, electronics, agricultural crops and other products using technology, and thereby enhancing consumer access for their unique insurance needs
- Specialized pools of risk and predictive modeling are resulting in

Conclusion

As we have outlined, many Fintech companies are making significant progress in promoting financial inclusion through new business models and novel products.

In addition to these innovations, we see increased use of technological developments such as digital identity, biometrics, Internet of Things, Artificial Intelligence and Machine Learning that we believe can further financial inclusion.

Advanced data analytics and use of machine learning have clear applications for both the lending ecosystem and insurance, in fraud detection and prevention, and for better credit assessment. This presents an opportunity for individuals who have historically been locked out due to a lack of formal credit history or customer segments who are better credit risks than traditional underwriting models would assess.

Similarly, in insurance, machine learning can be used to supplement the traditional underwriting process and enhance controls.

The global financial system is poised for unprecedented innovation. But technological progress alone cannot fuel financial inclusion and it cannot be achieved through the effort of one party alone.

To sustain the efforts of the growing private sector and to extend the reach to the wider target group, it takes concerted efforts from multiple players: entrepreneurs, regulators, investors, policymakers, large incumbents, and consumers.

The concept of “Financial Inclusion” is not a new concept. It has been the topic of many governments and regulators for years. As Noah Kerner, CEO of Acorns puts it, “let’s be creative and thoughtful on behalf of the people trusting us with their financial futures, and we’ll all do well by doing good.” It is therefore up to us in how we drive the next step forward.

We hope the examples of innovations and companies we outline in this report will mark a promising start in that journey.

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Company Interviews

What inspired you to start your business?

I'm a big believer in ideas that people can sink their teeth into - ideas that solve a problem with an easy solution. The question Acorns set out to solve five years ago was, "Why can't everyone invest?" We started by making it possible for anyone to effortlessly invest spare change.

Our mission is deeply personal to me. I grew up in a middle-class family in the East Village of New York City. My parents invested — but like a lot of people, they started late, reacted to downturns and ended up losing a lot as a result. I saw the angst that caused.

I also saw the value of hard work and grit. I've seen people come from nothing and grow. That inspired me to believe that anything is possible. When I was introduced to Acorns two months after launch, I was immediately moved to get involved. Acorns was going to solve an enormous problem with an easy solution, and as a result, hard-working people were going to have a financial advocate. The potential for us to help is limitless. Who wouldn't want to be a part of that?

Who is your target user base & what is your mission for this group?

Our mission to look after the financial best interests of the up-and-coming, beginning with the empowering step of micro-investing. By 'up-and-coming,' we mean anyone working hard today, striving for a better future. Geographically, our more than 2.9 million customers are distributed relatively evenly across the country. Many are first-time investors, and 90% have a household income under \$100,000. While 50% of our customers are between 24-35 years old, and 25% are between 36-50, our investors range in age from 18-98.

We hope that by investing with Acorns, people realize that where you start doesn't determine where you're going. Almost everyone who made it started from humble beginnings.



Noah Kerner
CEO
Acorns

What is the central "friction" that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

More than half of Americans aren't investing in their futures, and 66% aren't saving. In fact, the majority of Americans don't have \$1,000 in emergency savings. At the same time, more than 60% of Americans are battling financial anxiety. By shifting the complexities of investing from the customer to us, lowering the financial barrier and educating people, we're helping millions of Americans invest in their futures in the background of life — pennies at a time.

For example, our customers investing spare change through Round-Ups set aside \$32 a month on average, just by spending normally. Recurring and One-Time Investments allow people to invest additional money regularly, or when they have some extra cash. Our Found Money feature connects our customers with 150+ brands like Airbnb, Zappos, WalMart and Nike, that invest in them automatically when they shop. And it's really important that we help people grow their knowledge and financial confidence. Grow, our money magazine, saw over 5 million visits last

year. With digestible, relevant content, we want to empower the 66% of Americans who don't feel they could pass a financial literacy test.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

That balance is actually essential to our business model. People choose Acorns because we'll continue to choose them over a faster or easier path to profitability, and our investors support us. Honestly, we could have made money quicker in those early days, but it would have compromised our mission and values — and likely cost us customers over time. Considering our growth rate, being mission-driven is working.

We've opened more than 2.9 million investment accounts — more than 1 million last year alone, and more than 250,000 last month.

As for the specifics — we're transparent about pricing: \$1/month for all customers with a balance under \$5,000, and 0.25% if your balance is \$5,000+. We're free for college students. So for \$1/month, you get all of our automatic investing features, automatic portfolio rebalancing, automatic reinvested dividends, constant technology upgrades, 24-hour support, in-app access to Grow and more. And it's easy to offset that cost with a few referrals, or Found Money rewards. Any new developments or revenue streams are filtered through our mission: "Will this help us look after the financial best interests of the up-and-coming?" So far, that process is only boosting our potential.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

Our biggest friction is a lack of education around best investing principles — namely, what to do when the market drops. Every market downturn has ended in an upturn — every single one. Think about the trillions of dollars people have lost by pulling out of the markets at the wrong times.

Think about what those trillions could be today if they'd been left to recover and grow. It keeps me up at night. These decisions are made out of anxiety or lack of knowledge — that's on this industry to fix. If we're relentless in our commitment to educate, we can.

One of the huge benefits of Acorns and our Grow effort is that we're educating at the point of decision making. And we are reminding and reminding and reminding. We have this huge opportunity to instill the best principles of investing to tens of millions of people at the moment of decision making. This will change lives.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

I can't say much today, but collaborations like these are helping us evolve. We always imagined our relationship with people would begin with micro-investing, but to help anyone grow wealth, we're excited to extend it.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

Great question but I can't step away from our mission. From my perspective, many of the great breakthroughs in finance will start with integrity. Right now, for instance, the banks in America charge up to 22 different types of checking account fees — most of them in fine print. That's not okay. That's not helping people take care of their money. There are plenty of ways to be profitable without making money off of people's mistakes. Let's be creative and thoughtful on behalf of the people trusting us with their financial futures, and we'll all do well by doing good.



What inspired you to start your business?

We founded BIMA since we had identified an enormous opportunity in leveraging mobile technology to provide affordable insurance to people in emerging markets. More than 4 billion people around the world do not have insurance today but have a great need for financial protection because of the risk they are facing. Majority of these people have a mobile which creates an opportunity to leverage mobile technology to offer them insurance.

Who is your target user base & what is your mission for this group?

The purpose of BIMA is to protect the future of every family. Our target base is the mass market meaning that we develop products that are affordable also for low and mid income segments. The traditional insurance industry primarily focus on targeting the high income segment only but we are different.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

What is distinctive about our strategy is that we combine people with technology. All our processes are digitalized, including customer registration, payments and claims administration. However, since more than 75% of our customers are buying insurance for the first time there is a great need for education around the concept of insurance as well as specifics related to the product. We therefore strongly believe in the combination of digitalized processes together with a human touch from our 3,500 sales people around the world.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?



Gustaf Agartson
CEO
BIMA

Our shareholders have a long term view of their investment in BIMA. Therefore, the management team and shareholders are fully aligned that we need to deliver good value for customers in order for us to build a loyal customer base and be successful long term.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

We strongly believe in the importance of engaging customers on a regular basis and continuously deliver value to our customers in order to build loyalty. This can be challenging for any provider of insurance products since customers might perceive limited value unless they submit a claim. We therefore aim to bundle our insurance products with other health services, such as access to doctors over phone/video, so that customers can benefit from BIMA's products and services continuously. Getting the product portfolio right and make sure we offer the right mix of products and services that are affordable to, and valuable for, our customers is absolute key.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

We are keen to partner with large scale financial institutions to offer our products to their customers

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

We believe further growth of wallets is required. The solutions are there in most markets but the usage is low. Even if money is sent between individuals we still see limited activities in terms of savings and bill payments. When people actually replace cash with wallet transactions, then the penetration of other financial services like insurance will accelerate.

What inspired you to start your business?

The mission of Branch is to "deliver world-class financial services to the mobile generation." We are starting in Sub-Saharan Africa. Our first product is credit, but we will offer other services in the future: savings, money transfer and payments. Our clients are mainly small business owners, but we also provide consumer credit. In just three years, we have served ~1m clients!

Who is your target user base & what is your mission for this group?

I've been working in Microfinance -- specifically in Africa -- my whole career. Over the past decade, I witnessed the rapid spread in technology (phones, internet, payments) in the region. Microfinance has been rather slow to adopt these tools! Thus, it's still a rather slow and inconvenient experience for clients around the globe.

After years of trying to change MFIs (microfinance institutions) the outside, I decided to start one myself to see if I could change the industry from within.

What is the central "friction" that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

After running a nonprofit for ten years, this is my first experience with investors. So far so good. Our clients want fast and convenient credit. The more clients we serve, the more capital we can raise. It's been a virtuous cycle.

We've just got to make sure we are finding investors with a long term view that believe in the promise of this space. We need to avoid investors fixated on short-term metrics!



Matt Flannery
Co-Founder and CEO
Branch

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

Regulations around the world don't really capture what we do. They primarily pertain to financial institutions with branches. So you have to find a way to fit into these clunky frameworks.

It's been interesting to travel around the world -- in places like India and Indonesia -- to meet with regulators and apply for all these licenses. Regulators have a mandate to innovate and they see Fintech as a way to make massive leaps in financial access. Things are changing for the better...

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

Fintechs need banks for the safe storage of money. Banks need Fintechs to take the risk. It's a symbiotic relationship -- for now.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

Regulators shouldn't fight the fast spread of Fintech lenders like Branch. Rather, they should enforce 1) the adoption of credit bureaus 2) the transparency of pricing and 3) fair collections practices.

What inspired you to start your business?

The fact that India had more than 50 million SMEs with no access to formal credit who, despite contributing 15% to the country's GDP and 40% to employment, had an unmet credit demand of \$400 billion. Traditional lenders are limited by the constraints of their conventional underwriting that restrict financing due to the volatility of this sector. This, pushed SMEs to the informal sector where the high interest rates charged by moneylenders fettered borrowers to a chronic cycle of debt. Capital Float was started with the objective to bridge this market gap with innovative and flexible credit products for SMEs, delivered in an efficient and customer-friendly manner.

Who is your target user base & what is your mission for this group?

We aim to service high potential, under-served, SMEs. Our mission is to provide a seamless borrowing experience using customized finance products that cater to the specific needs of different SME segments. Technology plays a crucial role in reducing turnaround times, implementing paperless processes and pioneering predictive lending.

We drive our products & processes to realize financial inclusion. A recent example is the introduction of Proprietor Loans for micro-entrepreneurs in India, who face challenges in obtaining loans from traditional lenders due to a lack of formal credit history and collateral. Capital Float is the first company in India to introduce a product that finances this segment.

We designed the Proprietor Loan app in collaboration with IndiaStack. The app enables small retail store owners to apply for a loan without having to leave their store. The applicant has to merely provide their AADHAAR number to apply. The app fetches the relevant data using the number and underwrites the customer in real time. We then disburse funds within minutes of the application. We achieve scale by partnering



Gaurav Hinduja
Co-Founder and Managing Director
Capital Float

with ecosystem leaders, such as PayTM, Amazon Business, Payworld, etc. and serving storeowners operating on these platforms.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

Traditional banks and non-banks employed a conventional approach to underwriting and have constantly shied away from using data points from public sources. Capital Float has designed its credit underwriting with the fundamental understanding that every SME is different. Leveraging data points from partners in each industry sector along with conventional data, our underwriting engine processes loan applications and disburses funds in real time.

We lead a partner-driven approach. We have partnered with ecosystems across various verticals such as e-commerce, retailers, PoS payment enablers. Through this, we are able to maintain a low OPEX and cater to a wide range of SMEs without increasing our sales headcount.

We have the widest portfolio of working capital finance products from Merchant Cash Advance

and Supply Chain Finance to Unsecured Business and Proprietor Finance. We also designed a unique credit solution called 'Pay Later' where borrowers can make multiple drawdowns from a predefined credit capacity and interest is charged only on the utilized amount.

A collaboration of partnerships with industry leaders and niche products ensure that we can expand our outreach to a majority of our target base and enhance their financial capacity.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

The SME sector in India is restricted by technical as well as functional limitations. Most SMEs simply cannot afford to expend time for the lengthy processes and immense documentation requirements. Presenting sufficient collateral is another barrier that most SMEs can't overcome. Capital Float has a completely digital loan application process that eliminates the need for borrowers to be physically present to apply for a loan. The use of unconventional data reduces the need for a multitude of documentation for credit underwriting. All our SME credit products are also unsecured, which facilitates easy access to finance for a previously ineligible SMEs.

Customer satisfaction is immensely significant to us, which drives our efforts to offer the best-in-class user experience to our borrowers. This is made possible through continuous innovation that enables us to adapt quickly to the ever-increasing demands of our core target base. We are also willing to venture into unexplored SME avenues that face a significant credit deficit. Our constant innovation to reach out to new audience ensures that we never fall short in fulfilling the financial expectations and reinforcing the continual faith of our investors.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

We view traditional banks and non-banks as

collaborators, not competitors. Capital Float operates India's largest digital co-lending model, wherein we co-lend with banks, NBFCs and others. Loans are presented on the platform and offered on a first-come- first serve basis. We co-lend up to 30% of each loan to ensure that we have our skin-in- the-game and risks are mitigated. This model works emphatically well, as participating entities are able to leverage the strengths of the other. Banks and large NBFCs possess immense balance sheets, which when made available on the platform lowers our cost of capital. Meanwhile, banks are able to meet their priority sector lending targets by lending to SMEs via the platform. Our data-driven assessment and speed of processes, backed by a robust digital infrastructure significantly lowers the cost of acquisition for participating entities.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

Digital lending companies have evolved as disruptors in traditional financial markets. To sustain the efforts of this upcoming sector and extend their outreach to the majority of their target group, opening public sources of funding is necessity that requires government intervention. In India, public funding initiatives such as MUDRA and SIDBI refines institutions that lend to MSMEs, but within regulations of their own. Refinancing support thus fails to cover the high operating cost of the small-ticket, short duration unsecured loans that are provided by Fintech lending institutions.

Creating a sustainable digital infrastructure that facilitates easy transfer and recovery of finance offered by Fintech lenders is thus needed. This, implemented via eNACH, will help the digital ecosystem in achieving faster adoption.

What inspired you to start your business?

CoverHound was founded to bring transparency, curated choice and the most modern digital shopping experience to P&C Insurance. Think of it like Amazon for your home, auto, and business insurance. We are obsessed about being “Fast, Accurate & Actionable”. Digital shoppers’ expectations have long surpassed the online capabilities of most leading insurers’ platforms.

18 years ago, I developed the first online instant homeowners insurance quote to purchase for a US insurance carrier, simply by entering a home address. Insurance startups today behave as though this is something new. Some time later, I led the largest financial services Exchange/Marketplace in the U.S. at LendingTree. I understood the power of yield management and accurate ‘curated choice’ when it came to complex financial product comparisons. Today, CoverHound is the combination of those valued experiences and data-driven digital learnings.

With today’s far more advanced technologies, CoverHound & CyberPolicy delivers amazing online experiences without the heavy tech requirements that large insurance companies historically require for their products. This allows us to meet our insurers more than halfway and enable rapid speed to market with consistent end-to-end online fulfillment. Insurance distribution innovation starts with insurance product innovation. This is critical; it helps us change how consumers & businesses compare and purchase insurance online. CoverHound is pioneering a new approach to insurance product development by leveraging new data and the immediate access to more relevant data to our insureds.

Who is your target user base & what is your mission for this group?

Our target audiences are digitally savvy individuals looking for a smarter, more transparent, insurance buying experience - whether they’re looking for home, auto, cyber or commercial insurance. Our



Keith Moore
Founder and CEO
CoverHound

mission is to always be their trusted advisor in the insurance space by providing curated choice and being obsessed about great customer service.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

I believe there are two major friction points the insurance industry must address. The two points set the strong foundational reasons why CoverHound & CyberPolicy will succeed.

First, and the biggest change and friction coming to insurance, is on ‘when and where consumers will consider and buy insurance designed specifically for them and their immediate situation.’ I strongly believe more non-insurance carrier brands will be responsible for the delivery and distribution of insurance at ‘point of sale’ (POS) and during the flow of normal commerce when insurance is a very relevant requirement e.g. buying a home/a car, setting up a business, getting a commercial loan. The underwriting data available during this process is far more accurate and convenient for any insurance shopper. This is why CoverHound was built: to deliver customizable and curated insurance comparisons and purchases via trusted

brands. This is where the future of insurance distribution is truly headed.

The second biggest friction point will be meeting and exceeding digital customers expectations when it comes to buying insurance and having the improved levels of fast, curated choice across multiple products and multiple providers, as they do with any other digital purchases today. Providing too many choices or irrelevant choices leads to a negative consumer experience, which what we and our partners strive to avoid.

That's why CoverHound is built for these branded partnership integrations to deliver the right insurance products, from the right insurance carriers, at the right time.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

Our business is built on trust: trust between us and our customers and trust between us and our valued partners. This is why NPS (Net Promoter Score) is our number one metric. When you establish a culture built on trust, the lines between business and building relationships become one. By establishing relationships with our customers, and serving as their advisor, we've built a sense of community and loyalty. That loyalty has turned into advocacy & retention.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

Our branded partnership distribution strategy is scaling and working very well. We protect our partners' brands while significantly improving the value they deliver to their existing customers. As more of these branded partnership opportunities present themselves, the future of insurance distribution will also be tied to the proper capitalization of these digital partner efforts, since early market leaders like CoverHound & CyberPolicy will naturally need more resources to secure more of the market.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

Financial institutions are a major part of our strategy for insurance distribution and improved digital customer engagements. With financial institutions facing their own disruption and new challenges from other major brands entering their space, improving their relevant product offerings and efficient revenue opportunities from these new products becomes a must to stay relevant. Our goal is to provide these brands with compliant and curated P&C insurance options.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

The continued advancements in APIs and the improvements with SSO (single sign-on) will allow companies to further protect customers' data and privacy, while making more relevant product offerings within a single branded experience vs. referring their customers to other companies' websites, storefronts or other Apps.

Consumers engage with fewer and fewer brands or "Apps" as they become more digitally savvy. This means the winners will have the most complete curated choice for related product options, with highly consistent fulfillment across hundreds or thousands of providers (sellers).

Financial institutions that can improve the variety of relevant financial products they offer with real curated choice" will maintain their engaged customer base the longest. Our mission at CoverHound & CyberPolicy as a "Partner Distribution Platform" is to specialize purely in making the right P&C insurance curated choices Fast, Accurate & Actionable", which will create a win-win-win for financial institutions, insurance carriers and the customers they mutually serve.



ELLEVEST

What inspired you to start your business?

The financial advice industry in the United States has a long track record of doing a great job for men, but not necessarily for women. Eighty-six percent of financial advisors in the United States are men who, on average, are more than 50 years old. The industry is rife with jargon, talk about picking “winners” and “losers,” and sports and war analogies. If that’s not enough, the symbol of the industry is an aggressive, masculine bull.

Whether intentional or not, its messages like these that have made investing feel inaccessible to many women. In fact, 71% of women’s assets in the U.S. are in cash. And women control \$5 trillion dollars of wealth individually, and another \$5-7 trillion jointly with their partners. We founded Ellevest to answer a simple question: “Why don’t more women invest, and how can we change that?”

Who is your target user base & what is your mission for this group?

Ellevest’s digital investing product targets professional women who have the basics of their financial lives in order. They’ve paid off any high interest debt, they’re likely actively contributing to their 401(k)’s, and they’re looking for a place to actively invest toward their goals.

Our mission for this group is that they invest at higher rates, and define and make progress towards their goals. We believe that money is power. When a woman is in a position of financial strength, she has more strength to ask for the raise, leave the bad relationship, or go out and start her business. She’s not beholden to anyone.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

The real friction we’ve found we’re overcoming is inertia -- many women are simply not investing and need to get started. Our initial research



Sallie Krawcheck
Co-Founder and CEO
Ellevest

showed us that women care less about outperforming the markets and more about questions like “Will I have enough to make the down payment on my house,” or “Will I have enough to retire when I plan to?” That’s why we built a goals-based platform that gives a 70% likelihood of reaching your goals in all market scenarios.

When you take a hard look, the “gender neutral” industry isn’t so gender neutral. Our forecasts take into account the fact that women live 6-8 years longer on average, their salaries peak 10-15 years earlier, and they often have different career paths and preferences. No other platform currently does this.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

We’ve found that what’s right for our clients tends to be right for the business, and our investors share that philosophy. We’re leveraging extensive user research as we think strategically about our priorities. This has led us to launch additional services such as financial planning, executive coaching, and private wealth management over



ELLEVEST

the past year. The creation of these offerings to meet client demands has simultaneously allowed us to diversify our revenue streams.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

As we grow, we are uncovering new opportunities that align with our mission of getting more women to invest. For example, there is high demand among our client base for investing in social causes that advance women. That's an area that's in clear alignment with our mission, and is something we believe we are uniquely positioned to execute on. Building portfolios that offer this is something we believe will provide further incentive for women to invest toward their goals.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

That remains to be seen for us. What we have experienced is a convergence between digital and human advice. There's been increasing demand from clients to talk to financial advisors, financial planners, and career coaches.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

The global financial system is poised for unprecedented innovation. We anticipate progress will come from things like real time payments, exploring Blockchain technology as the basis for more efficient settlements, and leveraging alternative credit models for historically underbanked borrowers.

What inspired you to start your business?

How people buy cars is broken—which isn’t surprising given that the physics of the act itself haven’t changed in decades. In fact, less than 1 percent of car buyers have said they prefer the current car-buying process. At Fair, we set out to innovate the automotive customer experience—alongside the dealer partners who provide our inventory—so the process reflects the way people make transactions in every other industry: on their phones and with total flexibility.

Who is your target user base and what is your mission for this group?

Fair is targeting the modern consumer who has no tolerance for the friction, intimidation and financial commitment involved in buying or leasing a car. We think Fair represents what car ownership will look like in the future because of its unparalleled benefits for both dealers and customers in making car transactions digital, affordable and flexible.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity for your user base?

Primarily, we think it’s patently unfair that, to buy a car, customers have to enter a high-friction, combative environment, potentially borrow up to a third of their gross income, and endure years of commitment and debt. And then what are they left with? A depreciating asset they’re often tired of driving long before their loan is up, and that they have no idea how to sell in the end. Combine these headaches with the fact that the terms of your typical auto loan could spell financial ruin for someone if their situation changed and they could no longer afford to pay, and you’ve got more than mere “friction”; you’ve got an epidemic that is causing massive financial stress to millions and millions of people who simply want access to transportation.

This process exists because 90 percent of car



Scott Painter
Founder and CEO
Fair.com

buyers have to borrow money to buy a car—often from a third-party with a long-term payback commitment. At Fair, we’ve been able to overcome this stumbling block by fully funding every transaction made in our app ourselves—and then essentially leasing the selected car to the customer for as long as they want to drive it. Because we’re not lending money, we can often make Fair available even to customers with no or low credit as long as they prove an ability to make their monthly payments. A customer can get approved for a Fair car simply by scanning their driver’s license, pick the car they want on the app, sign for it with their finger, digitally pay the start payment, then just grab the keys and go. It’s a total game-changer in the auto industry, and the first real auto finance innovation since leasing.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

Our financial partners are investing in Fair precisely because of the benefits we’re able to offer both dealers and customers. We aren’t undercutting the costs of an existing business and costing our investors money in the process. We developed a better way to get and have a car by

creating unprecedented efficiencies in the process, which is a win-win for our customers and investors alike.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

The biggest challenge ahead of us is simply changing how consumers think about getting a car. We've all been conditioned to think that you borrow a bunch of money, buy the car, watch it depreciate, and trade it in for pennies on the dollar, only to start the cycle all over again with the next vehicle. We need to make customers aware that there's a totally new method for getting a car that eliminates these pain points, and we're likely going to spend years making people understand it by telling our story again and again and again. We invented an entirely new model, and our main obstacle will quite simply be the time it takes people to process the idea.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

For a long time, consumers had to go to the bank to get a car. In our model, we at Fair are the ones going to the bank for them. Banks will still be the primary source of auto loans in our platform, but we're going to be the ones filling out the forms and borrowing the money. Going to traditional deposit-taking financial institutions as a source of upstream capital is a huge part of the plan for us. They still want that money to go to work and gain yield, and we're going to be a fantastic way for them to do that.

Stepping away (perhaps) from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

The biggest challenge to continuing to grow the financial future is simply working toward a consistent regulatory environment across countries and economic regions. Companies looking to grow globally have to conform their processes to fit all the various legal systems in the world. Companies need platforms for mobile adoption and they need highly regulated, technology-sensitive and mature environments to operate in.

What inspired you to start your business?

The U.S. healthcare system is the largest in the world and also the most complex — and it is broken. Fixing it is the challenge of our time and will take virtually everyone's help. We saw that our place in this challenge was to use our technical and organizational expertise to help solve a specific and critical issue: to help everyone feel the comfort and security of having affordable, quality healthcare.

The problems the U.S. health insurance system faces can roughly be divided along the lines of cost, access and quality. HealthSherpa focuses on improving access to affordable health care by ensuring that everyone who needs coverage has access to it and knows how to use it.

Who is your target user base & what is your mission for this group?

The United States does not guarantee health coverage to all citizens. As a result, coverage is roughly evenly divided between employer-based and public coverage (Medicare for retirees and the permanently disabled, Medicaid for the financially disadvantaged, and Tri-Care/Veterans Administration for the military and their families). In any given year, about 30 million individuals fall outside of these sources of coverage. Americans who need individual health insurance coverage are our primary customers.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

The Affordable Care Act created the legal and regulatory framework for expanding access to the individual population not eligible for other sources of coverage but did not create an adequate, sustainable operational framework for distribution of this coverage. We are solving that



George Kalogeropoulos
Co-Founder and CEO
HealthSherpa

problem by building the “last mile to coverage” — the tools, technology, and outreach needed to ensure that everyone who wants coverage can access it and understand how to make the most of for both their health and financial well-being.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

One of HealthSherpa's driving business principles is to take the long view towards value creation — i.e. we believe the best financial outcome for the company and for our investors will be achieved only through focusing exclusively on meeting the long-term needs of our clients. Among other things, this approach means always recommending the most suitable coverage for a customer, irrespective of our own commission-based compensation.

By prioritizing our customers' needs we gain their trust and loyalty that equates to a greater profit margin per customer over time. The economics of our business are such (high CAC, high LTV) that clients who stay with us for a long time are very valuable, and we can only achieve that outcome

by building trust and consistently providing unbiased, high quality guidance and advice. We are fortunate enough to have investors who understand and appreciate that.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

Healthcare is a highly politicized topic in the United States, and that creates all manner of friction, uncertainty and regulatory risk for our business. Navigating those waters is a major challenge and opportunity for us. Additionally, we face all the classic problems that startups in the growth phase encounter - hiring, scaling, and focus included.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

To the extent that deposit-taking financial institutions in the US have clients who need individual health insurance coverage, they would be excellent collaborators for us.

Ensuring clients have access to high quality, affordable health coverage is not a core focus for non-diversified deposit-taking financial institutions, but doing so can help clients' health, wealth, and credit scores, which in turn can expand the market and per-customer performance for these institutions.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

Like healthcare, the financial system suffers from an access problem. The existing global financial infrastructure is skewed towards servicing the needs of a subset of the population of the developed world, and as a result does not do a good job of meeting the financial needs of a large portion of humanity. This is ultimately inefficient, in that skilled entrepreneurs without access to capital are constrained and may see their talents wasted, and many people don't have access to critical financial products and services such as insurance that can help them better manage risk, respond to crisis, and take advantage of opportunities.

Solving the "access problem" will require rethinking how financial services are provided. In particular, we'll need to rebuild our financial infrastructure using technology in order to make it possible to provide a wide range of financial services to a broad audience in a scalable way and with very low marginal costs.

Blockchain-based technologies hold tremendous promise in this regard, as has been discussed at length. However, there are simpler, easier wins to be had in just taking existing technologies and making them more broadly accessible by adapting them to local markets around the world. A great example of that are the range of financial services including automated, "micro-insurance" that are available through chat/messaging clients in China.

What inspired you to start your business?

We recognized the opportunity to automate small business lending using APIs, rather than paper-heavy, costly and time consuming applications. Today, customers can connect a host of business data to Kabbage, including their bank account, to payment processors, bookkeeping software, shipping data, business social accounts and more, to be approved for a line of credit up to \$250,000 (all in less than 10 minutes). Today, Kabbage has provided more than \$4 billion to over 130,000 small businesses.

Who is your target user base & what is your mission for this group?

Kabbage serves a variety of small business, across all verticals and in all 50 states. From restaurants to salons, construction companies and online retailers, we offer radically uncomplicated access to working capital.

Our mission is to remove the friction in a small business owner's daily activities. We like to say, "let the chefs cook." What we mean by that is small business owners started their businesses because they had a passion for their craft, not because they were particularly interested in spending hours on paperwork and back-office management. We want to remove any and all barriers to small business success.

What is the central "friction" that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

Kabbage supports small businesses that were previously underserved. There is a cost-to-margin imbalance with traditional lending. It's not that banks don't want to lend to small businesses, it's simply hard to and to do cost effectively. The friction for banks is that it costs banks the same to underwrite a \$5 million loan or a \$50,000 loan. There is little profit in serving the latter, and



Kathryn Petralia and Rob Frohwein
Co-Founders
Kabbage

in result, those small businesses are often declined. Kabbage provides small businesses the opportunity they would have otherwise not received from traditional funding sources.

Our real-time, persistent access to small business data is a unique advantage of Kabbage. Today, we have 1.7 million live data connections across our customer base. This allows Kabbage to have a living and breathing relationship with our customers, providing ongoing lines of credit that are always available throughout the lifecycle of their business. Kabbage lines of credit will automatically increase as our customers improve business performance.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

We serve a market that was previously underserved. Every small business that receives working capital from Kabbage benefits from a service they otherwise would not have received.

Our investors benefit from the same: meaningfully serving a dramatically underserved

market. As we launch new products and increase our lines of credit, we are simultaneously drawing a larger circle around an untapped market while meeting the funding needs of larger, more established businesses. Kabbage has grown nearly 1,000% over the past three years.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

When your customers are small businesses, there are many ways to reach them. As we expand our credit limits to serve more businesses and launch new products, that also means expanding our marketing efforts to effectively reach them.

We must continue to diversify our approach to reaching and assisting these small businesses as their needs evolve.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

Kabbage strongly believes in Fintech companies working alongside banks. We currently license our Kabbage Platform to three of the world's largest banks: Santander, ING and Scotia Bank. These relationships allow Kabbage to expand across borders, providing simple access to working capital to the millions of small businesses these banks currently serve.

We operate in Canada, Mexico, UK, France, Italy and Spain, and as our technology is 100% automated, we are able to expand the Kabbage footprint without overhead in these countries.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

A tired argument is that banks and Fintech companies are always in competition to overtake one another. However, Kabbage has a different approach.

There are fundamental benefits in collaborating, but innovation can only be as the adopter, and adoption—especially in the financial services—comes with regulation.

There is still education required across constituents, from banks to regulators, policy makers and small businesses. This education does not happen overnight and requires a concerted effort from multiple players to show that responsible innovation should be embraced. In addition, banks and Fintech companies can support appropriate regulation to open doors for greater opportunity for the customer.

What inspired you to start your business?

In 2009, we started an entertainment company Matchmove Play – a B2B entertainment platform for large telcos and media companies in Asia. We then discovered that for non-US, non-European markets, traffic was not monetizing and one of the key reasons was that payment methods were very different. Asia was a market that had extremely high mobile phone penetration but card and bank penetration was very low. So as we grew, we had to constantly look for different local payment methods such as scratch cards. But adopting different payment methods requires huge integration work and the requires us to constantly add new payment gateways. So in 2014, we decided to build a solution for ourselves. So in short, the inspiration for Matchmove Pay came from our previous business but also a realization that if we can solve this problem for ourselves, then we can solve the same problem for many other businesses as well.

Who is your target user base & what is your mission for this group?

Initially, our target user base was the uncared and unbanked groups especially across developing countries who couldn't transact easily online. Most Asian countries have 100% mobile phone penetration but only 3% have credit cards and 24% have bank accounts. In other words, there is a large group of consumers who have access to a phone and live an "app" life and who have money but simply do not have the ready means to transact. So our mission was to give these people the access they previously lacked.

We believe there are three primary means through which money moves – 1) spend; 2) send; and 3) lend – and our primary objective was to allow users to do all those three without having to go to a bank.

The interesting point is that as we evolved, we found a new user base ranging from insurance companies wanting to use our platform for their insurance payouts to large corporates for their



Shailesh Naik
Founder and CEO
MatchMove Pay

payrolls and even governments who wants to digitize their payments. We now have 50 million active users across 7 countries and it's exciting to see our user base expand beyond what we had originally built for.

What is the central "friction" that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

I think friction here exists in two levels. First is a friction around physical cash vs. digital cash. 100 million people are joining middle class in Asia alone and they've been dependent on cash for so long. They are looking for means through which to convert their physical cash into digital cash. Our lives are becoming ever more digital so our money also needs to become digital as well.

The second friction is around regulation. Understandably, there are rules about what can be done and what cannot be done with money but this causes a significant friction because regulators remain largely reactive. There are also very proactive regulators around the world (Singapore, Korea, U.K.) but are few. This means that they will wait and watch what the incumbents are doing and then establish rules. This makes regulation move

too slow and much behind the pace of technology.

What makes Matchmove Pay different is that we are a global B2B company that puts the users first. Because we are a B2B, white-label business, we don't have a brand we need to worry about. This gives us an enormous flexibility. We operate as a platform as a service and work in a partnership model which enables us to always put users first.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

Achieving one and the other go hand-in-hand. We think growth comes from two sources: revenue and user base. If you are generating a large user base and hence a large revenue base, then investors are happy and we also know that we are serving a large addressable market. As long as we stay focused on the product and enable the B in the B2B2C to serve the C well, I think we can achieve both objectives.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

No new friction – I'd just focus on the two frictions I highlighted earlier.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

Banks are an essential part of our value chain. If we tried to replace them, we would waste enormous amount of time and capital and the uncared and unbanked segments, the very group we want to serve, will remain unserved. We therefore try to partner with them and demonstrate that partnership can also benefit themselves.

Banks need to collaborate and those who do not will naturally "die". I think banks themselves recognize the need to do. There are some regulators such as the one in the UK who are now giving digital banking licenses which enable online

only banks to take deposits and provide banking services as a purely digital service. When you have an entrant like that, those existing banks who do not evolve will inevitably not survive.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

This is a great question. Financial inclusion is not possible today without digital inclusion. We have been talking about financial inclusion for decades. It is not a new concept but I think the reason why it's become more interesting is because we now have a solution at hand – through the widespread use of internet and mobile phones. So, my message to the government/regulators is two-fold: First, we need to reduce tariffs or increase subsidies so that everyone has an access to a smart phone. We need to treat digital inclusion as a social right. Governments around the world are talking about universal access to health and education, and water. I'd ask the government to take the same step with digital access.

Second, we need to do the same with broadband and data access. Telcos these days are focused on the next generation broadband network and they're chasing profits. Government needs to step up and ensure that certain segments of the economies are given access to data. One idea is to have telcos dedicate 10% of their business to rural or financially unincorporated areas.

We need to make sure we take everyone with us in this digital revolution. And everything will then take care of itself.



What inspired you to start your business?

All three of our co-founders had personal experience of the challenge as all three of us as immigrants.

We're from Russia, the Netherlands, and the UK respectively. We moved to the US at different life stages and have seen the challenges of accessing credit and housing while being invisible to the US credit reporting industry.

We started the company as a Stanford research project and it took off there

Who is your target user base & what is your mission for this group?

Ultimately, our mission is to enable immigrants to realize their full potential. We want to create equality among all applicants for financial services and housing so that immigrants no longer need to start from scratch.

Our business is initially solely B2B-focussed: we sell our data to large Financial Institutions, Fintech companies, tenant screening platforms, and property managers. That said, we also engage with consumers in order to make an overseas credit pull and we are effectively using a B2B channel to solve a consumer pain point.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

The central friction that we are striving to overcome is the information asymmetry that exists when a non-US consumer applies for a US loan. The financial institution involved has no way of viewing that person's overseas credit history and so cannot make an informed decision (and typically rejects the consumer)

To solve this, we've had to build a cross-border credit bureau (the only one in the world) in order to unlock data from one country to another. Effectively, what is distinctive about our strategy



Nicky Goulimis, Loek Janssen, Misha Esipov
Co-Founders
Nova Credit

is its intensity in terms of both (1) business development: We have created international partnerships with the largest financial institutions in the world, and developed a platform with credit bureaus in 4 continents, (2) Regulatory: we've built a network of international entities and adopted a "regulator-first" approach by becoming a CRA in the US, as well as ensuring adherence to international data privacy and security requirements

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

We believe that we are in a unique win-win-win situation: by growing our business we are able to maximize the users that we serve while unlocking financial opportunity for our customers and investors.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

As we look to our business growing, we will constantly face complexity in terms of serving new verticals and geographies. For instance, we



recently launched our business in Canada which required a new operational, partnership, and regulatory model to be developed.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

Traditional financial institutions are our collaborators as they are the users of our data. For them, our data presents an opportunity to turn millions of declines into accepts and thus grow their market.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

What certainly hampers immigrants from owning and sharing their domestic credit history overseas today are both the technological and regulatory barriers that the immigrants' domestic credit bureaus impose.

Usually, it is operationally complex and sometimes even requires fees for an individual to access their own credit file, let alone share this credit data overseas. We found this to be an issue with many international credit bureaus and welcome both regulatory and technological advancements in this area.

Because our business operates across geographies and legacy technological infrastructure, our regulatory and technological barriers are manifold: First, as any company operating in two countries knows, marrying two different regulatory regimes (especially with data as sensitive as that affecting consumer credit) is difficult. Doing so across

currently 11 (and growing to dozens) requires not just patience but innovation. As Europe is doing with the GDPR, countries around the world must move to the philosophy that consumers own access to their own data. To make consumers more mobile, economic opportunity more widespread, and global financial capacity more realizable, consumers must be able to dictate to whom their data can be sent. Archaic regulations sometimes hamper this reality, and consumers are the worst for it.

Secondly, much of that consumer data sits in databases that are very difficult to access. For example, in markets where authentication can only happen via paper or in-person solutions, credit reports are excessively difficult to obtain. Nova's innovation is to build software that allows real time cross-border sharing of data, but we often rely on credit data and ID verification being easy to access in the home country. It is again to the consumers' detriment to have to endure such manual processes to obtain basic but important information about their financial lives, so innovations here unlock a lot of potential.



TransferWise

What inspired you to start your business?

My co-founder Taavet and I started TransferWise when we realised how much money it cost to transfer money between the UK and Estonia.

Taavet was based in London but paid in euros and I worked in London but paid a mortgage in euros. We each needed what the other had so we figured out a fair way to exchange money between ourselves using the mid-market rate – without the exchange rate mark-up and fees charged by banks.

We saved thousands of pounds and realised there were millions of people across the world who could do the same.

Who is your target user base & what is your mission for this group?

Our mission is to make money without borders. We want international money transfers to be instant, convenient, transparent, and eventually free.

We're powering money for people and businesses in their increasingly global lives so they can pay, get paid, and spend in any currency wherever they are.

TransferWise customers are anyone who lives, works, studies or does business overseas.

We're making the world a bit better by helping to make the financial system fair.

What is the central “friction” that your company is striving to overcome/mitigate, and what is distinctive about your strategy for enhancing financial capacity your user base?

Taavet and I started the business because we had experienced first-hand how the industry was broken and how easy it was for consumers to be ripped off.

TransferWise helps customers manage their



Kristo Käärmann
Founder and CEO
TransferWise

money across borders without the expensive, hidden fees that banks have charged for years.

We're typically eight times cheaper than banks and are always looking for ways to make our service cheaper. For example, we recently dropped our prices in many markets around the world.

Fundamentally, we think moving money today is like sending an email - we're moving bits and bytes around so the marginal cost should approach zero.

Can we eventually make it free? We don't know yet, but we're going to try. Today, this means we pass on savings from regulatory or technical innovation to our customers instead of pocketing the gains.

How does your business model balance the objectives of (a) providing benefits to your user base and (b) meeting the financial targets of your investors?

We're growing 150% year on year and we've been profitable since the beginning of 2017. We've done this by focusing on making our services as cheap, fast, and convenient as possible for over 2



TransferWise

million customers. We're just at the starting point.

As your business develops, are you seeing new frictions or barriers that you see as high priorities for overcoming?

Our biggest challenge is still that most people are unaware that banks take a huge percentage of their money in hidden fees when sending money abroad. We've done studies all around the world that show the vast majority of consumers cannot correctly identify the true cost of sending money abroad - the upfront fee plus the bank's non-transparent markup on the exchange rate.

To what extent, if at all, are traditional deposit-taking financial institutions potential collaborators for fulfilling your mission?

We're trying to make finance more fair. If banks make their pricing transparent and lower their fees, it would be a fantastic step toward our mission. But banks have profited from the current system for decades - it seems unlikely they'll change any time soon.

Stepping away from your own company's mission, what do you see as the major regulatory or technological breakthroughs needed to take a major next step forward in building global financial capacity?

Technology is not a blocker, as most financial services are still running 10-15 years behind technology.

Financial services need to be regulated, otherwise bad actors will end up harming consumers for profit. The opportunity is to design these regulations such that it is easier for new products to be built and new entrants to compete. That competition will eventually drive the biggest benefits to consumers.



100 Leading Financial Technology Companies Promoting Financial Inclusion

Selection Criteria

The firms included in the list of 100 leading Fintech companies promoting financial inclusion were chosen by the panel of judges based on their impact in promoting financial inclusion.

The list was limited to private, for-profit corporations that have an established track record and have gained reasonable traction in using their product and/or service to promote financial inclusion.

List of 100 Fintech Firms Innovating in Financial Inclusion

	Company	Region	Area of Focus
1	Acorns	United States, Australia	Savings and Financial Planning
2	Adyen	Europe	Payments
3	Affirm	United States	Lending and related ecosystem
4	Akulaku	Southeast Asia	Lending and related ecosystem
5	Ant Financial	China	Payments, Savings and Financial Planning, Lending and related ecosystem
6	Atom Bank	United Kingdom	Savings and Financial Planning
7	Ayannah	Philippines	Payments
8	BankBazaar	India	Lending and related ecosystem
9	Better Mortgage	United States	Lending and related ecosystem
10	BillTrust	United States	Payments
11	BIMA	Africa, Asia, Latin America	Insurance
12	Bkash	Bangladesh	Payments
13	Bloom	United States	Savings and Financial Planning
14	Bluevine	United States	Lending and related ecosystem
15	Branch	Africa	Lending and related ecosystem
16	Capital Float	India	Lending and related ecosystem
17	Cignifi	Africa, Asia, Latin America	Lending and related ecosystem
18	CompareAsiaGroup	Asia	Savings and Financial Planning
19	Coverfox	India	Insurance
20	CoverHound	United States	Insurance
21	CoverWallet	United States	Insurance
22	Credit Karma	United States	Lending and related ecosystem
23	Creditas	Brazil	Lending and related ecosystem
24	CreditEase	China	Savings & Financial Planning, Lending and related ecosystem
25	CreditMantri	India	Lending and related ecosystem

List of 100 Fintech Firms Innovating in Financial Inclusion (Cont'd)

	Company	Region	Area of Focus
26	Dianrong	China	Lending and related ecosystem
27	Digit	United States	Savings and Financial Planning
28	Earnin	United States	Lending and related ecosystem
29	Ellevest	United States	Savings and Financial Planning
30	Fair	United States	Lending and related ecosystem
31	Farmers Business Network	United States	Lending and related ecosystem
32	Flywire	United States	Payments
33	ForUsAll	United States	Savings and Financial Planning
34	Fundbox	United States	Lending and related ecosystem
35	Fundera	United States	Lending and related ecosystem
36	Funding Circle	United Kingdom	Lending and related ecosystem
37	GoFundMe	United States	Lending and related ecosystem
38	Greensky	United States	Lending and related ecosystem
39	GuiaBolso	Brazil	Savings and Financial Planning
40	HealthSherpa	United States	Insurance
41	Hippo Insurance	United States	Insurance
42	IFMR Holdings	India	Savings and Financial Planning
43	Iyzico	Turkey	Payments
44	Juntos	United States	Savings and Financial Planning
45	Juvo	United States	Lending and related ecosystem
46	Kabbage	United States	Lending and related ecosystem
47	Konfio	Mexico	Lending and related ecosystem
48	Kreditech	Germany	Lending and related ecosystem
49	Ladder	United States	Insurance
50	Lemonade	United States	Insurance

List of 100 Fintech Firms Innovating in Financial Inclusion (Cont'd)

	Company	Region	Area of Focus
51	LenddoEFL	Asia, Latin America	Lending and related ecosystem
52	LendingHome	United States	Lending and related ecosystem
53	LendingKart India	India	Lending and related ecosystem
54	LendUp	United States	Lending and related ecosystem
55	Lufax	China	Savings & Financial Planning, Lending and related ecosystem, insurance
56	Mambu	Germany	Savings and Financial Planning
57	Matchmove Pay	Asia	Payments
58	MicroEnsure	Asia, Africa	Insurance
59	Mirador Financial	United States	Lending and related ecosystem
60	M-Kopa Solar	Kenya	Payments
61	Mobikwik	India	Payments
62	MoMo	Vietnam	Payments
63	Moneyview	India	Savings and Financial Planning
64	NAV	United States	Lending and related ecosystem
65	NeoGrowth Credit	India	Lending and related ecosystem
66	Nerdwallet	United States	Savings and Financial Planning
67	Nova Credit	United States	Lending and related ecosystem
68	Nubank	Brazil	Savings and Financial Planning
69	Nutmeg	United Kingdom	Savings and Financial Planning
70	Onfido	United Kingdom	Savings and Financial Planning
71	Oportun	United States	Lending and related ecosystem
72	Oscar	United States	Insurance
73	Paga	Nigeria	Payments
74	PayJoy	United States	Lending and related ecosystem
75	PayTM (One 97 Communications)	India	Payments

List of 100 Fintech Firms Innovating in Financial Inclusion (Cont'd)

	Company	Region	Area of Focus
76	Plaid	United States	Savings and Financial Planning
77	PolicyBazaar	India	Insurance
78	ProducePay	United States	Lending and related ecosystem
79	Raisin	Germany	Savings and Financial Planning
80	RateSetter	London	Lending and related ecosystem
81	Remitly	United States	Payments
82	Revolut	United Kingdom	Payments
83	Shubham	India	Lending and related ecosystem
84	SolarMosaic	United States	Lending and related ecosystem
85	Stash Investments	United States	Savings and Financial Planning
86	Stockpile	United States	Savings and Financial Planning
87	Stripe	United States	Payments
88	Tala	Africa	Lending and related ecosystem
89	Transferwise	United Kingdom	Payments
90	Trulioo	Canada	Savings and Financial Planning
91	Trusting Social	Vietnam	Lending and related ecosystem
92	UAE Exchange	UAE	Payments
93	Upgrade	United States	Lending and related ecosystem
94	Upstart	United States	Lending and related ecosystem
95	Varo Money	United States	Savings and Financial Planning
96	Vestwell	United States	Savings and Financial Planning
97	Wealth Simple	Canada	Savings and Financial Planning
98	WeLab	Hong Kong	Lending and related ecosystem
99	WorldRemit	United Kingdom	Payments
100	Zopa	United Kingdom	Lending and related ecosystem

100 Leading Fintech Companies Promoting Financial Inclusion in the Digital Age

Privately-held, for-profit organizations with an established track record using their product and/or service to promote financial inclusion



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Lending & Related Ecosystem



Savings & Financial Planning



Payments



Insurance



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