FINTREK
EXPLORING NEW FRONTIERS IN FINTECH INVESTMENTS IN EAST AFRICA
With the rapid mobile penetration in emerging economies, FinTech may easily be the buzz word or the flavor of this decade. While FinTech refers to firms leveraging technology to deliver financial products/services or capabilities to customers or other financial services firms, it has also carved out its distinct offering to create a full-fledged sector group, complete with its own service providers, accelerators and market. Once a conduit of the traditional financial service sector, today, FinTech holds its own as a mainstay service sector.

Even with the robust growth in FinTech, some questions remain unanswered - what spurred the FinTech growth? Is it scaleable? Is it sustainable? How are global economies such as India and China accommodating the FinTech disruption? This report traces back the evolution of FinTech on one of Africa’s early adopting regions, East Africa and covers the views of various voices in the ecosystem, each providing the uniqueness of the emerging sector, sub-models, their value propositions and feasibility, in an attempt to demystify this complex ecosystem.

The report’s core explores the funding options currently available for the sector ranging from debt offering, grants and equity provision. With the increased success of FinTech players in East Africa, investors are keen to understand the opportunities available for capital deployment in East Africa’s FinTech space. Here, we have assessed the financing options currently available in the market for target investors. We have also explored the risks associated with the sector and how other investors deal with this. Finally, the report has explored returns available for FinTech investors in East Africa, to provide guidance on the region’s earnings potential.

This report would not have been a success without the generous contribution of Financial Sector Deepening Africa (FSD-A) and the Netherlands Development Finance Company (FMO), whose guidance and financial support allowed for an extensive and thorough market study. We are also grateful for the over 150 FinTech companies and investors who patiently engaged our research team.

Finally, while we have taken caution to accurately represent the investment opportunities in FinTech, this report should be used as a guidance for investors and not as the conclusive position of the industry. Partners involved in the development of this report will not be held responsible for any decisions made or action taken based on information drawn from the report.
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East Africa has always been hailed as the torchbearer to the FinTech industry, driven by the same key disruptions as the global FS world – use of alternate data, peer to peer transactions, and the rise of non traditional players offering financial services. But the principle enabler in the region has been strong mobile and internet penetration, in the bottom of the pyramid (BoP) segments, which have driven success using basic ussd technology. The second key enabler was the gap in the financial services landscape across all key dimensions and markets – lending, savings & payments, and personal financial management, which allowed the FinTechs to come in with a strong value proposition.

Lending FinTechs took advantage of the bank-led lending being focused on the corporate segments, and penetrated into the BoP – nano lending segments. There is however, still a large gap in the MSME and mid income segments such as asset backed finance, education finance etc. that FinTechs can easily tap into. Instant lending driven customer experience has also been a big customer value proposition for the FinTechs. Risk based pricing is another key value proposition that FinTechs are providing vis-à-vis the traditional lenders.

Apart from Kenya, the deposit penetration and access to banking services in the other East Africa countries is relatively low. Therefore, mobile wallet based FinTechs allowing customers to save money that is instantly accessible and payable has emerged as a strong value proposition. The East Africa region has experienced rapid advancement in the payments sector over the last decade. While Kenya is regarded as the most mature payments economy in the region, Tanzania is displaying faster growth, both in payments migration and transaction KPIs. Despite the advancement, the sector is challenged by technology (interoperability), regulatory and pricing constraints which presents more opportunities for FinTechs.

From a PFM perspective, East Africa is a low insurance/investment focused market, and it will be tough for FinTechs to make an impact, except where the value proposition is exceptional, such as aggregation/price comparison engines, data based premium calculation etc.
FINTECH DISRUPTIONS: GLOBAL DRIVERS

The financial sector has been undergoing a significant shift globally driven by technological innovations, new customer behaviors and changes in regulations after the financial crisis.

*The financial technology industry, popularly known as the ‘FinTech’, refers to firms leveraging technology to deliver financial products/services or capabilities to customers or other financial services firms.*

These products / services are usually, more innovative and much cheaper when compared to those offered by the traditional financial institutions.

Diversity and rapid evolution of emerging business models for financial services have led to an exponential growth of the FinTech industry.

Global investments in FinTech and the number of startups in FinTech has grown exponentially in the period 2014 - 2015. These investments translate into a flurry of new business models, including pure online banks and insurance companies, non-bank lenders, credit scorers using big data, payment services offered by technology companies.

Diversity and rapid evolution of emerging business models for financial services have led to an exponential growth of the FinTech industry.

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FinTech market projected to grow at 25% from $3300 billion to 5082 billion in 2019.

More importantly, the digital finance ‘market share’ will grow from 10% to 27% during this period.

Asia Pacific and Africa have been harbingers of mobile payments which has led to the FinTech boom in these regions. This emerged from a significant gap in the traditional banking and financial services infrastructure. China contributes the largest proportion (33% of US$ 1,086 billion in 2017) of the total transactions being conducted globally.

Today, the number of mobile payment users in developing and less developed regions is higher than in developed regions.

### Number of mobile payment users from 2009 to 2016, by region (in US $ Mn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Developed Regions (Europe &amp; North America)</th>
<th>Developing Regions (Asia/Pacific and Middle East)</th>
<th>Less Developed Regions (Africa &amp; Latin America)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>120</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>2010</td>
<td>150</td>
<td>137</td>
<td>137</td>
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<td>2011</td>
<td>200</td>
<td>162</td>
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<td>250</td>
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<td>2013</td>
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<td>2014</td>
<td>350</td>
<td>254</td>
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</tr>
<tr>
<td>2015</td>
<td>400</td>
<td>302</td>
<td>302</td>
</tr>
<tr>
<td>2016</td>
<td>450</td>
<td>355</td>
<td>355</td>
</tr>
</tbody>
</table>

CAGR of the regions

- 20% 23%
- 37%

Number of mobile payment users globally (in Mn)

### The FinTech Disruption Framework

Technology and innovation across different areas have led to disruptions which in turn have enabled this growth of FinTechs. Some of these enablers such as mobile and internet penetration, big data analytics, and other technological advances like artificial intelligence have led to 3 key disruptions that are responsible for the FinTech explosion:

- Use of alternate data in financial services
- Rise of peer-to-peer transactions
- Emergence of non-traditional players offering financial services
Use of Alternate Data in Financial Services

Non-traditional players offering innovative financial services

Peer to Peer Transactions

Big Data Analytics | Biometry | Mobile | Internet Penetration | Regulation | Population Demographics | Growing Use of Social Media | Digitisation of National Identities | Interoperable Infrastructure

Scalability
Customers | Transactions | Volume & Value

Feasibility
Business Model Stability | Profitability / Breakeven

Ecosystem
Partnerships, ecosystem infrastructure and regulations

Value Proposition

Growth
- Access to new geographic markets
- Serving new customer segments
- Facilitating Cross-Selling
- Product innovation & customisation
- Improving customer experience

Efficiency
- Reducing cost of operations
- Differentiated pricing

Risk
- Data Security
- Credit Risk

Enablers

Funding

Partnerships, ecosystem infrastructure and regulations

4
1. Use of alternative data

**Alternative data is being used to assess credit worthiness of customers who lack prior banking history in order to enable access to finance...**

Lenders are leveraging alternative data sources to create a credit score for clients who lack banking history and as a result are financially excluded. For example, some lenders might not lend to a person with a credit score less than 620. Some of those lenders might be willing to do so if they could determine which people are less likely to default on the loan by looking at other sources of data. Few of the parameters which are being considered for credit decisions include utility bills, payments, telecommunications bills, psychometric analysis, credit card transactions, etc.

**It is enabling financial institutions to improve their service and make banking more convenient for the end users...**

Some kinds of alternative data, such as online bank account information, may allow lenders to automate tasks that are done manually during the loan approval process. This automation might speed up application processes or avoid subjective interpretations that may sometimes lead to differences in treatment or wrongful discrimination.

...by significantly reducing cost.

By leveraging alternative data financial institutions can deliver financial services without the need of brick & mortar branches and in the absence of rigorous physical verification. This is significantly impacting the cost of lending and in turn the cost of borrowing for the final consumer.

2. Peer to peer transactions

Peer to peer transactions is not a new concept however with the advent of emerging technologies there has been an increase in momentum to consciously shift from traditional centralized economic models to increasingly decentralized collaboration based models.

**Payments has been at the core of the rise in peer to peer transactions.**

The payments sector has undergone the greatest of disruptions since the adoption of technology in the banking industry. This has been largely due to the adoption and success of peer to peer. P2P payments through mobile phones using apps or USSD has enabled this FinTech revolution in many ways.

...however today, P2P has moved beyond the payments industry.

P2P transactions have now grown to expand across the entire gamete of financial services including lending and insurance. This has seen the emergence of organisations with innovative business models such as i2ifunding & Friendsurance.

**P2P lending is now the hot space due to its huge potential**

There has been a rapid growth of online P2P lending domains due to the MSME funding gap. By leveraging technologies, online P2P lending companies are targeting the large underserved segment with the aim of improving access to finance. Cross border transaction, limited regulations, flexibility, and ease of use has been driving P2P into the lending space. P2P Insurance, a risk sharing network where a group of associated individuals pool their premiums together to insure against a risk is also gaining popularity.

3. Emergence of non-traditional players

One of the most noted disruption trends arising out of FinTechs is the increase of non-financial companies offering financial services. These refer to new market entrant FSPs which are generally outside the traditional banking institutions and cater specific financial services to its customer segments and include:

- **Technology companies** - Such as PayPal, Google (Google Wallet), Apple (Apple Pay), Samsung (Samsung Pay), Konga Wallet (Nigeria) and WeChat (Chinese messaging application) that offer e-wallet, payment, and transfer services. Technology companies can leverage their huge customer base to push adoption of their payment service.

- **Mobile Network Operators** - In recent years, MNOs have found application of innovative business models especially in the payments and lending space across developing and less-developed economies such as in Africa. These MNOs provide a range of financial services such as basic payment services or micro-loans to the unbanked population.

- **Cash Networks** - Cash networks are companies that are neither a bank nor a telecommunication company and that create their own network of agents. These agents are retail outlets, at which clients of the cash network can deposit or withdraw cash, or make transfers.

- **E-Retailers** - E-Retailers are companies that are focused on creating a market place for various products and services online. These include companies such as Alibaba & Amazon who leverage their extensive customer database to offer additional financial services like e-wallets, payments as well and lending facilities.
These disruptions, enabled by the value propositions have given birth to thousands of FinTechs globally, a startup phenomenon never witnessed before. Many FinTechs due to their robust business models have been able to taste success and have also enabled traditional financial institutions to explore areas of co-operation and partnerships to improve reach and efficiency. More importantly, FinTechs are now pushing the traditional players to become more creative and agile. Soon, the FinTech way to doing things, will become a traditional 'BAU'.
FINTECH ENABLERS

FinTech is a rapidly growing industry in the East Africa region driven by a unique blend of technology innovations, mobile adoption and investor interests. This section outlines the enablers of this FinTech revolution in the region along with the value proposition presented by these FinTechs.

Stable macro economic environment is driving investor interest in the East Africa region
With a combined GDP growth rate of 6.2%, East Africa is the fastest growing region in Africa. Growth in the region has been driven by low commodity prices, regional integration efforts as well as heavy public investments. In addition, a decreasing inflation rate, low depreciation rates and a stable tax revenue to GDP ratio have all contributed to over 315% increase in FDI inflows to the region over the last decade.

Technological innovations in the East Africa region are particularly interesting for early stage investors/venture capitalist
A combination of government policy and private sector innovation has led to a technology revolution in the region. In particular, the M-Pesa revolution, government investments in Konza City, and the launch of innovation labs in the country have made Kenya the technology hub of Africa. This niche market is estimated to be worth $1 billion by 2019. This revolution has also brought about an increased flow of VC funding to the region. In 2016, out of a total of $121.9 million invested in East Africa startups, Kenya accounted for 76% of this amount.

These innovations have also seen global technology giants setting base in the East Africa region
Identifying the immense technological opportunities present not just in the region, but also the continent, multinationals have set up offices to leverage the market. Kenya serves as the regional office for most of these multinationals which include Google, IBM, Oracle, and Visa International.

Financial services sector has undergone a series of digital disruptions as a result of the technological revolution, giving rise to FinTechs
While there are many factors driving the FinTech revolution in the East Africa region, the report identifies and analyses the following as the critical enablers:
**Enabler 1: Demographic Trends**

*East Africa population growth is still strong; growing at a higher rate than the global average.*

The region has one of the fastest growing population in the world; growing at 2.7% CAGR compared to the global rate of 1.2%. The rapid population growth creates a huge demand for basic services which includes financial services. Given the already low penetration of formal financial services across all the countries, this increasing population is bound to widen the gap further. With a larger proportion of the population concentrated in the rural areas, there is an increased need to come up with innovative ways of increasing access and usage of financial services especially in the rural areas.

*Millennials (age group of 18-35 years) comprise 35% of the region’s population, making East Africa one of the most youthful places in the world.*

This segment has been growing at a CAGR of 3.1% higher than the total population growth rate and the global millennial population growth rate of 0.6%. Accounting for almost 70% of the workforce, the millennials are increasingly influencing production and consumption patterns in the region. Millions of people in this segment are experiencing a rapid increase in disposable income making them a key driver of growth for any sector. Described as entrepreneurial, innovative, and tech-savvy, this generation has been eager to adopt FinTech innovations as well as start their own FinTech start-ups. 56% of KCB M-Pesa users are millennials. These attributes are the ideal parameters which allow technology based financial services to establish, flourish, and become sustainable.

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**East Africa population trends**

- **Millennial population year to year growth:**
  - 2013: 0
  - 2014: 20
  - 2015: 40
  - 2016: 60
  - 2017p: 80
  - 2018p: 100
  - 2019p: 120
  - 2020p: 140

- **Total population year to year growth:**
  - 2013: 0
  - 2014: 20
  - 2015: 40
  - 2016: 60
  - 2017p: 80
  - 2018p: 100
  - 2019p: 120
  - 2020p: 140

**Global millennial population share:** 32%

**Global total population growth rate (CAGR):** 1.2%

**Global millennial population growth rate (CAGR):** 0.6%
Accounting for ~40% of the millennial and total population, and having one of the fastest population growth rates in the region, Ethiopia could potentially provide significant FinTech opportunities in the near future.

On the other hand, Rwanda presents a relatively lower opportunity both from a population size and growth perspective.
Enabler 2: Digital Infrastructure

Mobile penetration in East Africa currently stands at 62% and is projected to grow at a CAGR of 11% to reach 95% by 2020.

The East Africa region accounts for 2% of the global mobile subscriber base; this share is however expected to flourish as mobile penetration in the region is projected to grow four times faster than the global average by 2020. Mobile technology has transformed the conventional life of people in the region. Innovations around mobile are creating new ways of doing business, both locally and internationally. The penetration of mobile enables distribution of services to segments that were earlier inaccessible.

Mobile account penetration in the region is still low at ~ 30%; albeit higher than most regions globally. The low levels indicate that transforming mobile phone users into mobile money users is a dawdling and challenging process.

Source: World bank, ITU, Intellecap Analysis
East Africa Internet penetration is projected to grow at a CAGR of 28% to reach 50% by 2020; which will be at par with the global penetration of 55%.

Although currently low at 19%, internet penetration in the region has been growing driven by a number of factors including the increase in smartphone adoption, rising middle class, increase in purchasing power, as well as ICT developments in the region. Internet penetration subsequently enables e-commerce, online payment and processing, social media activities, distribution of financial services and the collection of large amount of data resulting from these activities. All these activities give rise to FinTechs.

Source: World bank, Intellecap Analysis
With a smartphone adoption of 44%, Kenya remains far advanced than its peers in the region; adoption in the country grew by over 60% between 2014 and 2016. The decreasing price of smartphones has played a major role in increasing adoption. According to Jumia, average price of smartphones in Kenya fell by 50% from $200 in 2013 to $100 in 2016 increasing smartphone online sales by 800%.

Tanzania and Rwanda are well positioned to drive FinTech growth in the future; riding on the back of growing mobile and internet penetration. Kenya is well advanced in both internet and mobile penetration; this partly explains why most FinTech start ups are currently sprouting in Kenya. However, in a bid to catch up with Kenya, the other East African countries have been enhancing their ICT infrastructure and thus present immense opportunities in the future.
Enabler 3: Data And Technology Trends

One of the key drivers of emergence of FinTechs is alternate data which is becoming increasingly available through digitisation of businesses; this data has historically not been available to traditional lenders.

Regulatory restrictions, credit risk policy and low risk appetite of banks and telco-bank lenders currently limit the alternate data points that can be used; this is the whitespace that most lending FinTechs are exploiting. Banks rely almost exclusively on the traditional data points in advancing credit which limits lending to the bottom of the pyramid and MSMEs who lack documented income and collateral respectively. On the other hand, the telco based players largely rely on wallet transaction data while other non-telco FinTechs additionally rely on SMS crawling and social media data to generate credit scores. These FinTechs use close to 10,000 data points.
The current FinTech revolution in East Africa has mainly relied on USSD technology with MNOs having monopoly over the service. MNOs thus dictate the pricing and licensing of the service which creates a conflict of interest and to some extent stifles growth; the increasing uptake of new and emerging technologies however, possess the potential to drive growth further.

The table below presents both current and emerging technologies categorized as either customer engaging or backend.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Description</th>
<th>Current application in East Africa FS Market</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Technologies</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. **USSD**                     | Unstructured Supplementary Service Data is a global mobile service technology used to send messages between a mobile phone and an application program in the network. USSD Simplifies the user interface and engagement with a product. | • Mobile banking - Most banks have a USSD code through which customers access the mobile banking services. This is mainly used by those with feature phones  
• Telco-bank products e.g M-Pawa, M-Shwari, KCB-Mpesa, MoKash are accessed through a USSD code  
• Key FinTechs e.g. Jamii Africa, farmdrive also rely on the technology to engage with their customers. |
| 2. **Sim Tool Kit (STK)**       | STK enables the Subscriber Identity Module (SIM) to initiate actions which can be used for various value-added services.                         | • Some of the FinTech products are available on the MNOs sim tool kits e.g KCB Mpesa and M-shwari can both be accessed on Safaricom’s STK while Jamii Africa can be accessed on Vodacom’s STK. |
| 3. **Mobile Apps**              | These are a type of application software designed to run on a mobile device, such as a smartphone or tablet, to provide ease of access, without the need of a PC. | • Mobile banking - In addition to USSD, most banks have a mobile app through which banking services can be accessed. This is mainly used by those with smartphones  
• Some of the lending FinTechs e.g Branch, Tala, Shika, Saida are only accessed through mobile apps. |
<p>| 4. <strong>Biometrics</strong>               | It is a means by which a person can be uniquely identified by evaluating one or more distinguishing biological traits. It helps in reducing fraud cases. | Most banks have adopted fingerprint identification as a way of minimising fraud.                           |
| 5. <strong>Near Field Communication (NFC) and QR Codes</strong> | Also known as contactless payment, these are devices that use radio frequency to make secure effortless payments. Customers can scan the QR code at the merchant outlet and make the payment. These solutions act as virtual cards eliminating the need to carry the physical cards. | Mainly used for payment services e.g. Safaricom recently launched the Mpesa 1 tap services that uses NFC technology while KCB and Visa launched mVisa that uses QR codes to simplify payments. |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Interactive Voice Response (IVR)/Voice recognition technology</td>
<td>These are softwares that allow people to compose documents and control their computers and mobile phones with their voice. Safaricom recently launched an M-pesa service that will rely on IVR technology to help the visually impaired access mobile money services.</td>
</tr>
<tr>
<td>7. Wearables</td>
<td>These are gadgets that are worn by consumers e.g. glasses, watches which are fitted with smart sensors and make use of a web connection, usually using Bluetooth to connect wirelessly to a smartphone. To simplify the payment process, Safaricom launched the M-pesa tap 1 service which uses a wristband.</td>
</tr>
<tr>
<td>8. Internet of Things (IoT)</td>
<td>IoT uses an array of sensors to enable capturing of real time data from a wide range of sources including computing devices, mechanical and digital machines, objects, animals and people. Some FinTechs e.g. M-Kopa and Azuri technologies are leveraging IoT to offer pay as you go subscription services for solar devices. Insurance companies are currently exploring ways of using IoT to offer usage-based auto insurance i.e. customers install sensors in their cars that allows the insurance company to monitor the behaviors of the driver.</td>
</tr>
<tr>
<td>9. Big data and analytics</td>
<td>Big data analytics is the reviewing of large chunks of complex data to transform it into data that is comprehensible and useful. All lending FinTechs e.g. Tala, Branch, Shika are using big data to analyse unstructured/alternative data sources.</td>
</tr>
<tr>
<td>10. Artificial Intelligence and Automation/Robotics</td>
<td>AI constitutes advanced algorithms applied to large data sets for observing patterns, gathering insights, problem solving, predicting and real-time decision making. Some banks e.g. Co-operative Bank have developed chat bots that enables education and self service of customers. Banks are also moving to automation of some of the operational routine jobs e.g. account opening. Machine learning is used by FinTechs to predict customer behavior and subsequently generate credit scores.</td>
</tr>
<tr>
<td>11. Block chain/Distributed ledgers</td>
<td>A blockchain is a tamper-proof record of transactions distributed across all participants in a blockchain network. By adopting digital authentication and verification, the technology removes intermediaries and reduces transaction time and fraud. It enables secure and transparent transfer of cash from one institution/account to another. Used by insurance companies to develop ‘smart contract’ based insurance policy e.g. product by AIG, IBM and Standard Chartered Bank PLC. Some FinTechs e.g. Bitpesa, Bitsoko use virtual currencies that ride on blockchain technology.</td>
</tr>
<tr>
<td>12. Open platforms and API (Application Program Interface)</td>
<td>APIs refer to a set of rules that determine how software components should interact making it possible for applications to share data and take actions on one another’s behalf without requiring developers to share all of their software’s code. They provide customers with more options as third parties can create applications on open banking platforms in a plug and play manner. Some banks have opened up their APIs to software developers e.g. Equity Bank through the Eazzy API. Telcos have also started opening up their APIs to third parties.</td>
</tr>
</tbody>
</table>
Enabler 4: Gaps In The Financial Services Markets

FinTechs are increasingly playing a big role in filling the gaps left by the traditional players across the financial services markets. In this section, we have assessed the gaps through a lens of the following 4 key sub-segments as well as the corresponding value proposition presented by FinTechs:

- Lending
- Payments
- Insurance; and
- Investments
While the East Africa lending sector has been growing rapidly, the market is still largely immature with the exception of Kenya.

Total East Africa banking assets rose by 55% to USD 82 Bn in 2016 from USD 53 Bn in 2013 driven in part by the push for financial inclusion across the countries. Despite this growth, the market remains under-developed as indicated by the low advances to GDP and population ratio.

Banking assets across the countries however, grew 1.6 times faster than the regional GDP in 2016 indicating an increase in financial depth. Kenya is still the dominant commercial lending market in the region holding more than 50% of the total loans and advances in the region.

The decline in asset growth between 2015-16 is attributed to the stringent prudential measures imposed in the Kenyan banking industry that led to the collapse of 3 banks. The collapse resulted in the decline in total asset growth from 18% to 6% while loans and advances growth declined from 22% to 4%.
Despite being challenged by high NPLs and cost to income ratio, the East Africa banking sector has maintained reasonable profitability.

Regional profitability grew by 67% between 2013 and 2016. The high profitability is as a result of lack of effective regulation on interest rates that characterize most of the countries in East Africa. The introduction of an interest capping law in Kenya in 2016 means that banks will have to diversify their income streams as well as realign and control costs in order to maintain profitability.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>KENYA</th>
<th>TANZANIA</th>
<th>UGANDA</th>
<th>RWANDA</th>
<th>ETHIOPIA</th>
<th>EAST AFRICA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans &amp; advances (USD Mn)</td>
<td>21,826</td>
<td>7,015</td>
<td>3,286</td>
<td>1,671</td>
<td>9,470</td>
<td>43,268</td>
</tr>
<tr>
<td>Lending 3 Year CAGR (%)</td>
<td>16</td>
<td>16</td>
<td>11</td>
<td>19</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>Advances/Popn</td>
<td>450.4</td>
<td>126.2</td>
<td>79.2</td>
<td>140.2</td>
<td>92.5</td>
<td>166.5</td>
</tr>
<tr>
<td>Advances/GDP</td>
<td>0.31</td>
<td>0.15</td>
<td>0.14</td>
<td>0.20</td>
<td>0.13</td>
<td>0.19</td>
</tr>
<tr>
<td>Profits 3 year CAGR (%)</td>
<td>34</td>
<td>6</td>
<td>-2</td>
<td>12</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>NPLs (%)</td>
<td>8.8</td>
<td>10.3</td>
<td>10.7</td>
<td>7.0</td>
<td>3.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Cost to Income (%)</td>
<td>63</td>
<td>62</td>
<td>67</td>
<td>82</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>ROA (%)</td>
<td>4.2</td>
<td>2.1</td>
<td>2.3</td>
<td>1.7</td>
<td>1.9</td>
<td>2.4</td>
</tr>
<tr>
<td>ROE (%)</td>
<td>33.8</td>
<td>9.3</td>
<td>12.8</td>
<td>9.2</td>
<td>21</td>
<td>17.2</td>
</tr>
</tbody>
</table>

Source: CBK, BoT, BuJ, NBR, NBE
**Kenya**
Kenya is the most mature market in the region with a relatively good growth in credit and profitability. The sector is however struggling with high NPLs. In addition, the sector has experienced a number of challenges including; the collapse of 3 banks in 2015 and introduction of interest cap in 2016.

**Tanzania**
With close to 40% of the banks making losses, the overall profitability of the industry has grown at a very low level. Some of these banks have also experienced NPLs of more than 50% and thus the high overall NPL. This has limited the growth potential in the country.

**Uganda**
Despite the high potential of growth in the sector, continued deterioration in assets as well as declining industry profitability have all contributed to the slow credit growth.

**Rwanda**
Rwanda’s banking sector has experienced moderate credit growth despite the high cost to income ratio as well as declining profitability. The small size of the economy however presents a low opportunity.

**Ethiopia**
Although currently the most immature market, the sector has witnessed the fastest credit growth and has managed to maintain NPLs lower than the statutory benchmark of 5%. The country thus offers the highest opportunities for growth.
The lending market in the region is majorly driven by commercial banks, MFIs and telcos (in partnership with banks). While banks serve the high end consumer segments, and telco-bank lenders serve the micro segments; the middle segment remains largely underserved.

Success in the micro segment is driven through volumes. Telco-bank lenders in Kenya account for over 76% of total loan accounts but only 4% of the loan values indicating the low ticket size of loans advanced (~USD 25). On the other hand the banks account for 94% of the loan amounts advanced with an average of USD 2,794.

Bank share of lending has been declining due to the interest cap introduced as well as decreased performance of most tier 2 and 3 banks. MFIs on the other hand struggle with liquidity issues thus offering small ticket loans.

**Kenya share of lending by players**

![Graph showing the share of lending by players in Kenya](image)

- **Share of total loan accounts**
  - Banks: 76%
  - MFIs: 1%
  - Telco-Bank: 23%

- **Share of loans advanced**
  - Banks: 94%
  - MFIs: 4%
  - Telco-Bank: 2%

2015/16 y-o-y growth for share of loans advanced:

- Banks: 4.4%
- MFIs: 3.3%
- Telco-Bank: 68%

Source: CBK
**Existing Gaps**

Significant financial product gaps still exist across the major sectors of the economy

<table>
<thead>
<tr>
<th>Sector/Segment</th>
<th>Product Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Financing</td>
<td>Motor vehicle Equipment, Two wheeler (Boda boda*), Tractor</td>
</tr>
<tr>
<td>Unsecured Loans</td>
<td>Salary advances, scheme loans</td>
</tr>
<tr>
<td>Housing</td>
<td>House construction and improvement loans</td>
</tr>
<tr>
<td>MSME</td>
<td>Business expansion, Daily working capital (hustler)</td>
</tr>
<tr>
<td>Education</td>
<td>Student loans</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Agro processing equipment, Input financing, Agricultural trade financing, Post harvest loss technologies e.g silos</td>
</tr>
<tr>
<td>Merchant Financing</td>
<td>Mobile agents (float), Small scale online traders</td>
</tr>
<tr>
<td>Device Financing</td>
<td>Mobile phones, solar panels, Home improvement (refrigerators, TVs)</td>
</tr>
</tbody>
</table>

*Boda boda are bicycle & motorcycle taxis commonly found in East Africa*
Agriculture is the backbone of the East African economy accounting for ~30% of the GDP and employing over 65% of the population. Despite the importance, agriculture financing is less than 10% of total bank credit. In some of the countries like Tanzania, credit to the sector has been reducing which can be attributed to the high NPLs in the sector compared to other sectors. Safaricom and KCB Bank have each recently developed innovative mobile products for the sector.

**MobiGro by KCB & Mastercard Foundation**

*MobiGro* is a mobile-phone based technology solution that enables small scale farmers to access financial services such as credit, insurance and savings through their mobile phones.

**DigiFarm by Safaricom**

*DigiFarm* is a mobile platform that offers small holder farmers access to a suite of information and financial services including discounted products, best practice information, and access to credit and other financial facilities.

Accounting for 52% of the total m-pesa transactions and over 33% of Safaricom’s revenue, the hustler segment; those who require daily working capital to finance their business remains underserved with no tailor-made credit product for this segment.

In Kenya, higher education financing for public universities is mainly through Higher Education Loans Board (HELB) while secondary schools are mainly financed through bursaries. Increased enrolment in the institutions has resulted to a higher demand for financing, an obligation which is proving hard for government to fulfill e.g. HELB is currently facing a deficit of USD 68 Mn to fulfill its 2017/2018 obligations. This means more qualified students will be locked out of the financing scheme. Across the region, lack of adequate education financing (both public and private) has been cited as a major challenge with very few banks advancing commercial student loans.

One of the major challenges facing the MSME sector in the region is lack of capital. This is despite the huge potential that the sector presents. In Kenya for example there are estimated 12.6 million MSMEs accounting for 20% of GDP and 80% of employment creation. These enterprises face an annual credit gap of approximately $ 5Bn. Bank credit account for only 7% and 10% of total MSME financing in Ethiopia and Tanzania respectively, with most of the financing coming from informal sources.

With a 5% annual increase in the urban population, demand for housing in the region remains strong. Most households however still finance their housing independently, with savings or non-mortgage credit. Both the cost of the house and the high interest rates make the mortgages unaffordable for most of the households. The current average mortgage size in the region is $ 55,000 and the mortgage penetration (mortgage debt to GDP) is very low at 1.9% with Tanzania having the lowest penetration at 0.4%.

High interest rates and flat interest structures for capital assets including motor vehicles, construction equipment, industrial plant & machinery, and agricultural equipment have hindered uptake of bank loans. Identifying this challenge, asset manufactures are partnering with banks to develop specific products e.g. General Motors East Africa (GMEA) has established partnership with NIC and Cooperative Bank to finance its customers.

**Education Financing**

**Credit to the MSME sector**

**Housing Finance**

**Asset Financing**
<table>
<thead>
<tr>
<th>Revenue /Growth Proposition</th>
</tr>
</thead>
</table>

Typical gaps/challenges in traditional players

Traditional lenders remain largely concentrated in urban areas with a few in semi-urban areas. This is due to the high cost of setting up physical branches especially in rural areas.

The semi-urban and rural areas are mainly dominated by MFIs and SACCOs (Savings and Credit Co-operatives) who are not able to provide the full product range.

New Segments Targeted

Typical gaps/challenges in traditional players

Limited loan products exist for the low income segments. This is because these segments will most of the time lack collateral requirements and documented income required by formal institutions.

Cross Sell

Typical gaps/challenges in traditional players

Cross selling is branch based and therefore not cost effective due to the transactional nature of the branches.

Product innovation/customisation

Typical gaps/challenges in traditional players

Limited innovation and customization of products and variants offered by traditional players.

Customer experience/speed

Typical gaps/challenges in traditional players

Long and time consuming loan application and processing process.

Need for customers' formal documentation.

Potential FinTech value proposition

FinTechs can potentially allow lending through mobile phones thus able to the reach population even in the most rural places.

Compared to physical bank branches, FinTechs require limited/less costlier infrastructure.

P2P platforms can potentially link lenders and borrowers across geographies.

Low income segments can be targeted for lending purposes through analytics based FinTech products.

Leverage more contextualised data and customer micro segmentation to provide more targeted and next best product offers.

FinTechs can potentially offer personalised products based on customer data analytics.

Use of Internet of Things can potentially enable low risk credit for house appliances e.g. refrigerators, TVs.

FinTechs can provide aggregation of multiple financial products from different providers at a single point.
### Efficiency/Financials Proposition

<table>
<thead>
<tr>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional lenders have a high cost of customer acquisition; this is especially high for low ticket lending (MSMEs). These lenders also face high cost of serving/operating cost.</td>
<td>Digital application and processing of credit lowers the operating costs although the acquisition cost can be initially high.</td>
</tr>
</tbody>
</table>

### Risk Proposition

<table>
<thead>
<tr>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most traditional lenders have standard loan application process and requirements that don’t enable pricing based on the risk of a customer. Traditional lenders have limited ability to access and use alternate data.</td>
<td>Offers a better framework for assessment of risk and thus enabling customisation of products and prices e.g. provision of flexible tenure and varying interest rates rather than fixed rate charged across all customers. Provide alternate credit assessment parameters. Ability to analyse risk of customers help in reducing NPLs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional lenders deploy old age technology which can potentially be open to breaches.</td>
<td>FinTechs can potentially leverage new and developed technology e.g. block chain for protection of digital data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional lenders are risk averse and are bound by credit risk policy which limit credit to some customers.</td>
<td>FinTechs can understand customers based on multidimensional parameters that can reduce lending/customer risk in the longer term although currently such algorithms are untested and have not yet run their credit cycle. FinTechs improves contactability of the customers (through their mobile phones).</td>
</tr>
</tbody>
</table>
Value Proposition – Payments & Savings

The value and number of mobile transactions in East Africa have grown rapidly at a CAGR of 24% and 26% respectively. Mobile and internet payments collectively dominate the digital payments space contributing 83% of total digital payments transactions. A drive for payment system modernization, coupled with keen innovation in the payments sector across the countries, has contributed significantly to the growth in mobile payments. The region however still remains cash dominated.

While Kenya is regarded as a more mature payments economy, Tanzania is displaying faster growth, in payments migration and transaction KPIs. The rising penetration of mobile phones and the success of M-Pesa have played a key role in driving growth of mobile transactions in Kenya. One out of every 10 global mobile money transaction happen in Kenya. Kenya’s share of global mobile transactions has however, fallen from a high of 22% in 2011 to 10.3% in 2016 attributed to rise in uptake of mobile money services across the world. Despite this progress, only 2-3 out of 10 payment transactions are done without cash. By 2016, the number of mobile transactions in Tanzania had overtaken those in Kenya; with 1.3 times faster growth, the value of transaction is expected to also overtake Kenya. The impressive growth witnessed in Tanzania can be attributed to the interoperability of mobile money services launched in 2014.
Mobile payments are however mainly used by the lower income segments as illustrated by the low average size of mobile transactions.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cheques</th>
<th>Cards</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Txns (Mn)</td>
<td>19.4 (1%)</td>
<td>216.2 (12%)</td>
<td>1,526.1 (87%)</td>
</tr>
<tr>
<td>Txn Value (USD Mn)</td>
<td>26,348.5 (36%)</td>
<td>13,965.2 (19%)</td>
<td>33,555.8 (45%)</td>
</tr>
<tr>
<td>Avg. size of Txn (USD)</td>
<td>1,358.2</td>
<td>64.6</td>
<td>22.0</td>
</tr>
<tr>
<td>No. of Txns/Acct/Year</td>
<td>-</td>
<td>14.6</td>
<td>52.4</td>
</tr>
<tr>
<td>3 Year CAGR (value)</td>
<td>4.8%</td>
<td>-3.1%</td>
<td>20.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cheques</th>
<th>Cards</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Txns (Mn)</td>
<td>1.6*(0.1%)</td>
<td>72.7 (4%)</td>
<td>1,677.0 (96%)</td>
</tr>
<tr>
<td>Txn Value (USD Mn)</td>
<td>2,910.7* (8%)</td>
<td>5,249.0 (15%)</td>
<td>27,012.0 (77%)</td>
</tr>
<tr>
<td>Avg. size of Txn (USD)</td>
<td>1,819.2</td>
<td>72.2</td>
<td>16.1</td>
</tr>
<tr>
<td>No. of Txns/Acct/Year</td>
<td>-</td>
<td>24.3</td>
<td>98.5</td>
</tr>
<tr>
<td>3 Year CAGR (value)</td>
<td>-15%</td>
<td>13.1%</td>
<td>27%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cheques</th>
<th>Cards</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Txns (Mn)</td>
<td>0.3 (0.1%)</td>
<td>9.8 (5%)</td>
<td>205.7 (95%)</td>
</tr>
<tr>
<td>Txn Value (USD Mn)</td>
<td>874.0 (32%)</td>
<td>578.9 (21%)</td>
<td>1,268.9 (47%)</td>
</tr>
<tr>
<td>Avg. size of Txn (USD)</td>
<td>2,913.3</td>
<td>59.1</td>
<td>6.2</td>
</tr>
<tr>
<td>No. of Txns/Acct/Year</td>
<td>-</td>
<td>13.1</td>
<td>21.1</td>
</tr>
<tr>
<td>3 Year CAGR (value)</td>
<td>0.3%</td>
<td>18.3%</td>
<td>46.6%</td>
</tr>
</tbody>
</table>

Source: CBK, BoT, BoU, NBR
*2015 Data
Data on the parantheses represents share of cheques, cards and mobile.
Existing Gaps - Payments

Despite the advancement in payments system in the region, some gaps exist which presents opportunity for FinTechs. These gaps are brought about by technology, regulatory and cost restrictions.
**Existing Gaps - Savings**

Apart from Kenya, the deposit penetration and access to banking services in the other East Africa countries is relatively low; this provides a big opportunity for distribution of financial services through alternate mechanisms. Overall, the East Africa region lags behind the global and emerging markets average on access to banking services (in terms of number of bank branches and ATMs). Access has however been on the rise albeit at a very slow rate. Tanzania and Ethiopia have the lowest usage of financial services with only 19% and 22% of the population respectively having an account with a financial institution.

Driving savings through wallet is therefore a big opportunity in these countries.

Although access to ATMs and bank branches in Kenya is lower than the global average; banking penetration in the country is almost at par with the global rate. Kenya’s financial inclusion landscape has evolved over the years with increased uptake in financial institutions’ accounts driven by:

- Decline in barriers to entry; through removal of high minimum balances and monthly charges
- Introduction of new products targeting the SMEs
- Decline in cost of maintaining micro accounts

### Key financial access and usage statistics, 2016

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>KENYA</th>
<th>TANZANIA</th>
<th>UGANDA</th>
<th>RWANDA</th>
<th>ETHIOPIA</th>
<th>EAST AFRICA</th>
<th>GLOBAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank branches per 100,000 adults</td>
<td>5.4</td>
<td>2.5</td>
<td>2.8</td>
<td>6.2</td>
<td>3.1</td>
<td>4.1</td>
<td>12.5</td>
</tr>
<tr>
<td>ATMs per 100,000 adults</td>
<td>9.3</td>
<td>6.0</td>
<td>4.4</td>
<td>5.6</td>
<td>1.4</td>
<td>5.3</td>
<td>47.6</td>
</tr>
<tr>
<td>Account at a financial institution (%)*</td>
<td>55.2</td>
<td>19.0</td>
<td>27.8</td>
<td>38.1</td>
<td>21.8</td>
<td>32.4</td>
<td>60.7</td>
</tr>
<tr>
<td>Deposits (USD Mn)</td>
<td>26,183.9</td>
<td>8,581.1</td>
<td>4,638.8</td>
<td>1,837.9</td>
<td>16,426.4</td>
<td>57,688.1</td>
<td>-</td>
</tr>
<tr>
<td>Deposits CAGR (%)</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td>14</td>
<td>24</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>Deposits/popn</td>
<td>540.3</td>
<td>154.4</td>
<td>111.8</td>
<td>154.2</td>
<td>160.4</td>
<td>222.0</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: World Bank, CBK, BoT, BkU, NBR, NBE; *2014 data
While traditional banking channels serve the high end consumers and FinTechs serve the ultra poor segment; the middle class segment remains largely underserved.

Although the Bottom of the Pyramid (BoP) consumers represent over 80% of the East Africa households, their low income levels has been seen as a hindrance in providing products and services through the traditional brick and mortar models due to the high costs involved. Formal institutions have thus struggled to serve this segment of population, prompting shifting of their focus to the high end consumers who majorly reside in urban and peri-urban areas.

Mobile network operators (MNOs) have played a significant role in bridging this gap by designing products tailored to the needs of the BoP segment. These MNOs have enabled the BoP customers to save on their mobile wallets.

The middle income consumer (individual and businesses) however remain largely underserved with only a few players targeting this segment.

While this trend is observed across the region, the infographics presents the case of Kenya with some key statistics.

---

**Kenya banking penetration across income segments, 2016**

<table>
<thead>
<tr>
<th>Annual Household Income</th>
<th>Number of Households '000'</th>
<th>Households with bank accounts '000'</th>
<th>Banking Penetration</th>
<th>Key players</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper middle income &amp; above</td>
<td>2%</td>
<td>245</td>
<td>167</td>
<td>68%</td>
</tr>
<tr>
<td>Middle income</td>
<td>10%</td>
<td>1,127</td>
<td>439</td>
<td>39%</td>
</tr>
<tr>
<td>Low income</td>
<td>10%</td>
<td>1,137</td>
<td>284</td>
<td>26%</td>
</tr>
<tr>
<td>Poorest</td>
<td>79%</td>
<td>9,248</td>
<td>925</td>
<td>10%</td>
</tr>
</tbody>
</table>

## FinTechs’ value proposition

### Revenue Growth Proposition

<table>
<thead>
<tr>
<th>Access To New Markets</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td><strong>FinTechs are able to capture new markets and segments by facilitating payments and savings through mobile wallet.</strong></td>
</tr>
<tr>
<td>Low banking penetration consequently means low penetration of cards and cheques. Use is therefore limited especially in rural areas.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New Segments Targeted</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td><strong>FinTechs provide higher touchpoints and customer interfacing providing a high opportunity to cross sell.</strong></td>
</tr>
<tr>
<td>Lack of enough branch distribution limits savings.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cross Sell</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td><strong>FinTechs provide higher touchpoints and customer interfacing providing a high opportunity to cross sell.</strong></td>
</tr>
<tr>
<td>Cross selling is branch based and therefore not cost effective due to the transactional nature.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product innovation/customisation</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td><strong>Innovative mobile wallets that enable consumer saving as well as offer incentives to save; gamification e.g. save to win.</strong></td>
</tr>
<tr>
<td>Few innovative savings product exist.</td>
<td></td>
</tr>
<tr>
<td>Lack of motivation to save/poor savings culture.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer experience/speed</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td><strong>Ability to make instant payments to multiple parties at the convenient of your home.</strong></td>
</tr>
<tr>
<td>Long turn around times for cheque processing.</td>
<td></td>
</tr>
<tr>
<td>Need for branch visits to process payment and savings requests.</td>
<td></td>
</tr>
<tr>
<td>Long queues in the branches.</td>
<td></td>
</tr>
<tr>
<td><strong>Use of the digital technology enables development of mobile POS, QR code enabled mobile apps which reduces set up cost.</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Efficiency/Financials Proposition

<table>
<thead>
<tr>
<th>Cost of acquiring/servicing</th>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost of maintaining branches/cost of transactions</td>
<td></td>
<td>Enhanced customer journey with direct integration of systems thereby less cost to serve.</td>
</tr>
<tr>
<td>Opportunity cost for international/cross border payments.</td>
<td></td>
<td>Elimination of middleman through block chain technology/use of virtual currencies.</td>
</tr>
<tr>
<td>Risk based pricing/fees &amp; charges</td>
<td>Limited ability to offer higher interest rates on savings due to high cost structures.</td>
<td>For FinTechs, there is near zero cost of transaction for repeat customers.</td>
</tr>
<tr>
<td>Typical gaps/challenges in traditional players</td>
<td>FinTechs provide an opportunity to offer higher interest rates on savings due to the low operational costs.</td>
<td></td>
</tr>
</tbody>
</table>

### Risk Proposition

<table>
<thead>
<tr>
<th>Data security</th>
<th>Typical gaps/challenges in traditional players</th>
<th>Potential FinTech value proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional players deploy old age technology which can potentially be open to breaches</td>
<td>FinTechs enable detection and prevention of risk through development of fraud/risk algorithm as well as enable use of multiple risk/fraud detection algorithms.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of technologies like block chain has shown evidence of being more secure.</td>
<td></td>
</tr>
</tbody>
</table>
Value Proposition – Insurance

Insurance penetration across the East African countries remain lower than the global and emerging markets average

With a number of challenges facing the sector, insurance premiums have grown at a lower or same rate as the GDP thus stagnating the penetration ratio. Key challenges facing the sector include:

- **Cost:** The premiums are not affordable to the majority of the population hence presenting a challenge to the industry to lower the premiums.
- **Awareness:** The insuring public are quite ignorant on the value of insurance to their lives.
- **Product innovation:** Lack of relevant products in the market especially for the lower income group.
- **Cash flow:** Unsteady income of low income consumers.

Insurance penetration across selected countries, 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Retention ratio</th>
<th>Assets/ broker ($ Mn)</th>
<th>Assets/Insurance co ($ Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>80.5</td>
<td>25.9</td>
<td>101.7</td>
</tr>
<tr>
<td>Kenya</td>
<td>92.3</td>
<td>29.1</td>
<td>25.5</td>
</tr>
<tr>
<td>Tanzania</td>
<td>56.7</td>
<td>2.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Uganda</td>
<td>71.5</td>
<td>9.6</td>
<td>11.5</td>
</tr>
<tr>
<td>Rwanda</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Global penetration 6.1
Emerging markets penetration 3.2

Source: IBA Kenya, IBA Uganda, TIRA, NBR, Swiss Re Sigma
The sector has however, witnessed moderate growth over the past couple of years.

Gross Direct Premium growth has been driven by the rising middle class and the technological adoption in the sector, albeit slower than in lending and payments sectors.

Kenya accounts for ~50% of the total East Africa insurance premiums. The insurance potential in the country however remains unexploited. With one insurance company per 0.9 million Kenyans, insurance is more accessible than banks yet penetration remains lower than that of the banking sector. Uganda and Rwanda are fairly underdeveloped thus presenting a huge untapped market.

East Africa Insurance Premiums*

*Data excludes Ethiopia
Source: IBA Kenya, IBA Uganda, TIRA, NBR
**Existing Gaps**

Multiple insurance product gaps exist across the income segment; major gaps exist specifically for the middle and lower income segments.

### HIGH INCOME SEGMENT

- Travel insurance

### MIDDLE INCOME SEGMENT

- Travel insurance
- MSME insurance
- Mobile & household insurance
- On demand insurance
- Student/education insurance

### LOW INCOME SEGMENT

- Mobile & household insurance
- On demand insurance
- Student/education insurance
- Livestock insurance
- Crop insurance
- Post harvest loss cover
- Saving for medical redemption (health)

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### Micro health insurance

Across the East Africa region, health insurance penetration (both public and private) remains extremely low for the low income group. Insurance companies struggle to develop and distribute tailor made health products for this segment.

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### On demand insurance

Affordability of insurance has been cited as one of the major challenges hindering penetration. On demand insurance enables customers to instantaneously apply and pay for insurance coverage only when required and thus making the product affordable. The current insurance system has not fully embraced technology hindering development of such products.

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### MSME insurance

MSMEs often experience catastrophic events e.g. fires and floods. Most of these MSMEs do not hold insurance and thus experience huge losses when such events occur. This mostly affects the economy negatively given the huge role played by MSMEs. Insurance companies have not been able to come up with innovative and affordable products for this sector.

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### Agriculture insurance

With a 5% annual increase in the urban population, demand for housing in the region remains strong. Most households however still finance their housing independently, with savings or non-mortgage credit. Both the cost of the house and the high interest rates make the mortgages unaffordable for most of the households. The current average mortgage size in the region is $55,000 and the mortgage penetration (mortgage debt to GDP) is very low at 1.9% with Tanzania having the lowest penetration at 0.4%.
## FinTechs’ value proposition

### Access To New Markets

**Typical gaps/challenges in traditional players**

Insurance companies operate primarily through brokers – who find it costly to serve low income segments especially in the rural areas.

**Potential FinTech value proposition**

Using mobile technology FinTechs can be able to reach the rural population; facilitating easy registration of products as well as payment of premiums.

### New Segments Targeted

**Typical gaps/challenges in traditional players**

The lower and poor segments remain largely underserved as very few micro insurance products are offered in the region.

Significant product gaps including; crop, travel, and student insurance.

**Potential FinTech value proposition**

FinTechs are able to offer low premium micro insurance products.

### Cross Sell

**Typical gaps/challenges in traditional players**

Insurance is currently sold as a stand alone product majorly through insurance brokers whose main mandate is to only distribute insurance; this limits cross sell of other financial products

**Potential FinTech value proposition**

Ability to bundle products e.g savings, loans with insurance to enhance uptake.

Ability to offer more right time/contextualised products e.g. travel insurance.

### Product innovation/customisation

**Typical gaps/challenges in traditional players**

Standard insurance products offered across different consumer segments.

**Potential FinTech value proposition**

Using a FinTech enabled hybrid model to enhance data visualization and analytics to develop the right product to specific customers.

FinTechs can potentially offer mobile based (USSD, app) micro insurance products which are easy to apply.

Instant application of insurance through mobile enables development of on demand insurance products.

### Customer experience/speed

**Typical gaps/challenges in traditional players**

Long duration for processing of claims which discourage uptake of insurance.

Limited awareness of available insurance products and pricing of the same.

**Potential FinTech value proposition**

FinTechs enable aggregation of insurance products from different companies offering an insurance comparison platform for customers enabling them to select the most suitable and lowest cost product.

FinTechs can potentially be able to quickly process and settle claims.
<table>
<thead>
<tr>
<th>Efficiency/Financials Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of acquiring/servicing</strong></td>
</tr>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
</tr>
<tr>
<td>High insurance distribution and underwriting costs which translates to high premiums.</td>
</tr>
<tr>
<td><strong>Potential FinTech value proposition</strong></td>
</tr>
<tr>
<td>Use of mobile technology lowers the distribution and underwriting costs lowering the premium costs.</td>
</tr>
</tbody>
</table>

| **Risk based pricing/fees & charges** |
| **Typical gaps/challenges in traditional players** |
| A standard pricing strategy applied across all customers groups has limited uptake especially in the micro segments. |
| **Potential FinTech value proposition** |
| Leverage alternate data to customize premiums to customer specific risk. |
Value Proposition – Investments

High household consumption expenditure limits the savings that households can make which in turn limits investments.

Household consumption trends across the region shows that the bigger population cannot survive on their income. In Kenya for example, the consumption rate on goods and services (excluding investments) at an average of 102%. For most of the population that saves, these savings are used to cater for living expenses in times of financial difficulty. In Kenya, only 5% of the savers save to invest (mainly on land) and thus the increase in the contribution of the real estate sector to the Kenyan economy; the sector contribution to GDP grew from 6 percent in 2013 to 8.8 percent in 2016.

The emerging affluent (middle class) consumer is keen to save and invest; but minimal affordable investment options exist.

74% and 35% of these savers prefer to simply leave money in their savings and time deposit accounts respectively which limits the returns due to the low interest rates on saving accounts.

Investment in low risk wealth management vehicles e.g equity, fixed income securities, mutual and pension funds is still very low; this could be attributed to the immature investments market as well as affordability of the products for example the minimum amount of USD 500 on government bonds discourages investment.

**Stock market capitalisation % of GDP**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving Account</td>
<td>24.3%</td>
<td>28.3%</td>
<td>47.0%</td>
<td>98.6%</td>
</tr>
<tr>
<td>Time Deposits</td>
<td>16.5%</td>
<td>28.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>40%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>20%</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock/Equities</td>
<td>80%</td>
<td>67.1%</td>
<td>67.1%</td>
<td>98.6%</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>0%</td>
<td>24.3%</td>
<td>47.0%</td>
<td></td>
</tr>
<tr>
<td>Company Pension</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Income</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Standard Chartered Bank Research

**M-Akiba – A mobile government infrastructural bond**

Recognising the need for an affordable government bond, the Kenyan government recently launched M-Akiba. M-Akiba is a low cost bond (Minimum USD 30) that can be easily accessed through mobile money or through pesalink. This has seen more local investors purchase the product.
## FinTechs’ value proposition

<table>
<thead>
<tr>
<th>Revenue /Growth Proposition</th>
<th>Access To New Markets</th>
<th>New Segments Targeted</th>
<th>Cross Sell</th>
<th>Product innovation/customisation</th>
<th>Customer experience/speed</th>
<th>Cost/Efficiency/Financials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical gaps/challenges in traditional players</strong></td>
<td>Investment companies are mainly concentrated in urban areas; this limits awareness as well as access to investment products in the rural and semi-urban areas</td>
<td>High minimum investment amount especially on government bonds which locks out middle and low income earners.</td>
<td>Currently savings and loans are sold independent of investments and thus there is low motivation to invest.</td>
<td>No customisation of investment products across different customer segments</td>
<td>Manual, and long application process of obtaining investments e.g. upto 3 months to get a mortgage.</td>
<td>Cost of acquiring/servicing/collection</td>
</tr>
<tr>
<td><strong>Potential FinTech value proposition</strong></td>
<td>FinTechs enable sell of investment products through mobile phones which help access new markets</td>
<td>Ability to offer low cost investment products (e.g Mbao, pension scheme for the informal sector in Kenya) and M-Akiba (Government bond).</td>
<td>P2P platforms have the potential to offer an investment platform with high returns for local ‘small’ investors.</td>
<td>FinTechs have the potential to offer a consolidated market place for financial products including investments.</td>
<td>Mobile wallets provide a platform where one can save for specific investment and get rewarded when goals are achieved.</td>
<td>Minimal cost of acquiring investments.</td>
</tr>
</tbody>
</table>
Apart from the enablers and gaps in the Financial Services market that help create the value proposition for FinTechs to survive and flourish, ecosystem drivers is another key dimension to start-up success. While there are 3 key ecosystem drivers that are critical for FinTechs, namely regulations, support infrastructure and partnerships, the East Africa FinTech market can allude a large part of its success to partnerships among value chain players. These partnerships have mainly been centred around the telco/wallets due to the immense capabilities that they present including large customer base, marketing and distribution as well as brand credibility. The classic example is M-Shwari - Kenya’s leading lending FinTech, which was formed through a partnership between Commercial Bank of Africa and Safaricom.

What makes partnerships even more critical today is the fact that eight dimensions of capability have emerged as key towards financial services success, these being customer data, technology, distribution, risk management, customer acquisition, customer experience, underwriting, and collections. It is therefore, difficult for individual entities to bring all capabilities to play, and FinTechs complement banks and MNOs quite well.

While East Africa has experienced a rise in tech hubs and co-working spaces over the years, a huge gap exists in incubation and acceleration services which are critical in start-up growth. Start-up support infrastructure in the region therefore requires significant beefing up and regional expansion to sustain the pace of FinTech growth seen so far, be it technology focused academia or incubators/accelerators.

The East African countries have mostly adopted ‘a wait and see’ approach when it comes to regulation of FinTechs; while this has enabled innovations, it presents uncertainty and lack of sector direction which discourages investors. This challenge is however, not unique to the region as more FinTech advanced markets like India have also not established a regulatory framework for the sector. None the less, the FinTech regulatory environment in the region is expected to change significantly, as existing financial services laws are interpreted in new ways, and more importantly new laws are enacted.
FinTech ecosystem has been driven by partnerships especially between the MNOs and Banks. The success of any FinTech ecosystem emanates from a combination of factors, key among them being partnerships, support network and regulations which come together to create an integrated ecosystem. While key strides have been made to improve the FinTech ecosystem in East Africa, a lot still needs to be done. East Africa start-ups have increasingly been engaging with financial institutions, incubators and accelerators, academia and government. These engagement brings together technology, facilities, knowledge and expertise as well as experience of all the stakeholders involved.

**Partnerships:** Incumbent institutions in East Africa have witnessed significant disruption with the advent of the FinTech sector. These incumbents currently see FinTechs as competitors but overtime will see them as collaborators and will therefore, start tapping into the start-up ecosystem to incubate and create alliances with existing FinTechs. Partnerships will be instrumental in driving success of the ecosystem.

**Support network:** The East Africa tech support is concentrated in Nairobi which can be attributed to the tech success in the city that has been referred to as the ‘African Silicon Valley’. Given that start ups are mainly established by young entrepreneurs who more often than not lack experience as well as exposure, innovation hubs, incubators and accelerators play a big role in provision of funding, mentorship and connections. The support currently offered however remains generic as none of the East African countries has established a FinTech specific hub, innovator or accelerator.

**Regulations:** Government interacts with the market through policies and regulations. Across the East African countries, governments have mostly adopted ‘a wait and see’ approach when it comes to FinTechs. Going forward governments and regulators need to drop the wait and see approach and establish frameworks that provide clarity for FinTechs, investors and other stakeholders.
PARTNERSHIP DIMENSIONS

Eight dimensions of capability have emerged as key in financial services that make partnerships critical; APIs is a key challenge in East Africa. Players in the East Africa FinTech value chain are increasingly embracing partnerships to achieve scalable growth and revenue diversification; however, very few partnerships have been witnessed between incumbents and non-telco FinTechs. Banks continue to view FinTechs as competitors, rather than collaborators, a position that is expected to change in the near future. Partnerships have mainly been centred around the telco/wallets due to the immense capabilities that they present including; large customer base, marketing and distribution as well as brand credibility.

Lack of open Application Programming Interface (API) between the players however hinder the effectiveness of these partnerships. While telcos have started opening payments APIs, third parties often experience challenges when trying to access and consume the APIs. These challenges include; access to a very limited set of APIs, lack of easy to read and navigate API documentation, providers do not offer a sandbox test environment. The price for integration and API access is also too high for many FinTechs ranging between $10K – 100K.

Existing partnerships across various dimensions

- **Technology Support (Speed and Versatility)**
  - Enablers
  - Lending FinTech
  - Deep Selling Capability/ Customer Experience

- **Distribution Network**
  - MFIs/ Saccos
  - Telcos/ wallets

- **Risk Management**
  - Banks
  - Nano lenders

- **Collection Capability**
  - Insurers
  - Customer Data

Banks will develop internal capabilities to be able to deliver their services/products digitally - This can include banks establishing subsidiary FinTechs to help them navigate through the stringent regulatory requirements that govern the banks

Investment and acquisition - Banks will establish their own venture capital funds and accelerators to encourage the development of financial technology startups and to invest in or acquire new companies with relevant offerings.
# START UP LIFE CYCLE GAPS

<table>
<thead>
<tr>
<th>Ideation &amp; development</th>
<th>Pilot</th>
<th>Establishment</th>
<th>Scale/ expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>The entrepreneur has an existing business idea and is working on a proof of concept</td>
<td>Initial roll out of the idea to determine market acceptance</td>
<td>The idea has converted into an up and running business and making revenue</td>
<td>Successful running and showing clear growth with measurable traction</td>
</tr>
</tbody>
</table>

## Talent
- Inability to find the right talent has critical impact on FinTechs – there is a shortage of key skills including chief technical officers, software engineers, and data scientists across the region.
- While there is a high number of academia offering science and technology courses, the graduates released from these institutions lack the practical experience that is needed in start-ups

## Space and equipment
Start-ups lack access to space and equipment

## Incubation and mentorship
There is limited access to mentors and incubation services to help model ideas as few mentors and incubators exists. Most of the existing hubs, incubators and accelerators are also based in the major cities

<table>
<thead>
<tr>
<th>Tech hubas/Co-working spaces</th>
<th>Incubators</th>
<th>Accelerators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya – 16</td>
<td>Kenya – 12</td>
<td>Kenya – 5</td>
</tr>
<tr>
<td>Tanzania – 10</td>
<td>Tanzania – 1</td>
<td>Tanzania – 1</td>
</tr>
<tr>
<td>Others - 16</td>
<td>Others - 8</td>
<td>Others - 8</td>
</tr>
<tr>
<td>FinTechs : co-working spaces ratio 4 : 1</td>
<td>FinTechs : Incubators ratio 4 : 1</td>
<td>FinTechs : Accelerators ratio 12 : 1</td>
</tr>
</tbody>
</table>

## Knowledge of the market, business and financial management support
- Most start-ups have limited access to market intelligence and thus fail to understand the industry and geographies in which they operate.
- These start ups also struggle with business and financial management (including book keeping).

<table>
<thead>
<tr>
<th>Academia*</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya – 40</td>
<td>FinTechs : Academia ratio 2 : 1</td>
<td></td>
</tr>
<tr>
<td>Tanzania – 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others - 53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others - 8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Academia includes all the universities and colleges offering IT, science and technology courses.
HUBS, ACCELERATORS, INCUBATORS AND ACADEMIA

Hubs, incubators and accelerators

Given that start ups are mainly established by young entrepreneurs who more often than not lack experience as well as exposure, innovation hubs, incubators and accelerators play a big role in provision of support in form of funding, mentorship and connections.

The East Africa tech support is concentrated in Nairobi which can be attributed to the tech success in the city that has seen it referred to as the ‘African Silicon Valley’. The country has however seen new tech hubs sprouting outside the capital city; these decentralisation is a clear indication of rising demand for tech support in other major cities in the country.

While the region has experienced a rise in tech hubs and co-working spaces over the years, a huge gap exists in incubation and acceleration services. This gap is highest in Tanzania and Rwanda with only one local incubator and accelerator in both countries. FinTech specific support is also lacking as none of the countries has established a FinTech specific hub, innovator or accelerator; this leads to very generic services provided to start-ups. FinTechs in the region have however benefited from international acceleration programs e.g Seedstars and tech stars.

Governments are also playing a key role in ecosystem support by developing technology hubs e.g the Konza City in Kenya and Kigali Innovation City in Rwanda. The projects are however yet to be implemented.

Existing incubators and accelerators face challenges that hinder delivery of support services including; limited funding and lack of technical capacity and skills.

Academia

Academic institutions play a big role not only in building an entrepreneurial mindset in the youth but also in developing the talent needed to operate the start-ups. The tertiary education landscape in East Africa and especially in Kenya has taken a new shape as more and more universities choose to actively indulge in developing entrepreneurial skills among students through incubation centres. This is in a bid to equip students to be self-employed, thereby reducing pressure on the ever thinning employment space. Some of the notable incubators by academic institutions include; Chandaria Business and Incubation Centre by Kenyatta University and iLabAfrica by Strathmore.

Start-ups continue to face the challenge of talent as the supply of key skills including chief technical officers, software engineers, and data scientists falls significantly lower than the demand. Academic institutions in the region lag behind in the provision of the skills needed for FinTechs to thrive. While some institutions offer the science and technology courses, the learning is mostly theoretical as opposed to practical. This is one of the major reason why across East Africa foreign start-ups are thriving and scaling more than the local ones as they are able to access foreign skill set. Academic institutions need to explore ways of instilling practical experience on their students e.g. by developing internship programs with key technology companies.
Mapping of incubators and academia in East Africa

Kenya
- iHub (C, I)
- FabLab Nairobi (C)
- 88 MPH/Nairobi Garage (C, I, A)
- iLab Africa/@iBizAfrica (C, I)
- NaiLab (C, I, A)
- MLab East Africa (I)
- Growth Africa (A)
- C4D Lab (C, I, L)
- Lake Hub (C, I)
- Swahili Box (C, I)
- Metta (C)
- Gearbox (C, I)
- BitHub (C, A)
- Sote Hub (C, I)
- Village Capital (A)
- IBM Research Lab (L)
- Mt. Kenya Hub (C, I)
- Ubunifu (C)
- DeHub (C, L)
- Chandaria BiIC (C, I)

Tanzania
- Buni (C, J, L)
- EQWIP (C)
- Soma Central (C)
- STIClab (C, L)
- Dar Teknohama Business Incubator (C)
- Kinu Innovation Hub (C)
- Kili Hub (C)
- Easy Hub (C)
- Zanzibar Innovation Space (C)
- Anza (A)
- Zanzibar Technology and Business Incubator (C)

Rwanda
- Klab (C)
- Impact Hub Kigali (C)
- Think technology incubator (C, I)
- African Entrepreneur Collective (A)
- FabLab (C)

Uganda
- Outbox Hub (C, I, A)
- The Innovation Village (C)
- The space Hub (C)
- Venture Labs EA (C)
- Hive Colab (C, A)
- Mara Launchpad (C)
- Women in Technology Uganda (A)
- Design Hub Kampala (C)
- Techbuzz hub (C, I)
- @TheHub Kampala (C, I)
- Grameen Foundation AppLab (I, A)
- Growth Africa (A)
- Unreasonable East Africa (A)

Ethiopia
- Xhub (C, I)
- IceAddis (C, I)
- Addis garage (C, I)
- Growth Africa (A)

Key
- A = Accelerator
- I = Incubator
- L = Lab
- C = Co-working space/Hub
REGULATIONS

Given the dynamic nature of the FinTech sector and its overlap across various sectors, an enabling regulatory environment is important both for its growth and stability. The challenge for regulators however, remains how to encourages growth and innovation, while balancing the need for addressing systemic risk and safeguarding consumers. Across the East Africa region, the FinTech sector falls under the purview of several regulators including; the national banking regulator, insurance regulator, capital markets regulator and the telcoms regulator.

The East African countries have mostly adopted ‘a wait and see’ approach when it comes to regulation of FinTechs. Since the introduction of mobile money in Kenya and Tanzania in 2007 and 2008 respectively, mobile financial service providers have operated under no clear regulatory framework until recently when the two countries established the National Payments System regulations under which all forms of digital payment services are meant to be regulated. These regulations provide much needed certainty in the market and direction for investors as well as clear frameworks for consumer protection including consumer redress, disclosure of terms of service, maintenance of privacy and confidentiality of customer data on electronic payments.

Key FinTech specific regulations are absent in the region leading to lack of clarity on which regulator or which regulations to comply to, a challenge that is not unique to the region alone.

However, as FinTechs are working increasingly in competition against or in partnership with formal financial institutions, it is highly probable that FinTech companies are subject to some of the same regulations as the businesses they are currently disrupting. None the less, financial services regulatory bodies have recognised the changes taking place and have tried to keep pace with the rapidly changing environment in terms of technology and customer expectation. To this effect, the regulators have issued some notices/circulars that have impacted on FinTech activities; some completely undermining their business models. Kenya has taken a different approach with plans to create a regulatory sandbox that is meant to promote FinTech innovations in the capital market; this approach has also been taken by more developed countries including UK, Australia, Singapore, Hong Kong among others.

The regulatory environment surrounding FinTech products and services in East Africa will continue to change significantly, as existing laws are interpreted in new ways, and more importantly new laws are enacted.

To keep pace as well as influence the FinTech regulations, there should be a push for establishment of FinTech industry associations that would be useful in bringing all the stakeholders together – currently Uganda has formed a FinTech association. Key stakeholders including start-ups, investors and formal financial institutions also need to participate in stakeholder forums organised by the regulatory authorities as well as contribute by giving comments on draft regulations. In addition, FinTechs need to conform to best practices especially when it comes to anti-money laundering, cyber security and customer data privacy guidelines and regulations. On the other hand, governments and regulators need to drop the ‘wait and see approach’ and establish frameworks that provide clarity for FinTechs, investors and other stakeholders. In particular, governments need to consider the need for FinTech specific regulations and regulator. Where ever possible, current regulators should also enable easy access of existing regulations as well as interpretation of the same; specifically to what extent the regulations affect FinTechs.
| Interest rate capping in Kenya has seen a decline in loans and advances from banks as they become more selective of the loan customers. FinTechs provide an alternative source of funds for the unserved customers | Tanzania’s National Identification Authority (NIDA) plans to roll out a national ID system which will help in creating a central database ultimately facilitating the KYC process | Enhancement of the micro-insurance regulatory environment in the region will drive uptake of micro-insurance products provided by insurtechs |
| Proposed regulatory FinTech sandbox by the Capital Markets Authority in Kenya will allow more room for innovation within the FinTech sector | Kenya and Rwanda plan to implement interoperability of mobile money systems – this will enable sharing of infrastructure between mobile money operators ultimately increasing competition. Tanzania has already achieved interoperability | Uganda plans to enact a National Payments Systems Act which will provide clarity on the operation of electronic money insurers and payment intermediaries. Kenya and Tanzania have already put in place an NPS legislation |
| Ethiopia is in the process of drafting national laws to govern e-commerce and online payments | Most countries have amended their insurance laws to allow banks to venture into bancassurance - FinTechs are thus able to partner with banks not just for banking products (loans and savings) but also to offer insurance products |
| Central bank of Kenya public notice against the use and trade of virtual/crypto currencies e.g. bitcoin | High taxation on mobile money services (10% excise duty on sending and withdrawal charges and 18% on bank fees and commissions in the form of VAT) increasing the cost of transactions for the customers | POSITIVE DRIVERS | NEGATIVE DRIVERS |
Investment trends in FinTechs

Funding is the 3rd and probably the most important dimension of FinTech success. The FinTech investments in Africa have been growing at 87% CAGR, making it the 2nd fastest growing region in this space after Asia Pacific (APAC). The region attracted $2.2 billion in venture capital in the last 5 years (2010-2016). However, globally FinTech investing has seen a slight slowdown, especially with a drop in exits and exit ticket size dropping ~80% from 122MM to 22MM. The ramifications of the Brexit vote in the UK, the US presidential election, a perceived slowdown in China, and significant exchange rate fluctuations along with other local factors, have conspired to make investors more cautious throughout most of the year.

The biggest challenge is that only 45% of funding into FinTechs in East Africa has flown into FinTechs established in East Africa. Out of these FinTechs, 98% are established in Kenya. Hence, FinTechs set-up in other countries within the region have been completely unsuccessful in raising any funding. Only 23% of East African based FinTechs have raised multiple number of deals between 2010 and 2017. This is a big opportunity going forward.

Lending FinTechs is the biggest segment from an investment standpoint, and has attracted 70% of the funding so far. However, it is no longer the fastest growing segment with payments & savings segment emerging as the winner. Lending FinTechs have struggled to raise local debt which is core to their business model. This explains why lending FinTechs in the region have struggled to scale, and therefore failed to raise subsequent rounds.

The solution lies in investors playing an active role in enabling local debt for their FinTechs, as well as looking for more homegrown start-ups in the non Kenyan markets.
FUNDING IN FINTECHS: A GLOBAL VIEW

The FinTech space in Asia and Africa has seen exponential growth recently. This is evident by the tremendous increase in investments in FinTech companies in the two regions over the past five years, at a CAGR of 156% and 87% respectively.

The African region attracted $2.2 billion in venture funding between 2010 and 2016. This represented 0.1% of the investment to the region’s 2016 GDP signifying high potential for Africa to attract more investments as the FinTech sector in the region continues to mature.

VC funding in the U.S. for FinTech was down by 13% to $6.2 billion in 2016, much of this is attributed to poor performance of lending platforms and a contraction of investment as VCs re-examine where the money is going to be made in FinTech moving forward.

Years of hype that led to high valuations, concerns over high loan losses among online lenders and industry scandals such as Lending Club falsifying loan documentation, has resulted in a slowdown for the U.S. FinTech market, say investors. Meanwhile, younger markets – such as Africa and Asia, with a less complex regulatory regime and fewer failed startups to deter investors are attracting more investments.

European FinTech market has seen a slowdown over the past six years, at a CAGR of -2%, due to Brexit and maturity of the market in the region.

The UK alone attracted $834 million of investment in 2016, down by 38%, mainly attributed to Brexit, though a bumper venture round following the referendum delivered 8 of the top 20 deals attracting $368 million. However, in the near future, peer to peer lending market in the UK is expected to grow further following a clean bill of health by the regulator.
Total global investment in FinTech companies has grown at a rate of 19% over the past six years. However, it slowed down by 48% between 2015 and 2016.

Investment in FinTech declined globally in 2016, reflecting the significant amount of uncertainty that plagued the broader investment market. The ramifications of the Brexit vote in the UK, the US presidential election, a perceived slowdown in China, and significant exchange rate fluctuations along with other local factors, have conspired to make investors more cautious throughout most of the year. Total FinTech funding declined by almost 50%, falling to $25 billion from the $47 billion invested in 2015.

There was a big rush of investment in FinTech during 2014 and 2015 as investors globally bought into the idea of new and disruptive business models. Amidst growing geopolitical and macroeconomic uncertainty, 2016 saw the investor sentiment tide turn, with investors seeming to want more proof that innovative solutions can be scaled and commercialised.

Testifying to the level of perceived growth opportunities as well as doubling down on the more mature businesses within the space, venture investors poured no less than $13.6 billion into FinTech financings in 2016, even as the number of completed rounds slid by nearly 11% from 2015.

Global venture investment in FinTech companies (2010 — 2016)
Payment FinTechs have seen increased interest by funders recently. Investments into bitcoin and blockchain-related FinTechs has risen by a CAGR of over 200% in the past five years.

Funding of bitcoin and/or blockchain-related startups has boomed in recent years as products have matured and potentially clearer use cases have emerged. That said, the deceleration in financings by count, from 191 to 132 between 2015 and 2016, signifies that initial hype is fading and more proof of robust applications will be required by venture investors.

According to KPMG, corporates seem to be shifting spends from the direct investment blockchain to investments in the execution and development of blockchain-based production systems.

Even though venture investment in online lending FinTechs grew by 11% in the past five years, it saw a decline both in value (76%) and volume (41%) between 2015 and 2016. The downturn in funding of online lending indicates that the space is seeing consolidation with select companies already appearing as winners. In addition, it may be a period of reassessment as venture investors wait to see new strategies emerge as these winners grapple with growth challenges.

Financial management FinTechs (more so in the insurance realm) have seen significant increases in VC deal flow in terms of both value (66%) and volume (20%) in the past three years, driven by larger financings of proven businesses with demonstrated applications.

Globally, insurance industry is quickly discovering the potential impact of technological innovations. The rising popularity of smartphones, tablets and other internet-connected mobile devices is responsible for what is being called an on-demand economy, which allows people to purchase products and order services at any time. This trend has given rise to concepts such as just-in-time coverage and micro-duration insurance.

The first segment to be transformed by technology investments was health insurance, but life insurance and commercial liability insurance are now following suit. In 2015, the excitement surrounding insurance technology led to more than $2.6 billion in global investments. In the U.S. alone, health-insurance companies invested $1.2 billion in technology startups, but other segments, including commercial liability and life insurance, were responsible for the majority of tech investments.
There is a lot of funding activity amongst the FinTechs in the early stage/startup phase globally. Over the past two years, 35% of deal share went to seed/angel funding; the deal share diminished as the FinTechs increased in maturity level.

Even though there are numerous number of FinTechs in developed regions such as North America and Europe that have matured, across the globe, most FinTechs are still in their early stages of growth. A larger proportion of these FinTechs hail from the developing regions such as Asia and Africa since angel and seed funding in Europe and the Americas have declined in the past two years. For instance, aggregate angel and seed financing volume declined to 44% of all H1’17 venture volume in the Americas, the lowest percentage since 2012.

Source: CB Insights, KPMG, Intellecap Analysis
Over the last five years, exit volumes across the globe have increased at a rate of 30% but their values have increased at a lower rate of 17%. Notably, number of exits slowed down by 11% in 2016 due to macroeconomic and geopolitical uncertainty.

Slowdown in China, the UK’s vote to leave the EU, the uncertainty around the US presidential election and the fluctuations in exchange rates led to sluggish exits across all major regions in 2016, with the Americas down 25% by value, Europe, the Middle East and Africa (EMEA) down 45% by value, and Asia-Pacific down 66% by value compared to 2015.

Over the past five years, exit volumes across the globe have increased at a rate of 30% but their values have increased at a lower rate of 17%. Notably, number of exits slowed down by 11% in 2016 due to macroeconomic and geopolitical uncertainty.

The diminishing number of exit ticket sizes in the last three years is attributed to increasingly tough macroeconomic environment, particularly currency fluctuations and an upwards trend of valuation of FinTechs.

The dip in number of exits in 2016 was due to a dip in number of IPOs because of widespread macroeconomic and geopolitical uncertainty across regions.

Over the last 2 years while the exits have gone up by ~20%, the exit values have dropped by ~80% due to a sharp decline in the exit ticket sizes.

The diminishing number of exit ticket sizes in the last three years is attributed to increasingly tough macroeconomic environment, particularly currency fluctuations and an upwards trend of valuation of FinTechs.

The dip in number of exits in 2016 was due to a dip in number of IPOs because of widespread macroeconomic and geopolitical uncertainty across regions.
Investment into FinTechs in East Africa has grown at a rate of 65% over the past seven years. However, the period between 2015 and 2017 saw a slump in number of investments by 33% primarily due to slowdown of debt financing from local banks.

Lending FinTechs have seen increased interest by funders in the past three years; raising about $390 million. In order for FinTechs to grow and scale, they require a good balance of equity and debt financing. However, access to debt financing locally has been a challenge resulting in lack of exuberance by FinTechs.

According to investors, FinTechs that raised funding between 2014 and 2015 have not demonstrated enough traction and thus most of them have not been able to raise subsequent rounds of funding resulting in a slowdown in number of investments in 2016 and 2017.

55% of startup investment between 2010 and 2017 went to FinTechs established outside of East Africa.

Investors note that local FinTechs lack innovative business models and thus those established outside of the East African region tend to raise more funding than their locally-established counterparts. This is despite the fact that 58% of all the FinTechs are established within the East African region.

FinTechs established outside the region are able to raise much more funding than their local counterparts since most of them have the relevant international connections with international investors.
45% of all investments made into FinTechs in East Africa in the past seven years originated from North America with 95% of the funding coming from the U.S.

The U.S.’s venture capitalists (such as Institutional Venture Partners, IFC Venture Capital Group, Overseas Private Investment Corp, Greyrock Partners and DBL investors) and private foundations (such as Calvert Foundation and Emerson Collective) dominated the deals closed in the region in the past seven years, raising over $240 million.

Europe was also a popular source of funding among FinTechs in the past seven years, having contributed to 30% of all funding raised.

In Europe, UK PE firms dominated the investment scene in the recent past.

Venture capitalists from the rest of the European countries such as FinnFund (Finland), Kinnevik AB (Sweden), LGT Venture Philantropy (Switzerland), Freemont Management (Switzerland), responsability (Switzerland) and Aslanoba Capital (Sweden) invested more than $100 million through different mechanisms in East Africa in the past seven years.
Signifying scarcity of funders in Africa, 95% of all the funding raised by FinTechs operating in the East African region originated from only 4 investors, with corporate investors taking majority of the share, although in PAYG sector only.

- $20 million in debt financing raised by M-KOPA from Commercial Bank of Africa in 2015
- $80 million in debt financing raised by M-KOPA from Stanbic Bank in 2017
- $7 million in equity investment raised by BIMA from Mauritian-based LeapFrog Investments in 2013
- $3 million in equity investment raised by Asoko Insight from Nigerian-based Singularity Investments in 2017
FinTechs established out of the Kenyan boundaries have struggled to raise funding as opposed to their counterparts.

Kenyan-based FinTechs raised $204 million between 2010 and 2017 leading the pack of East Africa countries. The amount raised contributed to 28% of all the investments to FinTechs in the period. Most East Africa focused funds have their head office in the country. The local presence makes them feel comfortable investing in where they have a physical presence as they have local expertise in deploying capital. Kenyan entrepreneurs have a more approachable nature as opposed to the rest of the countries.

None of the Ethiopian-based FinTech companies raised funding between 2010 and 2017 whereas Rwandan FinTechs raised only USD 165K. Investors deem Rwanda’s low market potential and Ethiopia’s tough regulatory environment as the main reasons for this.

Regional investment in FinTech companies operating in East Africa; per country of establishment (2010 – 2017)

The FinTechs founded outside of East Africa have been significantly successful in raising subsequent rounds, accounting for ~62% of the total deals due to their international connections.

With an interest rate of 10-12% on USD, hedging cost component of 4-5% and 3-4% transaction cost, the fully landed cost of foreign debt capital works out to be high at 18 – 20%.

Interest rate capping in Kenya affected investments as investors wouldn’t predict its effect on the financial services sector and thus, adopted a ‘wait-and-see approach’ to ensure their returns wouldn’t be affected.

Total number of FinTech companies that have raised funding (2010 — 2017)
Funding: Segment View

Lending FinTechs have raised the largest amount of funding ($440 million) in the past seven years, contributing to 70% of total financing. However, investments have dipped in the last two years by 6%.

In the past three years, investors have adopted a ‘wait-and-see approach’ on the performance of the FinTechs before they make subsequent funding. According to investors, many lending FinTechs have not shown much traction despite raising significant amount of funding in the recent past.

Over the past three years, savings and payment segment has seen the fastest growth in value of investments at a rate of 140%. The amounts raised are smaller though ($54 million); contributing to only 9% of total investments.

According to investors, the savings and payment segment is crowded and thus they wouldn’t invest in them unless there is a clearly differentiated business model. Investments in this segment have been driven mostly by a few first-mover FinTechs operating in the multi/virtual currencies (such as BitPesa) and payment intermediaries (such as Dusu Pay Online, Flutterwave and Direct Pay Online). These have been able to raise several rounds of funding in the past seven years.

Technology segment has seen a rise in investments by value (93%) in the past three years. The investments in the segment contributed to only 7% of total investments signifying low interest by funders in this segment.

A number of investors mentioned that they wouldn’t invest in FinTech segments that they don’t have a complete understanding of. Technology segment is one such segment and thus investors tend to avoid it.

Financial management segment has slowed down in the past three years at a rate of 22%. The segment also has seen the lowest number of investments made in the past seven years contributing to only 10% of total investments made. Investment into the financial management segment was driven by only three FinTechs in the insurance management sub-segments all of which enable provision of health insurance services to the poor in the East African region. BIMA stands out in this segment having raised series C funding in 2017. It contributed to 87% of the total investment in this segment alone. MicroEnsure and Jamii Africa contributed to 12% and 1% respectively.
Lending FinTechs operating in Kenya and Tanzania have seen significant increase in funding over the past four years, at a CAGR of 135% and 63% respectively, contributing to 59 deals closed in the period. The funding drive witnessed in the recent past can be attributed to the introduction of P2P lending FinTechs such as Lendable, Tala and Branch into the market. Some of the funding also went to FinTechs that use pay-as-you-go models to drive access to off grid energy (such as SunFunder, M-KOPA, Off Grid Electric, Angaza and Azuri Technologies).

BIMA, a Swedish FinTech offering microfinance solutions in the rural Tanzania, dominated the fund raise space in the segment over the past five years.

FinTechs in the savings and payments segment (particularly mobile wallets and payment intermediaries) have been successful in raising funding in Kenya over the past six years (at a CAGR of 56%). Though the value of funding to the segment was low, as compared to lending and financial management, a large number of deals was closed by FinTechs in this segment during the review period (40). This number was only second to the FinTechs in the lending segment.

While Kenya has dominated the payments and FS enabler segment funding, Tanzania has drawn the major portion of PFM funding. However, the lending business is split between the two countries.

*In order to avoid duplication, only deals closed by FinTechs established in each of the five countries under consideration (Kenya, Uganda, Tanzania, Rwanda and Ethiopia) and/or those that operate in only one of these countries were considered in the analysis. Deals closed by FinTechs not established in the region and which cut across two or more of the countries were not included.*
Sectoral View

About 70% of all funding between 2010 and 2017 was injected into the impact sectors. These investments were made in the renewable energy sector (off-grid lighting) and the health care sector (health micro-insurance) signifying growing interest in inclusive business models by investors.

Only five FinTechs in the renewable energy sector (M-KOPA, Off Grid Electric, SunFunder, Angaza and Azuri Technologies) offering pay-as-you-go off-grid solutions have seen a spike in investor interest in the past seven years. They have raised $345 million in funding, contributing to 55% of the total investment between 2010 and 2017. BIMA, a FinTech offering micro-insurance services to the poor raised majority of funding in the health care sector (87%).

Funding Instruments

Seed funding contributed ~50% of the deals amounting to only USD 21 million in the past seven years.

Even though majority of the deals were closed by way of seed funding, the average ticket size was low ($447,000) as opposed to other instruments which had average ticket sizes of more than $3 million. The low ticket sizes show that the FinTech market is in its early stages of maturity in East Africa.
Pay-as-you-go models have been successful in raising huge value investments ($340 million) through both debt and equity. The sector has seen a good mix of debt-to-equity ratio of 1:4:1 showing that the FinTechs in the sector are gaining traction.

FinTechs in the health care sector have only raised equity indicating a greater opportunity to scale. Investors should watch this space in the near future as they will require capital injection as they grow and scale across the region.

For companies to have a sustainable business model, they need to have a good balance of debt and equity financing. Across the segments, FinTechs are struggling to raise enough debt funding.

In terms of fundraise, lending segment has debt-to-equity ratio of 1:1 whereas other lending FinTechs globally operate with a ratio of about 3:1. This signifies that lending FinTechs in East Africa have a bigger capacity to absorb more debt but are not able to. Thereby, they have not scaled as much as they could.

Savings and payments FinTechs have not yet raised any debt funding in the past seven years but are supposedly more mature than other segments signifying that either they are not growing fast enough or are at a nascent stage.

FinTechs in the FS enabler segment have a healthier proportion of debt-to-equity. This signifies that this segment is relatively more mature and on the verge of growing and scaling their service offering.
Funding mechanisms adopted by investors across segments between 2010 and 2017 ($Mn)

Lending

- Equity: 25
- Debt Financing: 195
- Others: 2
- Grant: 8
- Acquisition: 2

Savings & Payments

- Equity: 52
- Debt Financing: 1
- Others: 1

FS Enablers

- Equity: 21
- Debt Financing: 24

Financial Management

- Equity: 86

Sources: Crunchbase, Intellecap Analysis
53% of all funding into FinTechs in the East African region between 2010 and 2017 was made by venture capitalists. However, the average ticket size of funding injected by these capitalists ($6 million) was lower than the funding made by corporates ($15 million) and foundations ($10 million) in the same period. Interestingly, PE firms’ average ticket size was only $6 million.

Through corporates such as Stanbic Bank, Commercial Bank of Africa and World Bank, FinTechs have been able to raise large ticket-sized funding mostly through debt financing. Signifying maturity in the payments segment, a few Private Equity firms have invested in a number of FinTechs in the payments segment in the past seven years. Such firms include Apis Partners (Direct pay Online) and Madison Dearborn Partners (PayPal). A number of PAYG FinTechs have also attracted large PE firms’ attention in the region. Examples include Generation Investment (M-KOPA) and Helios Investment Partners (Off Grid Electric).

It was a common phenomenon for private foundations to team up with other investors in order to make larger investments into FinTechs, more so in the PAYG sub-segment.

In 2015, Calvert Foundation co-invested with three other investors to inject $45 million in debt financing to Off Grid Electric.

Emerson Collective and four other investors teamed up to close a deal worth $10.5 million in Equity financing with Angaza in 2017.

Omidyar Network and two other investors invested $7 million in Off Grid Electric through equity financing in 2014.

Trine raised $8 million in equity funding through Gullspång Invest and two other investors in 2017.

Source of FinTech investments by Investor Type (2010 — 2017)
Most of the funders provide the option of using convertible notes to FinTechs, while some of them provide debt capital as well. The convertible notes are common among the funders that focus on early stage FinTechs.

Following concerns of overvaluation earlier, the funders have now resorted to usage of convertible notes to inject capital into the FinTechs. As such, this trend is foreseen to continue going forward.

Stage Of Investment

The FinTech sector in the region is still nascent; signified by a bigger proportion of number of deals (57%) closed by smaller FinTechs in the past seven years.

Out of 88 FinTechs identified to have raised funding in the region, early stage and small FinTechs make up 65% of them. However, their ticket sizes are very small ($118K) as most of them have only raised seed, angel or grant funding.

### Size of Investment

<table>
<thead>
<tr>
<th>Size</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Stage/Startup</td>
<td>Early Stage or Startup FinTechs have annual turnovers that do not exceed $5,000 and employ (or rather engage) less than 10 people. The total assets and financial investment or the registered capital of the FinTechs do not exceed $50,000.</td>
</tr>
<tr>
<td>Small</td>
<td>Small FinTechs are those companies that have annual turnovers of between $5,000 and $50,000 and have an employee list of between 10 to 50. Registered capital of these enterprises should be between $50,000 and $250,000.</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium FinTechs are those with 51 to 100 employees and a capital investment of not more than $300,000.</td>
</tr>
<tr>
<td>Large</td>
<td>Large FinTechs are companies with more than 100 employees and a capital investment of more than $300,000.</td>
</tr>
</tbody>
</table>

Sources: UNDP, Intellecap Analysis
Due to the low ticket sizes of majority of the funds available in East Africa (average of $1 million), investment collaborations with one funder taking the lead are common.

Collaboration is meant to reduce the risk of any one funder and leverage on knowledge across the team of funders to ensure a successful deal. This strategy also alleviates competition among the funders as competition tends to be high for good investable FinTechs in the region.

Most of the funders targeted early stage and seed stage FinTechs. Only a limited number of funders target both the early stage and seed stage FinTechs signifying the nascent investment environment in the region and very few focusing on growth stage and mature stage enterprises respectively.

Exits and Returns

Globally, financial institutions seek to achieve expected ROI of about 20% through a combination of incremental returns and transformational growth opportunities.

Asians expect higher returns (25%) than their European counterparts who are more conservative, with a 14% expected ROI. African participants expect a ROI of 18% from FinTech related projects. Financial institutions aim to make the returns in many ways, including adoption of one of the many solutions brought by innovators. In future, it is expected that such innovation portfolios will see transformational growth, through adoption of core business models that better leverage new ecosystems and/or improve propositions towards end customers.
The Average Internal Rate of Return (IRR) observed across most of the funders is ~20%. In addition, a few of the funders that target early and seed stage FinTechs take a minority stake in their investments whereas, a higher proportion of the funders that target growth stage and mature stage FinTechs go for a majority stake. Very few funders insist on taking a board seat in their portfolio companies, mainly for providing technical assistance to them as and when required.

Among the FinTech focused funders, there is a preference for strategic buyouts as an exit mechanism.

Funders who demonstrated preference for strategic buyouts generally adopt a trade sale as an exit strategy. Strategic buyouts and trade sales are mostly used in the context of venture capital funded businesses and refer to the sale of companies in their early stages signifying that FinTechs in East Africa are still in their early stages of growth. Very few funders prefer exit through an IPO.

The risk and return matrix adopted by venture capital funders in the East African market bear a lot of similarity to those used by funders in developed markets (such as North America and Europe). This is not surprising as these funders expanded out of these markets into the Sub Saharan Africa.

Several funders are still in the process of iterating and testing out their matrices in the market to determine their suitability. A few of the funders who shared their matrices painted a similar picture of approach to the East African market as they do to the developed markets. The most widely accepted risk and return matrix across the investor circles was as shown in the table below.

<table>
<thead>
<tr>
<th>INVESTMENT TYPE</th>
<th>TARGET IRR%</th>
<th>TARGET NET MULTIPLE*</th>
<th>HOLD PERIOD</th>
<th>LOSS RATE/ RISK LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Stage/ Start-up FinTechs</td>
<td>30%</td>
<td>&gt;10x</td>
<td>8 Years</td>
<td>Very High (&gt;70%)</td>
</tr>
<tr>
<td>Growth/ Late Stage FinTechs</td>
<td>20%</td>
<td>3x</td>
<td>6 Years</td>
<td>Medium (~30%)</td>
</tr>
</tbody>
</table>

*Net multiple is net of 20% carry and 2% management fees for venture funds; direct investments include no carry or fees.

Sources: Crunchbase, Interviews, Intellecap Analysis

Scanning the funding ecosystem in East Africa, there is availability of seed funding (ticket sizes below $1 million) and large ticket-sized funding (ticket sizes of above $5 million). However, there are only a handful of venture funds or PE funds that can inject capital of ticket sizes between $3 million and $5 million.

Venture investors who invest in the ‘missing middle’ are not based in the African markets that they serve and thus are risk-averse.
Funding Challenges

**Debt capital gap:** FinTechs struggle to attract capital that they need to demonstrate traction. Investors want to see proof of traction but FinTechs, particularly alternative lending companies, need innovative and risk-tolerant working capital to demonstrate proof of concept.

**Lack of traction (scale) by FinTechs:** Most FinTechs that have raised funding have not demonstrated traction and thus, have not been able to raise subsequent rounds of investment.

**Lack of knowledge of contextual understanding of the local market:** Most of the decision makers are internationally based which makes it difficult for them to interpret risks on ground.

**Impact of geographical boundaries on scaling FinTechs:** Different countries across the East African region have different regulations, languages and glaring cultural differences that impede scaling of FinTech enterprises in the region.

**Human capital challenges impede fund raising initiatives:** Companies can't raise money without the right team and can't afford the right team without raising money. Investors worry that without the necessary talent, companies will not achieve the milestones that are needed to scale. However, because specific skill sets are harder to find in East Africa, FinTechs can't afford good talent without raising capital.

**The pattern recognition problem - most FinTechs don't fit what investors recognise or don't know anyone with money:** Because of the high cost of early stage due diligence in East Africa, investors often fall back on pattern recognition to find companies and make investment decisions, relying on networks and indicators like attending a prestigious university or accelerator program.

**Fluctuation of foreign currencies makes it hard for FinTechs to raise debt:** Repayment required in hard currency (USD, Euro) while revenue is earned in local currency. The local currencies in most of the East African countries have depreciated over the last 5 years making it difficult for businesses to repay. Due to fluctuation of forex, the cost of raising international/dollar debt is so high (18 – 20%) and this stifles the growth of local FinTechs as debt funding becomes largely unavailable locally.

**Lack of fund raising skills and contacts among local FinTechs especially those based outside of Kenya:** Raising capital locally (in East Africa) is a hard task as there are not many funders available in the market. To make matters worse, majority of the few funders who look at this market are not based there. As a result, FinTechs who don't have good fund raising skills and/or contacts with foreign funders find it hard to raise capital.

Sources: Village Capital: Breaking the Pattern Report, Interviews, Intellecap Analysis
Potential Mitigants

Increase access to investment by FinTechs so that they can demonstrate traction and proof of concept.
- Development of a tiered venture debt fund to increase the availability of different types of investment.
- Structuring a deal with first loss or matching-grant guarantee.
- Provide matching grants to de-risk investments.

Investors and entrepreneur support organisations should come up with initiatives meant to assist FinTechs in attracting and retaining the necessary talent that they need to grow.
- Development of an integrated talent management network.
- Provision of subsidised capital for strategic human capital hires to de-risk investments.
- Development of programs to connect world-class talent with FinTechs.

Entrepreneur support organisations should come up with initiatives meant to overcome pattern-recognition fallbacks.
- Develop a diagnostic tool to increase transparency and enable connection between investors and entrepreneurs and local entrepreneur-support organisations and investors that can provide access to networks and credibility to entrepreneur.

Regulators, investors, entrepreneur support organisations and mobile network operators should facilitate partnerships to improve access to digital-payments infrastructure and data.
- Facilitate partnerships with existing industry associations to develop programs that will help FinTechs become ‘partnership ready’.

Funders should start planning for exits from the beginning so as to ensure smooth exits.
- In East Africa, it has been observed that individual portfolio companies are not very big and therefore, many a times they are not lucrative to international buyers. To overcome this, funders should structure deals under a holding company. For instance, a fund could buy multiple restaurants in the region and put them under a holding company. Thereafter, they will exit through the holding company as this will be more appealing to the investors at the time of exit.

Sources: Village Capital: Breaking the Pattern Report, Interviews, Intellecap Analysis
## A Risk Assessment Framework For Funding In East Africa

<table>
<thead>
<tr>
<th>INVESTMENT CRITERA</th>
<th>TYPE OF RISK</th>
<th>FACTORS UNDER CONSIDERATION</th>
<th>RELEVANCE/CRITICALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUSINESS MODEL</strong></td>
<td>Product Risk</td>
<td>Development stage of product; Product life cycle; Risk of reverse engineering; Manufacturing complexities; Number of constituent technologies.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Technological Risk</td>
<td>Availability of superior technology; Unpredictable technology development; Technology life cycle; Investment requirement for assimilation; Lack of organisational capability to assimilate; Source of technology/goodwill of supplier; Level of technology (high or low).</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Market Risk</td>
<td>New users; Uncertainty in market acceptance; Market growth rate; Competitors; Substitute products; Potential entrants; Huge marketing expenditure; Disorganised sector; No assured market.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>SCALABILITY</strong></td>
<td>Implementation/Operational Risk</td>
<td>Capability of the FinTech organisation; Unavailability of skilled work-force; Lack of contacts with resource persons; Problem in arranging additional fund.</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Environmental Risk</td>
<td>Changes in Government policy; Lack of understanding about regulations; Legal barriers - piracy / patent; etc.</td>
<td>High</td>
</tr>
<tr>
<td><strong>PROFITABILITY</strong></td>
<td>Financial Risk</td>
<td>Capital market situation (e.g. lack of exit opportunities); Current leverage ratio not in par with industry average; Growth prospect of the company; Foreign exchange risk; Problem with working capital; Liquidity problem; Expected rate of return; Lack of understanding of standard financial procedures.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>OTHER CONSIDERATIONS</strong></td>
<td>Promoter Risk</td>
<td>Integrity/honesty of the entrepreneur/promoter; First generation entrepreneur; Lack of experience in related field; Lack of contacts with resource persons; Lack of experience about the market and/or technology.</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Organisational Risk</td>
<td>Motivation of employees; Employee turnover; Dependence on few workers.</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Strategy Risk</td>
<td>Losing competitiveness; Unrelated diversification.</td>
<td>Low</td>
</tr>
</tbody>
</table>

Sources: Investor Interviews, Intellecap Analysis
The Future of FinTech Landscape

The FinTech marketplace in East Africa is a culmination of several unique factors we have seen so far – enabled by strong mobile penetration and payment data, boosted by hard wired partnerships between banks and MNOs but challenged by infrastructure support, and held back slightly by cautious funding, it is a classic case of ‘what could have been’. However this is also an opportunity in disguise, as the market offers immense potential to scale, given the right infrastructure, regulatory and funding support.

In this section we review the FinTech marketplace as an outcome of the above. We have identified 11 FinTech models and 47 sub-models in the market across 4 key segments. However it is interesting to note that only 3-4 sub-models have flourished in the market, notably mobile wallets and telco based nano lending, while most of the other models are not present in a meaningful manner. The key segments covered in the section are –

- **Payments and Savings model**: comprising of digital wallets, payment intermediaries and digital currencies. While digital wallets are most successful and renowned globally, payment intermediaries have descended into the market in large numbers
- **Lending model**: this includes Direct Lending, P2P lending, and Lending aggregators
  Telco based nano lending model is a unique model offering small ticket small tenure loans supported by the MNO data, that sits on the intersection of payment and lending segments
- **Financial Management model**: covering Insuretech, Investech and PFM. Not too many players in this space, and rightfully so, given the sizeable segments in the region
- **FS Enablers**: FinTechs supporting other FinTechs and traditional FS providers. These include data driven and advanced technology backed risk, compliance and fraud detection platforms. One of the biggest opportunities in our view

The section also crystal gazes at the future of FinTech in the region, by assessing each FinTech model in terms of their core value proposition, scalability, feasibility and future outlook. The future is promising.
The financial technology industry, popularly known as the ‘FinTech’, refers to firms leveraging technology to deliver financial products/services or capabilities to customers or other financial services firms.

We have identified 11 FinTech models and 47 sub-models in the market across 4 key segments.
DIRECT LENDING

This model is similar to traditional lending except for digital interface and use of alternate data for underwriting.

The term ‘Direct Lending’ signifies lending undertaken by the companies on their own balance sheets. These FinTechs generally use mobile technology to provide working capital finance to small and medium enterprises or loans to individuals. Usually, these loan tenures are short term with an option for the borrower to choose the desired repayment terms. Funds are disbursed directly to the bank accounts or mobile wallets with a short turnaround time. The loans are collateral free and have ticket size lower than that offered by the conventional financial institutions. FinTechs leverage the alternate data to underwrite the bottom of pyramid individuals and MSMEs that have been traditionally deprived of credit. While direct lending FinTechs have grown considerably in recent times, there still exists a large untapped population with limited access to credit, thus presenting a huge market yet to be captured.

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TALA

The potential to offer hassle-free loans in real time and bag repeat business from good customers has led to Tala’s growth in record time. It offers loans ranging from $10 - $50 to individuals.

<table>
<thead>
<tr>
<th>Presence</th>
<th>Up-sell</th>
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<tbody>
<tr>
<td>Has been in operation in Kenya since 2015 and in Tanzania since 2017.</td>
<td>For the customers who repay the loans on time, are offered follow on loans at a cheaper rate.</td>
</tr>
<tr>
<td>Big data driven underwriting models. 10,000 data points consumed.</td>
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<tr>
<td>Currently serves about 1.8 million customers in Kenya who are majorly under-banked or unbanked.</td>
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<table>
<thead>
<tr>
<th>Growth</th>
<th>Outreach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently processes over 30,000 loans a month (approximately 60% of the total applications received).</td>
<td>Presence in major East African countries and planning to expand to other countries as well.</td>
</tr>
</tbody>
</table>
Model Feasibility

Value proposition

While alternate credit scoring models are innovative, their resilience is not yet tested against extended economic cycles.

New segments targeted
Low income groups, small business SMEs can be targeted via these platforms.

Product innovation/customisation
Alternate data based credit scoring models enables wide range of product offerings – Unsecured Loans, Invoice Financing, Supply Chain Financing.

Customer experience/speed
Digital loan application and management, real time decisions and disbursal for the unsecured personal / business loans, thus enhancing customer experience.

With millions of loans granted across multiple markets by consuming machine learning driven scoring models that compute the score within half a minute, Kreditech is ranked among one of the top lending FinTechs globally.

Presence
Was founded in 2012 in Germany and currently has presence in 5 countries.

PI
Machine learning driven models 20,000 data points consumed.

NS
Provides a wide range of products for different segments including: micro loans, installment loans and POS financing.

Diversity
Offers consumer loans, digital wallet and personal financial manager. The PFM tool tracks the outstanding dues and helps them repay them on time which helps the customers to manage their credit score effectively.

SAAS
API enabled platform that is consumed by partners to offer credit products.

Outreach
Expanded to major European countries.
Umati Capital is serving SMEs in the agriculture value chain which are underserved through the formal credit processes due to lack of collateral and financial records.

<table>
<thead>
<tr>
<th>Presence</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>It has been operating in Kenya since 2012.</td>
<td>Online platform and USSD technology based feature phones.</td>
</tr>
<tr>
<td><strong>FEES</strong> It offers products at lower charges compared to the informal credit sources.</td>
<td><strong>Growth</strong> Loan book growing at the rate of 2-5 times annually.</td>
</tr>
<tr>
<td><strong>NS</strong> Advances are made for the purpose of working capital against the invoice to borrower’s customers.</td>
<td><strong>NPLs</strong> Trade Insurance cover enables the company to absorb the default risk thus ensuring minimal NPAs.</td>
</tr>
</tbody>
</table>
Market Overview
The FinTechs under the direct lending models have been concentrated in Kenya with over 12 when compared to other countries. These FinTechs have focused more on the retain / individual segment with less focus on MSME segments.
Direct lending models have primarily focused their services around providing loans for individuals, with very few targeting businesses. While credit to enterprises definitely presents a huge demand-supply gap, emerging areas like education, consumer durables and asset backed financing also possess good potential.

**Major Business Models**

**Individuals**

<table>
<thead>
<tr>
<th>Personal Loans</th>
<th>Student Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platforms offering small ticket sized, unsecured loans to individuals through a digital medium.</td>
<td>FinTechs offering loans to students to support their higher education and associated fees.</td>
</tr>
<tr>
<td>Credit assessment is undertaken based on data derived from mobile money transactions.</td>
<td>Student refinancing is the most prominent product in this segment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer Durable Loans</th>
<th>Asset Backed Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platforms offering financing for the purchase of electronic products, appliances, mobile phones, etc. at the time of purchase.</td>
<td>These platforms offer loans to individuals secured by assets like two wheelers, automobiles, home, etc.</td>
</tr>
<tr>
<td>Few innovative models like pay-as-you-go have found traction in recent times.</td>
<td>These models employ alternate data sources like employment details extracted from mobile phones for verification and credit assessment.</td>
</tr>
</tbody>
</table>

**Small and medium sized enterprises**

<table>
<thead>
<tr>
<th>Revolving Credit Facility</th>
<th>Supplier Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>FinTechs offer revolving lines of credit to businesses to meet their working capital requirements.</td>
<td>FinTechs offering small suppliers (like OEMs) can avail for financing to mitigate the time gap encountered in credit of funds.</td>
</tr>
<tr>
<td>Underwriting is done online and an amount is sanctioned based on the computed credit rating.</td>
<td>In most cases, these are supported by the large corporates in order to ensure continuity of supply.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Invoice Discounting</th>
<th>Business Loans</th>
</tr>
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<tbody>
<tr>
<td>FinTechs offering loan products based on invoice discounting to businesses.</td>
<td>Platforms offering loans with shorter tenure to small businesses.</td>
</tr>
<tr>
<td>Under these models, credit is availed at a discounted rate against the invoices raised on the end customers.</td>
<td>These are broadly unsecured loans for meeting the working capital needs of the businesses.</td>
</tr>
</tbody>
</table>
Lending FinTechs are majorly providing small ticket loans for shorter tenures. There is a big opportunity for FinTechs to offer loans of higher ticket size.

**Gaps / Opportunities**

**Lesser FinTechs due to lesser funding:**
While mobile lending FinTechs are emerging at a fast pace in Kenya, it is not the same case with the other countries in the region. Lack of adequate funding to such models in these regions is one of the key hurdles faced by these FinTechs.

**Broader target segment:**
The ultra poor group and middle income individuals along with MSMEs (Micro Small and Medium Enterprises) is largely underserved by most of the FinTech lenders. This presents a huge opportunity to innovate and offer products customised to these customer segments.

**Asset backed financing:**
While an increased number of FinTechs are venturing into the unsecured lending territory, alternate credit models supporting products like two wheeler financing, auto financing, student loans, consumer durable financing, home loans are limited.

**Advanced fraud detection and operational re-engineering:**
Recently, FinTechs encountered identity and burst out frauds. While evaluating these frauds, they identified few operational glitches. FinTechs need to review and improve their processes to prevent fraud losses.

**Collection strategies:**
Contactless digital lending needs to be supplemented with effective collection strategies. Location tracking, monitoring the customer’s transactions during the repayment cycle, creating early warning triggers etc., need to be integrated into the core process.

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**Future Outlook**

**Partnerships:**
Lending FinTechs need to explore partnerships with other service providers to offer innovative products and services. For example, partnerships with the insurance companies to bundle micro insurance with the loan products especially offered to agriculture linked MSMEs and health insurance offered to the customers borrowing to address health expenses.

**Plug in more APIs:**
In order to reduce the credit risk, more and more FinTech need to leverage the APIs provided by the government and other data sources to evaluate the customers. This is currently limited to few data sources such as mobile money wallet and social networking data etc.
Matchmaking platforms that connect non-traditional lenders to borrowers as per their risk appetite. Investors mitigate the risks through portfolio diversification i.e. by funding multiple borrowers at one time.

**BORROWERS**

Individuals or businesses who are in need of capital and do not have the collateral which is generally requested by the traditional institutions, can borrow using the peer to peer lending platforms.

**APPLY FOR LOAN**

Lenders register on the platform along with various criteria like maximum loan amount, exposure (single or multiple loans), eligibility criteria (age, qualification etc.), loan tenure, interest rate etc.

Borrowers register on the platform indicating their profile and loan requirements (credit score, debt-to-income ratio, salary, employment status and credit history and other details as deemed necessary).

The P2P platforms serve as ‘matchmakers,’ pairing borrowers with investors who are willing to invest. Along with the regular credit appraisal parameters, P2P platforms usually develop proprietary algorithms that consume behavioural, transactional data and other information.

**INVEST FUNDS**

Any individual/business residing/established in the country where the models are operative and seeking long term returns can invest.

Entities generally include institutional investors.

The investors set the criteria based on their investment outlook and preferred borrowers. For example: Threshold for the credit rating.

**Technology: Matching Algorithms**

Eg: Lending Club technology - Lending Match which accounts for personal connections while matching demand to supply. It favours borrowers connected to the lender through Facebook or other social or geographical or school networks.

**Big Data based alternate lending credit scoring models.**
Model Feasibility

Value proposition

They have displayed greater feasibility and sustainability due to ability to scale, lower dependence on funding and a stable revenue model. These platforms offer a win-win proposition to both lenders (by offering better returns than the traditional saving instruments) and borrowers (by offering lower interest rates).

Access to new markets
Platforms eliminate the geographical barriers for the investors to fund borrowers.

New segments targeted
The low income individuals or small businesses not served by traditional lenders can avail loans.

Customer risk
Innovative techniques like psychometric analysis can be adopted to profile the borrowers.

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### Lending Club

- **Presence**
  - It was founded in 2007 in the US.
  - Lends to the missing middle segment which has been deprived of credit from the traditional lenders.
  - Offers cheaper rates compared to credit cards.

- **Grading**
  - Approved borrowers are rated according to their credit worthiness and placed within one of the 35 grades with differentiated pricing.

- **Investor Mix**
  - Institution investors, self managed individuals, dedicated funds. Rate of repeat investments increasing every year.

- **Outreach**
  - Loans worth over $31 billion have been originated to more than 2 million borrowers. Have served more than 180 institutions and 180,000 individual investors.

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Scalability

**Global Evidence:** P2P platforms across the globe have attained relatively larger scale than other lending models.

**Funding:** Ability to diversify, lack of any capping on the capacity to lend, higher returns etc., attract investors. However, funding may be constrained by the following factors:

- Intermittent withdrawal of funds by the investors
- Delay/indecisiveness among the investors in committing to repeat funds
- Concentration of investments targeted towards a smaller pool of borrowers (especially the high rated borrowers)

Platform’s effectiveness is dependent on ensuring that there is neither surplus nor deficit of funds at any given instance, maintaining transparent terms and conditions for all the parties involved.

Model Economics

**Revenue:** It’s a fee based revenue model, hence higher return on investment. Origination fee is charged to the borrower depending upon the rating of the borrower along with the servicing fee to the investor. Platforms that lend on their books, enjoy additional revenue through interests.

**Costs:** Marketing, data partnerships and technology infrastructure are the key cost components for this model. These costs are lower as compared to those incurred by the traditional lenders.

Business Model Elements

**Risk based pricing:** The strength of the model is dependent on its ability to leverage traditional and alternate sources of data and score the customer effectively, matching them to the risk appetite of the investor. The ability to price this risk is the key differentiating factor.

**Regulations:** Currently, there are limited regulatory guidelines impacting P2P lending in East Africa.

Market Overview

There are approximately 7 FinTechs in this category with almost 5 of them operating in Kenya. It is also observed that at least 3 of them are foreign owned.

<table>
<thead>
<tr>
<th>Borrower Type</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Business</td>
<td>4</td>
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</table>

East Africa – P2P Lending Landscape
Peer to peer lending is a nascent market in the region with a higher number of foreign players and limited locally established ones. Few platforms within this category are also supporting asset financing companies. Eg., Lendable (P2P) - Tugende (Uganda) to help them grow the customer base.

**Major Business Models**

**Traditional**
These models allow lenders to interact with the borrowers directly and own the loans while the platform functions as an intermediary.

The profile of a borrower is usually displayed on the platform where lenders can assess these profiles to determine the credit worthiness of the borrower.

The loan availed can also be financed by multiple lenders.

**Guaranteed**
These platforms provide guarantees on the principal and/or interest on loans.

These models have however, not tasted success in recent times.

**Notary**
In this model, the online platforms act as an agent to bring together creditors and borrowers, with banks or other financial institutions originating all FinTech loans.

These models are popular in those countries with stringent regulations.

**Own Lending**
In this model, platforms lend and retain loans on their own balance sheet either fully or partially.

In partial ones, the risk sharing strategy adopted by the platforms boosts the confidence of the other investors.

**Invoice Trading**
In these type of models, the platforms trade the invoices or receivables with third parties to maintain liquidity.

However, these models have not gained popularity due to the involvement of a third party and ‘trust’ based issues.
Most of the marketplace platforms in East Africa are not for profit crowd funding oriented.

<table>
<thead>
<tr>
<th>Gaps / Opportunities</th>
<th>Future Outlook</th>
</tr>
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</table>
| **Few local platforms:**  
Very few FinTechs are offering profit based peer to peer lending platforms in East Africa. Majority of these are the foreign ones. **The local FinTechs with their understanding of the local market conditions,** would be in a better position to develop a more sustainable model.  
**Partnerships:**  
Banks can partner with the platforms and provide them with the leads that do not comply with their policy norms. | **Enabling crypto-currency based lending:**  
With the funds being invested majorly by the cross border investors, P2P lending will start leveraging the immense potential of crypto-currencies to disburse and repay loans, thus providing flexibility and scale.  
**Securitisation:**  
While securitisation is currently not prevalent in East Africa, FinTech platforms may soon start securitising their portfolios by creating tradable tranches.  
**Invoice financing:**  
Globally, the P2P lending platforms are also facilitating credit to the small business borrowers against their invoice receivables directly from the investors. Eg: Finnish P2P lending service, Fellow Finance. In future, it is expected that such models shall emerge in the East African countries.  
**Growth potential:**  
The FinTechs will grow rapidly due to absence of funding constraints prevalent in the direct lending model. It can be further accelerated if the investment-options-starved East African population can start investing through these platforms. |
LENDING AGGREGATORS

Lending aggregators are a one stop online marketplace connecting interested loan borrowers with traditional and non-traditional financiers.

Lending Aggregators are platforms where the borrowers can compare the loan products offered by the different lenders to take an informed decision. The lenders can include banks, other financial institutions as well as FinTechs. The loan schemes are constantly updated on the platform to ensure that the borrowers can select on the basis of the latest information. The platforms can be accessed over the web as well as through smartphone applications.

Many platforms also allow the prospective borrowers to apply for loans to the selected lenders. These platforms serve as the lead management interface for the lenders and earn revenue on the basis of the pre-defined commissions agreed with the financial institutions. Globally, the lending aggregators have also developed pre-screening algorithms to ensure eligibility criteria as well as the quality of the applications.

Technology: APIs – To fetch the information about the loan products from the lending institutions.

Document Management - To allow the customers to upload the KYC documents. To manage these documents at their end.

Initially operating as an online market place for cars, the company identified the need to offer a one stop shop for insurance and loans.

<table>
<thead>
<tr>
<th>Presence</th>
<th>Channels</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company began operations in Kenya in 2017.</td>
<td>Available through a mobile app as well as on the company’s website.</td>
<td>Provides information to customers on the fees and charges for different loan products (asset finance including cars and mortgages) offered by the various financial institutions.</td>
</tr>
<tr>
<td>It offers a cost effective and time efficient process of comparing loan quotes while enabling customers to apply for loan directly from the platforms.</td>
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<td></td>
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<tr>
<td>The platform provides insurance comparison along with vehicle financing options.</td>
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<tr>
<td>CE</td>
<td>XS</td>
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</tbody>
</table>

CE

XS

83
Model Feasibility

Value proposition

Partnering with the financial institutions and entering into strategic deals with profit driven commission structures are the core factors that drive feasibility of these businesses.

Customer experience/speed
A single point flexibility to view, compare, choose and apply for loans offered across multiple financial service providers.

Fees and charges
Customer ability to compare and select lowest fee/pricing across multiple financial service providers.

Bank Bazaar turned profitable in March 2017. Personal loans contributed most to the reduction in cost.

Presence
India (since 2008).

XS
One-stop platform for various financial services which include loans, insurance, credit cards, fixed deposits and others.

NM
Over 70 lakh visitors per month from different locations in India.

Channels
Website & mobile applications. It also provides customer support services over WhatsApp – a messaging service.

Transition
Paperless personal finance approvals – credit card, personal loans. Cheaper proposition for the partner institutions.

Diversity
Personal finance and investment tools to increase customer engagement apart from the loan/credit card application.
Market Overview  
Across the region, lending aggregators are almost non-existent. Sokompare, the only known FinTech in this space, offers an online market place for cars as well as aggregation of insurance and financing.

<table>
<thead>
<tr>
<th>East Africa – Lending Aggregator Landscape</th>
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<tbody>
<tr>
<td><strong>Kenya</strong></td>
</tr>
<tr>
<td>Lending Aggregators</td>
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</table>
As many Lending FinTechs have entered into the East African markets, aggregators that allow comparison of different products on offer will find interest among borrowers. While there are 4 key aggregation models, 3 of these are non-existent in East Africa.

**Major Business Models**

### Multi-product Comparators
In this model, prospective loan borrowers can compare different loan products across various schemes offered by different lenders.

The platform earns a commission on either the number of leads or based on conversions.

### Single Product Comparator
While these models are similar to the multi-product platforms, they limit the comparisons to loan schemes for one product only.

For example, student refinancing loans.

### Aggregator with Pre-screening Services
In addition to offering loan comparison, these models perform lead management as well as primary underwriting for the lending partners.

Fees in such cases are higher than the plain comparison platforms.

Usually these platforms leverage credit bureau data, application details as well as other data sources to assess the applicants.

### Aggregator Offering Risk Sharing
These models differ from the Aggregator with pre-screening models by owning the risks of loan defaults of the customers partially.

Charges levied to the partners are also higher (8-10% of loan value coupled with FLDG).

Hundreds of traditional lenders, 40+ Lending FinTechs, multiple loans products and millions of borrowers provide the right foundation for aggregator models to flourish in East Africa.

### Gaps / Opportunities
**Lower count:** Despite the need for a simple and easy to use loan comparison platform, only one such platform is operational in the region.

### Future Outlook
**One stop marketplace:** We can expect more and more integration of P2P lenders, FinTechs, traditional lenders into the lending aggregator platforms, thus enabling flexibility and varied options to the customer. This will be true for particularly traditional lenders such as tier-2 and tier-3 banks, MFIs who may find it difficult to invest in holistic digital transformation themselves.
Mobile Wallets

Mobile wallets have been the backbone of the FinTech disruption in East Africa.

Mobile wallets are essentially digital versions of traditional wallets that someone would carry in their pocket. While there are many variations, usually they can hold digital information about credit and debit cards for making payments, store coupons and loyalty programs, specific information about personal identity and more. By adopting a customer centric approach, wallets are offering additional value added services to facilitate the end users. In East Africa, wallets developed by the mobile money operators have been the backbone for the financial inclusion of the underserved population.

P2P payments have been instrumental in driving uptake of mobile wallets. However, interoperability issues across the wallets is a concern.

C2B payments at small retail stores has been a differentiating feature of mobile wallets in the East African region.

Merchants are doubling up as agents providing cash in cash out services at the same point.

The success of the mobile wallet is dependent on the strength of the merchant/agent network.

Wallets can also act as a platform for all the government/utility payments.

**USSD:**
Leveraging USSD technology has led to increased uptake of the mobile wallets among the customers having feature phones.

**Contactless Payments:**
NFC, QR codes are being used to enable contactless payments. Some of these technologies enable payment even when the device is offline.
Model Feasibility

Riding on the strengths of the MNOs, these wallets have shown high scalability and sustainability. These models have proved their feasibility in East Africa than when compared to any other region across the globe.

Value proposition

<table>
<thead>
<tr>
<th>Access to new markets</th>
<th>New segments targeted</th>
<th>Cross sell</th>
</tr>
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<tbody>
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</table>

New segments targeted

Wallets have seen success in their ability to penetrate the bottom of the pyramid segments and drive financial inclusion by leveraging the USSD technology.

Customer experience/speed

Real time access to and transfer of funds and new means to pay like tap and pay etc., makes customer experience very enriching.

Data security

Wallets have successfully leveraged the telco trust and secured infrastructure to drive high volumes of payment transactions.

Tigo Pesa has the second largest market share i.e. close to 30% in Tanzania in terms of the subscriber base which accounts to over 6 million users.

Presence

<table>
<thead>
<tr>
<th>It was launched in 2010 by the Telecom provider Tigo in Tanzania.</th>
<th>Tigo Pesa is the first mobile money service to offer 7 to 9% interest p.a. on the escrow account balances. By doing so, they have been successful in attracting higher end users as well.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>It provides mobile money accounts to the unbanked population.</td>
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<tr>
<td>PI</td>
<td></td>
</tr>
<tr>
<td>The wallet can be accessed from multiple smart devices which are registered.</td>
<td></td>
</tr>
<tr>
<td>XS</td>
<td></td>
</tr>
<tr>
<td>Tigo pesa leverages mobile money to cross sell loan and insurance products.</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td></td>
</tr>
<tr>
<td>Dumapay app provides the means to accept payments via different modes both online and offline.</td>
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</tbody>
</table>
High capital investment is required for the infrastructure set up, technology, marketing and maintenance of the wallets. Thus, telecom companies with their capital backup have been in the forefront in this business while limiting the existence of the new entrants.

Wallets in East Africa have demonstrated success at the bottom of the pyramid segments, which implies high scalability due to the size of these segments.

Potential scale is constrained by increasing competition from traditional players including banks. However, dominance of the telecom companies in countries like Kenya may be restricting the entry of the non-Telco players.

Mobile Banking: Customers can make payments using the mobile banking solutions offered by the banks in most of the East African countries. The uptake of these solutions is gradually increasing and is likely to provide tough competition to mobile wallets in future.

<table>
<thead>
<tr>
<th>Feasibility Matrix</th>
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<tbody>
<tr>
<td><strong>Scalability</strong></td>
</tr>
<tr>
<td><strong>Model Economics</strong></td>
</tr>
<tr>
<td><strong>Business Model Elements</strong></td>
</tr>
<tr>
<td>High capital investment is required for the infrastructure set up, technology, marketing and maintenance of the wallets. Thus, telecom companies with their capital backup have been in the forefront in this business while limiting the existence of the new entrants.</td>
</tr>
<tr>
<td><strong>Customer Shift:</strong> Platforms like Pesalink are allowing the banks to converge by enabling the customers to transfer the money from one bank account to another, thus bypassing the wallets.</td>
</tr>
<tr>
<td><strong>Merchant Network:</strong> Success of wallets is highly dependent on the size of the merchant network and also the customer base/market share of the MNO as evident from the M-Pesa case. M-Pesa was able to achieve global acceptance as the most successful mobile wallet due to the high market share enjoyed by its parent Safaricom. Primacy of the wallet is also a function of strong merchant network, cross sell and attractive incentives like reward points.</td>
</tr>
<tr>
<td><strong>Alternate Revenue Sources:</strong> Leveraging the transaction data for cross selling financial products is instrumental to the success of the models.</td>
</tr>
<tr>
<td><strong>Privacy:</strong> While security concern is mitigated by authentication credentials required at the time of the transaction, personally identifiable data stored by merchants is prone to breach and misuse.</td>
</tr>
</tbody>
</table>
Payment wallets is the most penetrated FinTech segment in East Africa with close to 20 wallets in operation across the 5 countries.

**Market Overview**  All the major MNOs have launched the mobile wallet services. This is a very competitive space in East Africa. New start-ups are providing the customised value added services on top of the mobile wallet infrastructure provided by the MNOs.

<table>
<thead>
<tr>
<th>East Africa – Mobile Wallets Landscape</th>
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<tbody>
<tr>
<td><strong>Wallets</strong></td>
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</table>

Globally, wallets have diversified to provide digital marketplace for e-commerce/m-commerce platforms and offer financing to the merchants.

**Major Business Models**

**Mobile Wallet**

*Software backed storage of money in electronic form.*

Facilitate P2P payments along with payments to the merchants.

**Savings wallet**

Mobile wallet enabled savings account.

Wallets partner with the banks to help customers to open and manage the savings account.

**Digital Marketplace**

Mobile wallet enabled e-commerce / m-commerce platforms and vice versa.

Digital wallet acts as an enabler to e-commerce.

Also, the e-commerce platforms leverage their customer base to attract new wallet customers.

**Remittance Wallet**

Wallets that facilitate the international remittances.

They integrate with payment service facilitators like switches to enable these remittances.
Implementation of interoperability between the mobile money accounts in Kenya will transform the underlying business models of the wallets.

<table>
<thead>
<tr>
<th>Gaps / Opportunities</th>
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<tbody>
<tr>
<td><strong>Digital Marketplace</strong></td>
</tr>
<tr>
<td>The digital marketplace model of wallets which is quite evident globally, provides an opportunity for East African wallets to diversify. Few leading telco players are contemplating launching e-commerce platforms.</td>
</tr>
<tr>
<td><strong>Savings Wallet:</strong></td>
</tr>
<tr>
<td>While there are players in Tanzania that offer interests on the wallet balance, this is a clear opportunity for the wallets in the other countries as well as to increase customer engagement.</td>
</tr>
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<table>
<thead>
<tr>
<th>Future Outlook</th>
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<tbody>
<tr>
<td><strong>Forward Integration:</strong></td>
</tr>
<tr>
<td>Wallets would extend their business models to either offer or acquire or partner with the payment intermediaries (payment gateways and / or aggregators). This would allow the wallets to increase the customer base and loyalty by being the one stop solution for the payments.</td>
</tr>
<tr>
<td><strong>Contactless Payment:</strong></td>
</tr>
<tr>
<td>Higher adoption of contactless payment technology. Eg., using QR codes and mobile apps is likely to increase the usage especially among the higher end segments as witnessed in countries like Tanzania.</td>
</tr>
<tr>
<td><strong>Leverage Big Data</strong></td>
</tr>
<tr>
<td>As most of the wallets are also available via mobile applications, they can blend the transactional data with social and other data sources to gather better insights about the customers. These insights can be used to engage more with the customers and increase their loyalty and volume of the transactions.</td>
</tr>
</tbody>
</table>

### Presence

- Alipay was launched in 2004 as an escrow based payment solution offered by the Alibaba Group in China. The mobile wallet was launched in 2008.
- **NM** Alipay is already accepted by over 1 lakh retailers in 70 countries.
- **NS** Alipay has made steady progress in penetrating into the rural areas and offering wallet services to the new segments there.
- **PI** Users scan a QR-code provided by the shopkeeper to make the payment. Another way of payment is where the merchants use the advanced POS terminals to scan the QR-codes that customers generate from their phones.

Alipay provides an innovative wallet that is being used by more than 500 million users.

Alipay has over 50% market share in China in terms of mobile payment transactions.
PAYMENT INTERMEDIARIES

Payment intermediaries are FinTechs that connect traditional financial institutions, mobile wallets, merchants, and other ecosystem players digitally offering an enhanced user experience.

Payment intermediaries that offer simple and highly secure APIs at affordable costs are in demand due to their ease of integration.

The exponential growth of e-commerce and m-commerce platforms and the subsequent volumes and complexities of transactions involved have led to the emergence of these intermediaries which bring in the required robust infrastructure.

Payment intermediaries include all the entities that facilitate electronic / online collection of charges from the customer and final payment along with the settlement to the merchants for any goods and services availed. These intermediaries can provide either the entire integration services or any part thereof. For e.g. some payment service providers only perform the function of integrating the back end of the e-commerce platforms with those of the banks or financial institutions and equip them with the data processing while others provide the facility of the settlement and transfer of the funds into the merchant’s account as per the pre-defined settlement frequency. Depending upon the underlying business, FinTechs that participate in the settlement of funds for the transactions need to have lower turnaround times in order to ensure adequate liquidity for the partner merchants to run their businesses.

**APIs:** Interface and integrate with multiple systems with ease.
**Blockchain:** Many services are gradually adopting blockchain technology.
**QR code, NFC:** Contactless payment.

There is a need for the payment intermediaries to continuously innovate and provide differentiated services to sustain in this highly competitive market.

The FinTechs offering payment intermediary services have been fast emerging in East Africa with over 80 startups competing to gain a larger market share. However, these FinTechs are concentrated in Kenya where more than 50% of these FinTechs have established operations. The table indicates the spread of these FinTechs in the region.

<table>
<thead>
<tr>
<th>East Africa – Lending Aggregator Landscape</th>
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<tbody>
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<td>Kenya</td>
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</table>

By applying for a banking license, Square has taken the disruption to another level. The company posted year-on-year adjusted revenue growth of 45%. Square has beaten Wall Street estimates five quarters in a row as of the year ending (2017).

**Presence**

| PI   | Basket of payment solutions.
|      | Square Register – accept payments on smartphone or tab computer.
|      | Square Reader – card reader for multiple type of cards.
|      | Square Cash – P2P payments app which can hold cash balance.

| XS   | Square Capital – Offer financing to the merchants.
|      | Approved borrowers are rated according to their creditworthiness and put into one of 35 grades with differentiated pricing.

| NS   | Merchants with businesses ranging from groceries, spas, food trucks etc.

| NM   | Merchants with businesses ranging from groceries, spas, food trucks etc.

Square integrated with Bitcoin recently to allow some users to buy and sell it on the cash app.
Model Feasibility

While operating in a highly competitive market, these FinTechs depend on partnerships and interoperability to scale.

Value proposition

- **Customer experience / speed**: Provide better user experience by leveraging the mobile wallet platforms which have been largely driven by USSD.

- **Fees and charges**: The ability to connect to the various payment service providers and enable transactions by mitigating issues related to interoperability and high fee structures.

- **Data Security**: Enabling compliance with PCI –DSS standards while providing high end security.

---

**Direct Pay Online** services over 25,000 merchants across different sectors.

**Presence**

- **Founded in 2006 and operates in Kenya, Tanzania, Rwanda, Uganda and Ethiopia.**

- **Platform is backed by the highest security level of the credit card industry – PCI DSS level 1.**

- **DPO recently enabled mVisa on their platform. Consumers can pay merchants by scanning a QR code on a smart phone or by entering a merchant number into a feature phone. Provides the means to accept payments via different modes both online and offline. Eg: Dumapay app.**

**NS**

- Services are supported by local language in most of the countries which enable uptake from the newer segments.
Capital investment in the areas of developing technology infrastructure and developing partnerships with the merchants / other platforms are seen as the key hindrances in achieving scale. While these issues magnify in the East Africa region due to the competitive nature of the market and complex merchant networks, the opportunity to scale regionally by facilitating payments in multiple countries is quite promising.

Operating at thin margins, these FinTechs depend on scale and transaction volumes for achieving profitability. Utility payments in comparison with bulk payments are seen as more lucrative offerings due to the high frequency of usage.

Payment intermediaries that comply with high security standards safeguard the end customer from data leakage and fraud attacks. It is an integral feature of this business and a key determinant of the model’s stability.

Payment Aggregators: Ease of integration with multiple e-commerce / m-commerce platforms (powered by advanced technology like QR codes) and the fee structure are the critical business drivers. MNOs are building their capabilities to integrate directly with the third parties. Also, both the MNOs and banks are squeezing the bargaining power of the aggregators.

Fraud Identification & Prevention: Payment intermediaries have to interface with the systems of MNOs and banks to provide end to end money transfer. APIs play a crucial role to enable this integration.

Only licensed mobile payments switch equipped to deliver cross border payments in East Africa. Terrapay has led to instant and convenient transfer of money from a mobile phone at cheaper rates.

**Presence**


**NM** Partner wallet operators perform real time transfers by connecting to the switch which also facilitates clearing and settlement.

**PI** Developed standard APIs that make the platform agnostic.
Model Feasibility

While the PayInfra sub model is the largest and well penetrated segment, opportunity exists in the merchant aggregator and RemitTech markets. FinTech backed smartphone apps instead of POS machines is one area which is fast emerging in East Africa.

The payment intermediary market can be classified into 3 broad categories based on the services provided by the FinTechs as indicated below. While, there is competition, it is observed that most of these FinTechs are focused on the payment infrastructure, while areas like aggregation and remittances are under-explored.

Major Business Models

### PayInfra
Payinfra is the term coined for all the FinTechs which provide the infrastructure for making and accepting payments.

These FinTechs enable the merchants to accept payments online as well as offline. Eg., Mobile enabled POS devices.

### Merchant Aggregators
These type of FinTechs provide aggregation of different merchant accounts under one account and also support opening of these accounts on behalf of the merchants with the banks and facilitate settlement of funds.

These are beneficial for smaller business since they receive an aggregated view of all the payments which have been undertaken.

### RemitTech
RemiTech involves FinTechs that enable remittances not only within the country but also internationally.

These platforms have been built on blockchain technology thus eliminating the need of central banks and clearing houses to remit funds.

FinTechs with a cutting-edge technology backing and strategic partnerships shall emerge successfully in this already crowded market.

<table>
<thead>
<tr>
<th>Gaps/Opportunities</th>
<th>Future Outlook</th>
</tr>
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<tbody>
<tr>
<td><strong>Proactive fraud identification:</strong> Payments are prone to fraud attacks and the techniques are evolving at a fast pace. Globally, intermediaries are employing advanced technologies to detect fraud at the instance of payment initiation itself. FinTechs with these latest technologies and offering higher security features have the potential to leverage the huge opportunity.</td>
<td><strong>Merchant Financing:</strong> The payment intermediaries in future shall leverage the underlying transactional data and fund the merchants by offering debt. The merchants in turn can adopt a repayment structure based on fixed percentage of future receipts.</td>
</tr>
<tr>
<td><strong>Survival of the fittest:</strong> As there is immense competition, in future these business models are likely witness consolidation and only the ones with a strong business model and value proposition would survive.</td>
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CRYPTO CURRENCY PLATFORMS

New age platforms which allow the exchange and trading of digital currencies are instrumental in driving the uptake of crypto-currencies across the globe.

The advent of crypto currencies like Bitcoin, Ethereum etc., has also led to the need for exchange of currencies over the Internet. Those platforms which allow the exchange and trading of these digital currencies is classified under this segment. These platforms have been built on the blockchain technology which provides the decentralised network for the transactions to be executed without any intermediary. It provides secured and authenticated way for transfer of the virtual currency. As these currencies are maturing, an ecosystem comprising of various platforms leveraging them are also evolving. FinTechs are innovating in the fields of storage, exchange and payment. Globally, merchants are gradually accepting virtual currencies for purchase of goods and services.

Model Feasibility

While virtual currencies are advantageous on many fronts, there are some serious questions and areas which have to be addressed. Crypto currency platforms are directly exposed to these factors as they endanger their acceptance.

Value proposition

Access to new markets
These platforms enable transfer of virtual currencies across different countries and also the purchase of goods/services. They have eliminated the barriers for entry to new markets.

Product innovation/customisation
Virtual currencies and associated platforms have the potential to create more innovative product offerings. Eg., Paper wallets to store keys.

Fees and charges
Due to the absence of intermediaries, the transaction fees are lower than the traditional currency payment transfers.

Data security
The underlying blockchain technology provides high level of authentication and security for the exchange of the crypto currency.

World View

Regulators in different countries are concerned about the usage of crypto currencies may be used by people to evade tax, launder money or finance terrorism.

Many countries are planning to introduce their own local sovereign virtual currency.

With the high volatility witnessed in the virtual currency trading during the past few months, many financial institutions and central banks have issued warnings against trading in these currencies and have termed them as speculative bubble.
Market Overview  While there are over 10 FinTechs supporting digital currency transactions in the region, the major players like Belfrics are focused in Kenya.

<table>
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<tr>
<th></th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Others</th>
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<td>1</td>
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</table>

Major Business Models

Even the marketplace lending platforms are exploring virtual currencies as the means to lend to the borrowers.

Crypto Wallets

Crypto-currency wallets are similar to the normal digital wallets. They enable the user to store and transfer the virtual currencies. Generally, FinTechs develop mobile applications to manage these wallets. These wallets can be classified into:

Desktop wallets: This is the client version of the virtual currency that is installed on the desktop. Essentially, the private keys of the users are stored on the desktop.

Online wallets: Private keys of the users are stored over the web and can be accessed by connecting to the internet. The disadvantage associated with these wallets is that the security of the keys is bestowed with the company running the software.

Hardware wallets: These are hardware devices for holding the private keys electronically.

Paper wallets: Such wallets store the QR code images of the private and public keys of the user.

Crypto Exchanges

Exchange provides the means to buy or sell virtual currencies.

It integrates with the blockchain network to allow seamless functioning of the virtual currency wallets.
### Belfrics

**Presence**
Malaysian FinTech which launched in Kenya in 2017. It is currently operating in 8 countries.

**Exchange**
It offers white labeled solution to the institutional clients for running Bitcoin spot exchange.

**Apps**
Belfrics offers a separate application for the purpose of trading, wallet and POS respectively.

**DS**
Wallet with 2-Factor authorisation, deep freeze storage and multi signature facility.

---

### Coinbase

**Presence**
Headquartered in U.S. and supports 32 countries.

**Diversity**
Digital Wallet, Global Digital Asset Exchange (GDAX) and broker.

**PI**
Various Wallet types - web, mobile, desktop and hardware. Merchants including Dell, Expedia and Overstock accept payments in virtual currencies via NFC / QR code compatible wallets.

**DS**
Servers where the sensitive data resides are disconnected from the internet.

**NM**
38,000 merchants partnered and has more than 10 million customers across the globe.

**encrypted data is transferred to USB drives and paper backups, and distributed in safe deposit boxes vaults all over the world. Vaults that require multi people approvals for withdrawal.**

World’s largest bitcoin broker as of 2017 facilitating the buy and sell of the virtual currencies over the exchange.
TELCO BASED NANO LENDING

This business model marks the unique convergence of the banking, payments and lending using mobile technology.

With the rapid adoption of the mobile money platforms in East Africa, there was a huge growth in the financial inclusion rate across the East African countries. The mobile network operators had vast amounts of data due to the underlying mobile money transactions. Thus, the MNOs had all the essential information for constructing the credit profile of the customers. Identifying this as a huge opportunity the major banks partnered with the MNOs to offer savings and loan products (unsecured small ticket size loans). These loan ranges start from USD 1 and hence have been termed under the segment ‘Nano Lending’.

Due to the presence of wallets which serve as the means to repay and disburse loans, the partner banks incur lower costs. Generally, only the loans applications with active mobile money accounts and saving accounts with the partner bank for a period of not less than 6 months are processed. Under such partnerships while Wallets bring in alternate data points which aid credit assessment, the Telcos provide the ‘trust’ factor, marketing and distribution strengths which is required to access the lower income population. In the East African context, this model is very significant and has disrupted the lending ecosystem.

Technology:
USSD or SIM tool kit based platforms for feature phones and apps for smartphone devices.

Model Feasibility

Nano Lending Models in East Africa have grown rapidly and attained scale over the past few years.

Value proposition

<table>
<thead>
<tr>
<th>Access to new markets</th>
<th>New segments targeted</th>
<th>Cross sell</th>
</tr>
</thead>
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<td>Product innovation/customisation</td>
<td>Customer experience/speed</td>
<td>Cost of acquiring/servicing</td>
</tr>
<tr>
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</table>

New segments targeted
This model has enabled lenders to access the lowest income segment, thus opening up a huge market.

Cross sell
Up-sell loans to repeat customers, cross sell insurance, other loan products, savings products and also value added services.

Customer experience/speed
Loans can be availed in real time using USSD as well as mobile apps.

Cost of acquiring/servicing
Lower cost of acquiring customers as they can be sourced through direct marketing also through the phone menu itself.
Partnership of the Telecom companies and the banks results in availability of the funds to lend, lower cost of funds compared to direct lending cushion against adverse risks due to bank’s provisioning norms:
- Bank’s provisioning norms provide cushion against adverse risks
- Backbone is the transactional data of the mobile wallets which is growing rapidly.

Due to the marketing and distribution might coupled with the huge customer base of the Telcos, these models have been able to scale significantly. Therefore scale, while being restricted to the country boundaries of MNO operations, is also a function of the MNO market share as evidenced in the M-Pesa success.

Nano lending models typically enjoy a 5-8% fee based revenue charged to the customer on a one time basis which translates to 90-240% APR for short tenure loans. Given the high cost of funds for the banks in this partnership model, the construct is extremely profitable despite high NPAs.

Saving Product: Wherever Nano lending models have to offer a savings based product to the customer, which creates greater engagement and further reduces the cost of funds, the model is likely to be more successful.
**Market Overview**  As these services allow the customers to access a wide range of banking and lending services from anywhere and at any time, they offer the promise to operate much better than a bank. Currently only the few top banks have partnered with the mobile network operators to provide these loans. Many more banks are planning to replicate the products similar to M-Shwari by partnering with the mobile network operators.

Initially, when M-Shwari was introduced, the uptake of the services was not exceptionally high. This was majorly due to the lack of awareness of such services within the customers. However, over a period of time, there has been phenomenal growth in the customers opting for the Nano lending. Also, these models witness a high proportion of repeat customers which indicates high degree of stickiness and preference for these loans. Based on these factors, it is highly likely that more banks would partner with the MNOs to offer these products, marking the entry of new players in the market.

Currently, there are approximately 6 FinTechs in the regions, with majority of them having operations primarily in Kenya.

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</table>

**Gaps/Opportunities**

**Untapped Segment:**
While, this model has penetrated the lower segments of the population, there is huge potential to move up the value chain by targeting the middle income and the MSME lending segment.

**Future Outlook**

**Banks forward integration:**
Banks will look to develop internal capabilities to deliver their services/products through their own digital platforms. Many banks are testing the alternate data based underwriting models. Few banks are also partnering with technology service providers to offer such products. Such initiatives may offer direct competition to the Nano lending products.

**FinTech Bank:**
This would enable FinTechs to offer savings products in addition to the lending and will enable them to attract low cost funds from the depositors. This business model is similar to the Nano lending model which is layered on the Savings product. Hence, this space has to be closely monitored by the Nano lending FinTechs.
Presence
Launched in Kenya in 2014
Finserve Africa Limited (trading as Equitel) is a mobile virtual network operator (MVNO) in Kenya. It is a wholly owned subsidiary of Equity Group Holdings Limited and is using the Airtel Kenya network as its carrier. Equitel was launched in May 2014.

PI
Equitel has been targeting the low income customers who can avail the unsecured small ticket size loans for various purposes without providing any collateral.

For Feature phones:
The mobile banking platform is based on the new SIM Card Technology. The service provider offers both the normal SIM card and the thin SIM card which turns the single-SIM phone into a dual-SIM one. The SIM cards are available to all customers of Equity Bank. The option to avail this loan is available in the phone menu. Equitel platform is exclusively for Equity bank, thus it has a marked advantage as compared to other banks which leverage MNO platforms like M-Pesa, Orange Money etc. to disburse the loans.

For Smartphones:
Eazzy loans can also be availed using the Equity Banking app for Equitel line customers.

It offers two loans – Eazzy Loan which is bullet loan without any installment and Eazzy Loan Plus which can be repaid in installments.

Eligibility
For applying for the loan, customer must have an active Equity Bank account for a minimum period of 6 months and an active Equitel line.

As of September 2017, Equitel bank had issued loans worth $57 billion through its Equitel platform.
**INSURTECH**

**InsureTech is trying to penetrate a challenging market by eliminating the high cost conventional infrastructure associated with insurance.** Technology driven service offerings built on a customer centric approach has led to the emergence of the new age insurance providers.

In spite of exposure to health hazards and adverse climatic conditions being high, the insurance penetration is found to be at a low level in the East African region. By innovating in the areas of design, distribution and management of the insurance products, FinTechs are aiming to penetrate this huge market by targeting the bottom of the pyramid segment. By focusing on customer’s needs, preferences, appetite, associated value chains and lifestyles to design micro-insurance products, these FinTechs have reduced the dependency on the high cost conventional infrastructure and enabled them to offer more affordable products.

**Technology**
- **Internet of things:** Smart sensors, devices that provide the data on regular basis are being to validate the claims.
- **USSD:** Premium payment, administration and claims registration can be done by customers with feature phones using USSD.
- **Big Data Analytics:** Data driven insurance underwriting models are being leveraged.
- **Blockchain:** Distributed ledger accounting based on blockchain technology is enabling cost efficient insurance transactions.

**Model Feasibility**

*While InsureTech offers a strong value proposition, the initial pain to scale and sustain can be fairly high.* In East Africa, partnerships with MNOs and TSPs have drastically reduced the cost for the InsurTech companies.

**Value proposition**

<table>
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<td><strong>Data security</strong></td>
<td><strong>Customer risk</strong></td>
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</table>

**New segments targeted**
- Micro insurance products are reaching out to the needy low income groups with affordable premiums.

**Product innovation/customisation**
- Products like pay-as-you-go, index linked insurance products are extremely innovative and cater directly to the customer’s needs.

**Customer experience/speed**
- Policies can be purchased or claims can be settled without visiting any branch.

**Fees and charges**
- The ability to price premiums based on micro segment level risk assessment.
**Penetration opportunity:** As the Insurtech companies have leveraged the mobile money infrastructure which has witnessed increased uptake over the last decade in East Africa, these FinTechs have the potential to penetrate deeper and at a faster pace compared to the traditional models.

**Bundled packages:** Bundling of insurance products with core products by establishing strategic partnerships is key to be sustainable and is best suited for a digital model. For example, insurance blended into airtime, input seeds price inclusive of insurance premium.

**Margins:** Cost pressures, regulatory norms, etc. impact the margins of the traditional insurance brokers and companies. InsurTech companies offering direct micro insurance products digitally to the market, encompass the potential solution to these issues. Conventionally, marketing costs are on the higher side for such models. However, if strategic partnerships are established, the such costs can be kept to the optimal level. But in the case of East Africa, the cost of strategic partnerships with MNOs for data, distribution and marketing have proved to be high.

**Scalability**

**Model Economics**

**Business Model Elements**

---

**Market Overview** While Kenya has 9+ Insurtechs, there is greater opportunity for such players in other parts of East Africa. Some of the most successful Insurtechs in the region however, such as BIMA etc., are from outside Kenya.

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With 14+ FinTechs already operating in this space and growing, InsurTech will be an area to watch out for in future.
M-Insurance and Index based insurance models are prevalent not only in Kenya but also in other East African countries. Health, life, crop and livestock insurance account for more than 99% of the Insurtech models. However, insurance aggregators have integrated with other insurance products to offer a wider range of offerings.

**Major Business Models**

<table>
<thead>
<tr>
<th>m-Insurance</th>
<th>On Demand</th>
<th>Index based</th>
</tr>
</thead>
<tbody>
<tr>
<td>FinTechs offering insurance through or with some level of assistance by mobile network operators (MNO).</td>
<td>In this model, insurance cover is provided on-demand when protection is required.</td>
<td>Index based insurance is designed to pay out to the customer automatically in the event of a loss.</td>
</tr>
<tr>
<td>Products offered include primarily health and life insurance products.</td>
<td>The insurance cover lasts for a set period. This is very attractive to the low income groups who have limited assets and have risk exposure for certain time intervals and not throughout the year.</td>
<td>The product tracks and analyzes a data driven index. E.g., insufficient rainfall levels that will result in loss of harvest.</td>
</tr>
<tr>
<td>The MNO provides customer, customer data, distribution and marketing support along with the most important ‘trust’ factor.</td>
<td>Eg: Insurance for devices like camera, drones etc that can be opted out when not required, Pay as you go insurance for auto drivers who do not drive frequently.</td>
<td>As the insurance is index linked, it is a paradigm shift from the traditional way of processing claims which is undertaken on a case to case basis.</td>
</tr>
</tbody>
</table>

**Aggregators**

Aggregators are the digital platforms which enable the users to compare the products offered by different companies.

They act as digital insurance brokers, by providing an unbiased view on the choice of the policy unlike traditional insurance broking.

The key advantage is that these models provide a price-to-premium comparison to the customer.

**P2P**

A group of associated or like-minded individuals create a common pool of their premiums.

These funds insure each individual in the event of pre-defined risks.

Pay as you go, Insurance Intermediaries and Blockchain backed Insurance FinTechs are limited in numbers in East Africa.

**Gaps / Opportunities**

Unexplored models:
Globally, the number of FinTechs offering pay-as-you-go insurance, wearable insurance and platforms for comparing the various products is in abundance while in East Africa, very few FinTechs have ventured in this space.

Aggregator models:
More insurance aggregators would emerge in future and they are likely to scale.

Replicate successful pilots:
Index linked insurances (launched on pilot scale) especially for agriculture and livestock value chains have shown good results and lower default rates. This should encourage more players to explore this segment.

**Future Outlook**

Blockchain based innovative models:
Blockchain will play a key role in the product design. There are early stage start-ups globally, leveraging this technology in the areas of identity management and verification i.e. KYC, claims settlement using smart contracts etc. Such models have good potential to emerge in East Africa as well.

IoT, Biometrics driven models:
As the IOT enabled devices evolve further, more refined models assessing these data sources would emerge in East Africa.

Awareness driven schemes:
Products like ‘Loyalty Insurance’ offered by companies like MicroEnsure in partnership with the MNOs (wherein the premium is borne by the MNO with no additional charges to the consumer) are crucial to increase the awareness level among the consumers. Companies that partner with insurance awareness programs or develop innovative products that address the awareness issues are likely to demonstrate sustainable growth.
BIMA has over 30 million subscribers across the globe. It enables digital registration of the customer in less than 2 minutes and pays out the claims to the mobile wallets within 72 hours.

### Presence
Operating in 14 countries including Uganda.

**Discrete packages:**
Life, personal accident and hospitalization insurance are available in either 3, 6 or 12 month packages and can be renewed at the end of the time period.
Eg., BIMA Family Life Protect product sold in Uganda.

**USSD channel:**
BIMA has developed a mobile insurance platform that can be accessed by using the USSD channel on the feature phones.

**Prepaid insurance:** Prepaid insurance product targeted to the highly untapped Ugandan customers is first of its kind in East Africa.

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**Lemonade**
Lemonade has raised the eyebrows by covering more than 90,000 policies worth more than $10 billion within few years.

### Presence
Licensed insurance carrier based out of United States offering homeowners and renters insurance, founded in 2015

**PI**
Mobile apps are embedded with Chat bots which are highly interactive and manage the queries.
Developed APIs that can be seamlessly integrated with commerce websites, finance advisor apps, property management companies, IoT etc.

The unclaimed left over amount is paid to support social causes of the choice of the customer at the end of the year.

### FEES
Flat fee of 20% is charged out of the monthly payments which is used to settle the claims. This takes away the traditional incentive for an insurer to deny claims to save cash.

---

**Metromile**
The FinTech estimates that customers who drive less than 10,000 miles per year can benefit immensely by using their products.

### Presence
Founded in United States in 2011.

**FEES**
Cheaper:
Low monthly base rate plus a few cents per mile when he/she drives.

**PI**
Pay per mile is an innovative product that is disrupting the auto insurance industry.
IOT – Metromile Plus device plugged in the car to count the miles.

**CE**
Mobile app to:
- Track the trips
- Monitor the car’s health
- Identify where the car is parked.

Metromile computes the base rate using the factors like age, vehicle type and driver history to compute the rate.
INVESTMENT MANAGEMENT

It is estimated that by 2020, the assets to be managed by robots (digitally) would grow by over 60% (CAGR) across the globe.¹

Robo-advisory has emerged as the leading investment management FinTech platform which is essentially an automated service that provides advice to the customer on managing investments with the help of algorithms. Throughout the process, minimal human intervention is required. The advent of these robo-advisors has transformed the financial services industry in a big way. Currently, specialized robo-advisors dedicated to specific service type (for example tax, financial planning, pension funds etc.) exist across the globe.

These robo-advisors are replicating most of the activities performed by the wealth managers by leveraging technology, resulting in lower costs. These FinTechs have also developed tools for the customers to monitor their investments which in turn increases visibility and transparency. These robo-advisors can offer both passive as well as active management of the funds.

Technology
Psychometric Analysis: Some firms have developed tools that use psychometric analysis for profiling the customers.

APIs: To integrate with multiple external systems to fetch the data for analysis.

Big Data Analytics: Data driven analysis to profile the customers.

¹ “The Coming Waves of Robo Adoption” (A.T. Kearney, June 18, 2015)
Model Feasibility

Robo advisory models have witnessed higher adoption from the first time investors globally. These are positive signs for the East African countries.

Value proposition

- **Access to new markets**
- **New segments targeted**
- **Cross sell**
- **Product innovation/customisation**
- **Customer experience/speed**
- **Cost of acquiring/servicing**
- **Fees and charges**
- **Data security**
- **Customer risk**

### New segments targeted

Robo-advisors reduce the manual costs, thereby offering services at affordable rates. Thus, the services are not limited to the high network individuals but have extended to the mass affluent segments as well.

### Product innovation/customisation

Hybrid models based on algorithms that leverage analytics combined with traditional RM based insights have started yielding better returns to the customers.

### Cost of acquiring/servicing

Robo advisors services are less expensive as compared to the traditional investment management services.

---

**Model Feasibility Matrix**

<table>
<thead>
<tr>
<th>Scalability</th>
<th>Model Economics</th>
<th>Business Model Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New investors</strong>: Due to the digital architecture and limited manual interventions, robo-advisors have been able to function at lower costs resulting into lower charges for the customer. This can help in attracting a significant number of first time investors, thus demonstrating the scalability potential. However, these models have limitations in regions with smaller market size such as East Africa.</td>
<td>Profitability is a function of the existing customer base as new customer digital acquisition can be quite expensive. Therefore partnerships with Investment Management focused banks and companies is critical for early success.</td>
<td><strong>Blended models</strong>: Globally, most of the investment management FinTechs have adopted a blend of robo advisory and manual fund management approach. Most of them are running pilots on the robo advisors and gradually shifting a higher number portfolios to them. This model provides a combination of efficiency, experience and ‘trust’.</td>
</tr>
</tbody>
</table>
In East Africa, prominent investment management FinTechs have either not launched or matured significantly. However, this is in context of the fact that the investment management market in East Africa is unexplored.

Globally, blended models are more common and prominent wherein robo-advisors are involved to a limited extent in the investment advisory services.

**Market Overview**
Investment management services have not matured enough in most of the East African countries. Limited number of FinTechs have ventured into these areas. With the Eastern African economies growing at a fast pace and a growing number of individuals shifting up in income levels, there is a sizeable opportunity for these next generation FinTechs to capitalise on their disposable income by offering investment services at affordable costs. Robo-advisors with local context, can play a vital role in educating the masses about the various means of investment along with driving investments. However, such models require support from the policy makers to create and drive investment instruments that are volume centric and value centric. Such initiatives may have an overall positive impact on the economy.

**Major Business Models**

**Robo Advisors**
End to end investment management is undertaken by the robo-advisors without any manual intervention.

Along with investing on behalf of the customers, the robo-advisors rebalance the portfolio regularly.

**Blended**
Blended models involve both robo-advisors as well as asset management individuals to provide investment solutions to the customer.

In some instances, the algorithms develop the investment profile of the customers and generate the first level portfolio allocation for them. Fund managers, then provide manual support to either revise these portfolios and to interact with the investors.

**Personal Financial Management + Investment Management**
Generally such models are initiated by engaging with the user to help manage finances and then gradually set their personal financial goals. At later stages, they provide investment advice to the customer.

Some offer personal financial management guidance as well as investment management services, both at the same time.

**With over $9 billion assets under management, Wealthfront is the leading robo-advisory investment FinTech in the world.**

**Presence**
- **PI** Founded in 2008 in U.S.
- **NS** Artificial intelligence driven robo-advisors manage the investments end to end.
- **FEES** Charges as low as 0.25% for the assets under management in the account.

**Features**
- Offers a mobile app.
- Performs automated rebalancing of the allocations among various instruments i.e. stocks, bonds etc.
- Performs automated tax loss harvesting for the taxable accounts.
- Customers have to maintain minimum account balance of just $5000.

**Incentive**
Wealthfront manages the first $10000 for free and an additional $5000 for free if the customer invites a friend.
PERSONAL FINANCIAL MANAGEMENT

In East Africa, while mobile money has led to increased financial inclusion, proportionate rise in financial literacy and informed management is the key for the sustainable growth.

With the increase in usage of mobile money and bank account transactions, tracking daily expenses has been a challenge for most of the individuals across globe. Personal Finance Management FinTechs are trying to address this need by developing simple yet effective and easy to use tools coined as the Money Managers. Such tools are being developed not only for the individuals but also for the businesses.

Businesses have the cumbersome tasks of tracking and reconciling day to day payments, employee payouts like reimbursements etc. FinTechs have identified the issues in managing these cash flows and are trying to address them by providing tools that help with sorting, reconciling and monitoring these payouts on real time basis. Tracking of income and expenses on regular basis causes the individuals to gain control over their finances which in turn pushes them to save and invest more.

Technology:
API: Open APIs help in extracting financial information from multiple data sources which is then consolidated to provide a single view.

Text Mining: FinTechs extract meaningful information from SMSes eg: Amount Debited, Date, Purpose, Mode of payment etc. They maintain an exhaustive list of the SMS codes sorted by the entities eg., Banks.

Model Feasibility
Currently, stand alone PFM models do not charge any fee from the consumer and are largely dependent on advertisements as revenue. However, in future, these FinTechs are expected to provide highly customized products/services to their customers based on analysis of their savings and/or expenses in order to become profitable.

Value proposition

Cross sell
Single customer view of banking and mobile money accounts and the ability to cross sell across product categories.

Customer experience/speed
Interactive dashboards to view the transactions across different entities, categorisation of payments, event based notifications etc., can enhance the customer experience.
**Scalability**
Limited scalability in East Africa as target segment is middle and high income.

**Model Economics**
**Cross sell:** The personal financial management applications generally cross sell loans, savings, insurance products etc., which are critical to the profitability of the model. Eg: Ugandan start-up Numida has developed an app that helps the businesses especially MSMEs to perform financial management and eventually after the engagement crosses certain time period, offers them unsecured loans.

**B2C:** FinTechs offering financial management for individuals provide these products for free and depend upon advertisements for revenue. They also charge commission from their partners for promoting loans, investment, savings products etc. Many players offer advisory or other value added services on a chargeable basis.

**B2B:** For businesses, PFM FinTechs generally have set revenue structure which may be earned via fixed licensing costs or variable periodic charges that are linked to the usage.

**Business Model Elements**

**User Interface:** Simple, clear and single view of all the financial information in the user friendly framework drives adoption.

**Insights:** Offer meaningful insights to the user that are reliable and intuitive enough to act.

---

**Market Overview**
The assessment of the market revealed that there limited number of FinTechs providing Personal Financial Management in the region unlike developing countries like India. Out of the identified 6 FinTechs, it emerged that all were either established or operating in Kenya. Similar FinTechs were not identified in other parts of the region.

<table>
<thead>
<tr>
<th></th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Others</th>
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<tbody>
<tr>
<td><strong>6</strong></td>
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</table>
PFM services dedicated to the individual customers and provided through web portals or mobile apps.

B2C

B2C + B2B

These FinTechs provide financial management services to both individuals as well as businesses.

B2C + B2B

Hybrid

Such FinTechs not only offer PFM services but also diversify to cross sell products like loans, investment and insurance.

Gaps/Opportunities

Lower count:
While the mobile money penetration is high in the East African region, there are very limited number of FinTechs that have ventured into personal financial management in East Africa.

Chatbot enabled PFM models:
Globally, start ups like Cleo, Plum, Chip, Ernest etc. are offering AI driven interactive platforms aided with chatbots that perform financial tracking and management for the customers. FinTechs in East Africa need to explore options to address this market gap.

Future Outlook

Banking apps and wallets as Financial Managers:
Mobile wallets, banks may either develop PFM tools on their own or partner with the existing ones. The 360 degree view of the customer’s transaction and ability to position as the money manager would help them in enhancing customer engagement and subsequently their share of the wallet.

Partnerships: The natural progression for the PFM FinTechs is to partner with the businesses to either offer loans, insurance, investment products or payment services in addition to the personal finance management tools.

Presence

Overview aspires to integrate with the mobile lending apps like Branch and Tala.

B2C

They have developed an Android app to offer holistic view of transactions in all the accounts.
One can also categorize the expenses or view a single digital statement for all the underlying accounts.

B2B

Developed customer centric white labeled interfaces which include customizable modules that can be integrated into the existing apps eg: Bank or mobile wallet apps.

Presence

Launching in Kenya in 2017

CE 360 degree view of the transactions, supported by notifications and insightful dashboards are likely to attract the users.

B2C

Savings+ & Tax+: Partnered with ICICI Prudential to offer a green account platform to its customers to invest into the liquid or tax saving funds.
Personal loans: Pre-approved loan to certain set of the customers which can be availed within few hours.

Money View

The PFM app has more than 10 million downloads.

Presence

Founded in India in 2014

CE 7 different local languages

XS

Features

Budget Management
Expense Categorization
Personal Financial Goals - Setting
FS ENABLERS

The FS Enablers can act as the bridge for the traditional financial services to leapfrog them towards competitive and transformative digital operations.

FS Enablers are the technology service providers whose infrastructural support and services are leveraged by the financial institutions, MNOs and FinTechs to offer innovative digital financial products and services to their customers.

These FinTechs have played a vital role in transforming the capabilities of the financial institutions. They use cutting edge technologies like AI (artificial intelligence), blockchain, machine learning, big data etc. to develop highly innovative platforms and services. Most of them leverage the cloud computing infrastructure, thus processing the data at lightning speed. Real time services credit scoring, fraud detection, segmentation, data management have become integral to the operations of the financial institutions owing to the partnerships with the banks.

These FinTechs leverage data from a wide range of sources i.e. Mobile, Location, Satellite, Wifi, Credit Bureau, Social platforms etc. to create insights that enhances the business growth prospects of the partner institutions. Applications range from investment management, personal financial management, insurance, lending, payments, compliance, enterprise level solutions etc.

TSPs are the support system of the FinTech evolution across the globe. With adequate funding support from time to time, such enablers would further transform the FinTech landscape.

Market Overview While being an emerging segment, Kenyan FinTech landscape has already seen over 17 enterprises acting as enablers for this FinTech revolution. Other countries like Tanzania are fast catching up.

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<thead>
<tr>
<th>Kenya</th>
<th>Tanzania</th>
<th>Others</th>
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<tbody>
<tr>
<td>17</td>
<td>6</td>
<td>7</td>
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</table>

Kenya: JUMO, NetGuardians, FirstAccess, Pula
Tanzania: FirstMobile
Others:
Financial institutions are entering into strategic partnerships with technology service providers offering big data credit scoring and API-based platforms.

**Major Business Models**

<table>
<thead>
<tr>
<th><strong>ScoreTech</strong></th>
<th><strong>FraudTech</strong></th>
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</thead>
<tbody>
<tr>
<td>Alternate data-based algorithms to compute credit scores.</td>
<td>Perform pattern analysis and fraud detection using machine learning and AI-driven algorithms.</td>
</tr>
<tr>
<td>These are adopted by various financial institutions to underwrite the loan borrowers.</td>
<td>By offering real-time fraud detection, these FinTechs help avert fraud occurrence.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>AdminTech</strong></th>
<th><strong>Blockchain</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Platforms that can be plugged to manage processes like insurance servicing, loan management.</td>
<td>Provide blockchain-based infrastructure for the partners to integrate and run their processes.</td>
</tr>
<tr>
<td>These platforms offer customised workflow management solutions.</td>
<td>The distributed database created by blockchain technology is one of its most distinct and important features.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>Chatbots</strong></th>
<th><strong>ComplianceTech</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive platforms driven by AI-based algorithms which draw insights from the content.</td>
<td>Advanced technology-backed compliance services like AML services.</td>
</tr>
<tr>
<td>These are often designed to convincingly simulate how a human would behave as a conversational partner.</td>
<td>These enablers help evaluate complex data sets to cater to the increasing regulatory needs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>VeriTech</strong></th>
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<tbody>
<tr>
<td>Automate the verification processes and provide real-time insights. Eg., Financial documents verification during loan application. Image and pattern recognition is adopted by many financial institutions for signature and identity verification.</td>
</tr>
</tbody>
</table>

Data-driven technology is the foundation for the disruption and essentially more enablers with refined platforms would evolve.

**Gaps / Opportunities**

<table>
<thead>
<tr>
<th><strong>Fraud Identification:</strong></th>
<th>Proactive detection of payment and identity frauds is essential for the FinTechs to stay profitable and build the trust among its customers. While the demand exists, the services are largely under-developed thus providing room for more.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local FinTechs:</td>
<td>Higher proportion of the FinTechs are of global origin. Local enablers need to be supported through funding and incubation services.</td>
</tr>
<tr>
<td>RegTech:</td>
<td>Deployment of advanced technologies to extract data and analysis to help the regulators build their capabilities and the financial institutions to comply with the evolving regulatory framework is currently limited to few FinTechs/FIs.</td>
</tr>
</tbody>
</table>

**Future Outlook**

<table>
<thead>
<tr>
<th><strong>IoT, Biometrics:</strong></th>
<th>With this recent surge in usage of IoT devices, enablers are likely to develop platforms to interface with such devices and leverage the advanced algorithms to provide data-driven insights. Fingertip and facial recognition using biometric technology are also likely to be applied for dynamic authentication and identification.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Convergence with speed:</strong></td>
<td>Financial institutions such as tier-2, tier-3 banks and MFIs would increasingly partner with the enablers to help them digitize, increase their outreach and stay at par with the competition provided by the FinTechs. Enablers being the bridge between various parties, will play a major role in product diversification and convergence of the ecosystem.</td>
</tr>
</tbody>
</table>
Presence
Kenya, Tanzania

Content Marketplace Platform + Chatbot:
Can be accessed using SMS, thus eliminating the need for internet.

Partnerships:
Equity Bank in Kenya: To create customized financial literacy courses distributed via SMS
M-Pesa, Vodacom and Commercial Bank of Africa
Recently, it executed a pilot for the farmers in rural Tanzania. It developed SMS scripts to guide them eg: Checking of loan limit, set personal savings goals.

Content Marketplace + Chatbot

Credit Scoring

Presence
Tanzania

Credit Scoring:
Customizable platform for lending institutions to credit score its loan applicants. Which mines the customer data and deduces the patterns to for profiling and monitoring them.

Credit Scoring

Fraud Identification

Presence
Kenya

Fraud Identification:
The company’s platform leverages big data and predictive analytics to profile customers and perform pattern analysis. It updates on continuous basis and has the capabilities to offer real time protection.

Fraud Identification

Jumo has processed 5 million plus customers and facilitated the disbursal of 20 million loans, 80% of which are mall business.

Presence
Kenya, Uganda, Tanzania and Rwanda.

All inclusive services (Technology, Credit Underwriting, Product Design and Distribution): GSM, call patterns, mobile money transactions, location data, KYC data, phone type, movement patterns etc. data is used to create the customer’s financial profile. This helps the partner banks to compete by offering products at comparatively lower costs.

USSD Menu Integration:
For the partner MNOs like Airtel, Tigo and MTN respectively

Credit Underwriting
Product Design
Administrative Management

Jumo

115
It has developed a mobile app based one stop insurance platform named WazInsure™ which drastically reduces distribution and administrative costs.

**Presence**
Kenya

**Features**
Insurance Underwriting and Management Platform:
- Underwriting Automation
- Policy Administration
- Customized Reporting
- Renewal Management
- Agency Administration

**Revenue Model**
- **B2C** - Commissions earned as an intermediary for access to policyholders market through various aggregators.
- **B2B** – Leasing and advertising fees charged to the insurance companies.

**FarmDrive**
Farm Drive partners with farmer organizations and vendors to facilitate credit access to smallholder farmers.

**Credit Scoring**

**Presence**
Kenya

**Hybrid Model**
Alternate data based Credit Scoring:
- Information from APIs - Ministry of agriculture, FAO, Transunion, CRB, ID registration department, satellite data etc.
- SMS: It uses mobile phones to interact with farmers using SMS to gather information about them.

**Revenue Model**
- **Transaction fee** on the loans issued
- **Revenue share** - a percentage of the interest charged on loans advanced to farmers by institutions that use their score.

**Partnership**
The farmer profiles are shared to the financial institutions for offering loans. It also assist these institutions in creating decision tools for loan tenures and pricing for the farmers.
A sneak preview into the future

Mapping of capabilities across the customer life cycle

Customer data/ KYC/ credit history

Brand/ trust

Alternate data

New age value chain

Customer owning entities e.g. banks and telcos will own customer acquisition.

FinTechs could own the alternate data extraction and underwriting in the next part of the processes – FS enabler model of FinTechs is likely to thrive.

FinTechs are likely to transition into banks; this will enable them attract low cost funds from the public.

Customer owning entities e.g. banks and telcos will own customer acquisition.

Customer owning entities e.g. banks and telcos will own customer acquisition.
About Us

**East Africa Venture Capital Association (EAVCA)**
The East Africa Venture Capital Association (EAVCA) was founded in 2013 to represent the private equity industry in East Africa. The objective was to provide a platform for industry players to raise awareness and engage in regional policy matters. It also plays a role in influencing policy within government and other institutions. It aims to ultimately play a greater role in mobilizing investment flows in the region. To help achieve this objective, the association provides reliable research and data needed by investors in order to make an informed decision on where to invest and why, providing more credibility to the region as an investment destination as a whole.

**Contacts:** Eva Warigia, Executive Director | eva@eavca.org | +254 722 433212

**Financial Sector Deepening (FSD) Africa**
FSD Africa is a £30 million financial sector development programme funded by the UK government. Established in 2012, FSD Africa aims to reduce poverty across sub-Saharan Africa by building financial markets that are efficient, robust and inclusive by applying a combination of factors including resources, expertise and research. Specifically, FSD Africa provides know-how and capital to champions of change whose ideas, influence and actions will make finance more useful to African businesses and households.

Through the access to finance initiatives FSD Africa builds financial inclusion while through the capital markets initiatives, it promotes economic growth and increase investments.

**Contacts:** Vimal Parmar, Capital Markets Development Specialist | vimal@fsdafrica.org | +254 729/780 729111

**Netherlands Development Finance Company (FMO)**
FMO is the Dutch Development Bank founded in 1970 through a public-private partnership between the Dutch state with 51% and other stakeholders (commercial banks, trade unions and other members of the private sector) who own 49%. The objective of FMO is to offer support to sustainable private sector growth in developing and emerging markets by investing in businesses, projects and financial institutions. FMO offers a range of financial products including long term loans private equity, trade finance, mezzanine, and other tailor-made products. FMO has a triple A rating from both Fitch and Standard & Poor’s.

**Contacts:** Andrew Shaw, Senior Capacity Development Officer | A.Shaw@fmo.n
Founded in 2002, Intellecap is a pioneer in providing innovative business solutions that help build and scale profitable and sustainable enterprises dedicated to social and environmental change across various sectors including energy, agriculture, education, water and sanitation, health and financial inclusion.

Our financial services practice seeks to assist clients in the financial inclusion space in developing their business strategy, customer acquisition and engagement strategy, people strategy, digital and operational transformation among others. We have built financial services expertise in the emerging markets in Africa and South Asia across MFI, clean energy, agri and MSME finance segments.

Contacts: Himanshu Bansal, Head - Financial Services Consulting | himanshu.bansal@intellecap.com | +91 77388 47789

Our capabilities
- Business strategy
- Customer acquisition
- Customer life cycle management
- Digital transformation
- Collections and risk management
- People strategy
- Landscape studies
- Digital financial inclusion
- Digital ecosystem

Our focus sectors
- MSME finance
- Retail finance
- Agri-finance
- Microfinance
- Clean energy finance
- Micro insurance
- Banking

Report authors: Himanshu Bansal (Head – Financial Services Consulting), Vineeth Menon (Associate Vice President), Nikhil Jambawalikar (Associate Vice President), Anthea Muthusi (Advisor), Cosmas Koech (Manager), Racheal Wangari (Senior Associate), Agnes Makena (Associate)

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Stakeholder Consultations

Name of Institution

1. EAVCA
2. Umati Capital
3. AfricInvest
4. AHL Ventures
5. Blue Haven
6. Tala
7. Lendable
8. CBA
9. Farmdrive
10. FMO
11. Quona Capital
12. Sasa Solutions
13. Stratera Capital
14. Numida
15. Inuka Pap
16. Symbiotic
17. Alternative Circle
18. CRDB Microfinance Bank Tanzania
19. Jamii Africa
20. Click Pesa
22. Bitsoko
23. Craft Silicon
24. Sumac DTM
25. Atlancis Technologies
26. FACTs
27. BitPesa
28. Beyonic
29. ABC Bank
30. Lundin Foundation
31. SafePay
32. Mshwari
33. JamboPay
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<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Description</th>
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<tbody>
<tr>
<td>AC/SC</td>
<td>Acquiring costs/ Servicing costs</td>
</tr>
<tr>
<td>AI</td>
<td>Artificial Intelligence</td>
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<tr>
<td>AML</td>
<td>Anti-Money Laundering</td>
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<tr>
<td>API</td>
<td>Application programming Interface</td>
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<tr>
<td>ATM</td>
<td>Automated Teller Machine</td>
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<tr>
<td>B2B</td>
<td>Business to Business</td>
</tr>
<tr>
<td>B2C</td>
<td>Business to Consumer</td>
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<tr>
<td>BAU</td>
<td>Business as Usual</td>
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<tr>
<td>BOP</td>
<td>Base of pyramid</td>
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<tr>
<td>BOT</td>
<td>Bank of Tanzania</td>
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<tr>
<td>BOU</td>
<td>Bank of Uganda</td>
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<tr>
<td>C2B</td>
<td>Consumer to Business</td>
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<tr>
<td>CAGR</td>
<td>The compound annual growth rate</td>
</tr>
<tr>
<td>CAK</td>
<td>Communications Authority of Kenya</td>
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<tr>
<td>CBA</td>
<td>Commercial Bank of Africa</td>
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<td>CBK</td>
<td>Central Bank of Kenya</td>
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<td>CDSC</td>
<td>Central Depository and Settlement Corporation</td>
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<td>CE</td>
<td>Customer Experience</td>
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<tr>
<td>CRB</td>
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<td>East Africa Venture Capital Association</td>
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<td>e-Commerce</td>
<td>Electronic commerce</td>
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<tr>
<td>EFT</td>
<td>Electronic Funds Transfer</td>
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<td>e-KYC</td>
<td>Electronic Know Your Customer</td>
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<tr>
<td>EMEA</td>
<td>Europe, the Middle East and Africa</td>
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<td>E-retailers</td>
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<td>GMEA</td>
<td>General Motors East Africa</td>
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<td>GPS</td>
<td>Geo-positioning System</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
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<tr>
<td>GSM</td>
<td>Global System for Mobile Communications</td>
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<td>GWP</td>
<td>Gross Written Premiums</td>
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<td>HELB</td>
<td>Higher Educations Loans Board</td>
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<td>ICT</td>
<td>Information Communication and Technology</td>
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<td>IoT</td>
<td>Internet of Things</td>
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<td>IPO</td>
<td>Initial Public Offering</td>
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<td>IRA</td>
<td>Insurance Regulatory Authority</td>
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<td>IRR</td>
<td>Initial Rate of Return</td>
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<tr>
<td>ITU</td>
<td>International Telecommunication Union</td>
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<td>IVR</td>
<td>Interactive Voice Response</td>
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<td>KASIB</td>
<td>Kenya Association of Stockbrokers and Investment Banks.</td>
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<tr>
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<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<tr>
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<td>Kenya Revenue Authority</td>
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<td>M-commerce</td>
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<td>MFI</td>
<td>Micro Finance Institution</td>
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<td>Mobile Network Operator</td>
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<tr>
<td>MSME</td>
<td>Micro, small and Medium Enterprises</td>
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<tr>
<td>MVNO</td>
<td>Mobile Virtual Network Operator</td>
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<td>National Bank of Ethiopia</td>
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<td>NBR</td>
<td>National Bank of Rwanda</td>
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<td>NFC</td>
<td>Near Field Communications</td>
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<td>NM</td>
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<td>Peer to peer</td>
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<td>PC</td>
<td>Personal Computer</td>
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<tr>
<td>PCI-DSS</td>
<td>The Payment Card Industry Data Security Standard</td>
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<td>PFM</td>
<td>Personal Financial management</td>
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<td>PI</td>
<td>Product Innovation</td>
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<td>POS</td>
<td>Point of Sale</td>
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<tr>
<td>QR Code</td>
<td>Quick Response Code</td>
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<td>ROA</td>
<td>Return on Assets</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>ROE</td>
<td>Return on Equity</td>
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<td>ROI</td>
<td>Return On Investment</td>
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<td>Real Time Goss Settlement</td>
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<td>Savings and Credit Co-operatives</td>
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<td>Short Message Service</td>
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<td>STK</td>
<td>Sim Tool Kit</td>
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<td>Turn Around Time</td>
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<td>TCRA</td>
<td>Tanzania Communications Regulatory Authority</td>
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<td>TIRA</td>
<td>Tanzania Insurance Regulatory Authority</td>
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<td>Technology Service Provider</td>
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<td>Uganda Communication Commission</td>
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<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>US</td>
<td>United States</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>USSD</td>
<td>Unstructured Supplementary Service Data</td>
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<td>Venture Capital</td>
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<tr>
<td>XS</td>
<td>Cross Sell</td>
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<td>YoY</td>
<td>Year on Year</td>
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</table>
# Partnerships: List of Current partnerships in East Africa

List of current partnerships in East Africa (not exhaustive)

<table>
<thead>
<tr>
<th>Product</th>
<th>Country</th>
<th><strong>PARTNERS</strong></th>
<th>Telco Wallet</th>
<th>FinTech</th>
<th>Others</th>
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<tr>
<td>Pesalink</td>
<td>Kenya</td>
<td>30 commercial banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>A real time money transfer service from a local Kenya Shillings bank account to another in real-time that is available 24/7.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Allows interoperability of financial services thus faster and more convenient transactions between bank accounts.</td>
<td></td>
<td></td>
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<tr>
<td>M-Shwari</td>
<td>Kenya</td>
<td>Commercial Bank of Africa (CBA)</td>
<td>Safaricom (M-pesa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>The first mobile micro-credit and savings product in Kenya that allows instantaneous application and disbursement of loans to m-pesa customers.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Has enabled lending to the microsegment that previously lacked access to formal credit.</td>
<td></td>
<td></td>
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<tr>
<td>KCB M-Pesa</td>
<td>Kenya</td>
<td>Kenya Commercial Bank (KCB)</td>
<td>Safaricom (M-pesa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>A mobile micro-credit and savings product that enables instantaneous application and disbursements of loans exclusively to m-pesa customers.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Digital application and processing of the credit and digital operation of the savings account helps in reducing operational cost.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-Pawa</td>
<td>Tanzania</td>
<td>Commercial Bank of Africa (CBA)</td>
<td>Vodacom (M-pesa)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>The first mobile micro-credit and savings product in Tanzania that enables instantaneous application and disbursements of loans to m-pesa customers</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Has enable use of additional data points (mobile wallet transactions data) for credit scoring.</td>
<td></td>
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<tr>
<td>MoKash</td>
<td>Uganda, Rwanda</td>
<td>Commercial Bank of Africa (CBA)</td>
<td>MTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>A mobile based account that offers convenient access to deposit and loan products to MTN money customers.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Has enhanced the customer experience through instantaneous digital application and disbursement of credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>Country</td>
<td><strong>PARTNERS</strong></td>
<td>Telco Wallet</td>
<td>FinTech</td>
<td>Others</td>
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<tr>
<td><strong>Banks/MFI/Insurance</strong></td>
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<tr>
<td>Equitel</td>
<td>Kenya</td>
<td>Equity bank</td>
<td>Airtel</td>
<td>Finserve</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>Equitel provides a platform that enables customers to perform financial transactions (sending, receiving and withdrawing money through mobile) as well as make calls, send SMS and browse internet all on one platform.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Offers easy access to both banking and telcom services in one platform.</td>
<td></td>
</tr>
<tr>
<td>M-Ledger</td>
<td>Kenya</td>
<td>Safaricom</td>
<td></td>
<td>Dynamic data systems</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>An android-based mobile application that allows M-Pesa subscribers to track and monitor all their M-pesa transactions in a simple and easy way by providing a financial journal on their devices.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Offers real time tracking of m-pesa transactions.</td>
<td></td>
</tr>
<tr>
<td>Timiza Wakala</td>
<td>Tanzania</td>
<td>Airtel (Airtel money)</td>
<td></td>
<td>JUMO</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>Launched in 2015 the product aims to provide affordable credit to the over 20,000 Airtel money agents.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Uses algorithms to determine the credit score of the agents.</td>
<td></td>
</tr>
<tr>
<td>Bima Mkonomi</td>
<td>Tanzania</td>
<td>Resolution insurance</td>
<td>Tigo (Tigo Pesa)</td>
<td>Milvik Bima</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>The product enables Tigo customers to quickly and easily enroll for a low cost mobile-insurance product of their choice and pay with Tigo Pesa.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Facilitates easy registration of products and payment of premiums enhancing uptake even in previously underserved markets.</td>
<td></td>
</tr>
<tr>
<td>Jamii Africa</td>
<td>Tanzania</td>
<td>Jubilee insurance</td>
<td>Vodacom (M-Pesa)</td>
<td>Edgepoint Ltd</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>This is a one dollar a month micro insurance product targeting the informal sector in Tanzania. The product helps reduce the administration cost of an insurance company by 95%.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Helps reduce the insurance administration cost thus reducing the premiums charged.</td>
<td></td>
</tr>
<tr>
<td>Haloyako</td>
<td>Tanzania</td>
<td>FINCA microfinance</td>
<td>Halotel (HaloPesa)</td>
<td>Edgepoint Ltd</td>
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<tr>
<td><strong>Description:</strong></td>
<td></td>
<td>It's a mobile saving service which allows low income business owners to save for their future investments. Users set saving targets and earn free mobile airtime as they achieve their goals.</td>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td>Enables users to save in an easy way with the ability to track their savings journey from an accessible platform in real time.</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>Country</td>
<td><strong>PARTNERS</strong></td>
<td>Telco Wallet</td>
<td>FinTech</td>
<td>Others</td>
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<tr>
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<tr>
<td><strong>Description:</strong> The first affordable mobile crop insurance product that offers farmers protection against drought, at the germination and flowering phase of crop development.</td>
<td></td>
<td>UAP insurance</td>
<td>Airtel (Airtel money)</td>
<td>ACRE Africa</td>
<td>Seed Co</td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong> Provides a quick and accessible way through which farmers apply for insurance.</td>
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</tr>
<tr>
<td>Tigo Nivushe</td>
<td>Tanzania</td>
<td></td>
<td>Tigo (Tigo Pesa)</td>
<td>JUMO</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> An innovative mobile based micro-credit product that allows Tigo Pesa users immediate access to small loans starting from $5. Customers are able to borrow higher amounts as they build their credit history.</td>
<td></td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong> Uses algorithms to determine the credit score of the customers.</td>
<td></td>
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<tr>
<td>Loans to uber drivers</td>
<td>Kenya</td>
<td></td>
<td>Branch</td>
<td>Uber</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> Under the partnership, high performing drivers using Uber will be able to leverage their data on the ride-hailing app to gain access to the new and performable loan product on the Branch app. The product offers lower interest rate on loans (1.2% p.m) with loans starting at USD 300.</td>
<td></td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong> Leverages non-traditional data sources e.g. driver’s rating to give a credit score that determines loan eligibility.</td>
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<tr>
<td>Jumia loans</td>
<td>Kenya</td>
<td></td>
<td>Branch</td>
<td>Jumia</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> The partnership allows small scale traders on Jumia to access low cost loans (1.2% p.m) with loans starting at USD 300 through their mobile phones by traders leveraging on alternate data (sales statistics and projections).</td>
<td></td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong> Leverages non-traditional data sources e.g. sale statistics and projections to give a credit score that determines loan eligibility.</td>
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<tr>
<td>M-Birr</td>
<td>Ethiopia</td>
<td></td>
<td></td>
<td>5 MFIs</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> A mobile money service provider that allows transfer of money between M-Birr customers, payment of bills and mobile top up.</td>
<td></td>
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</tr>
<tr>
<td><strong>Unique Selling Point/Value proposition:</strong> Enables easy transfer and receipt of money, payment of bills at the click of a button.</td>
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<tr>
<td>Product</td>
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<td>Telco Wallet</td>
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<tr>
<td>Joint agency banking platform</td>
<td>Uganda</td>
<td>Uganda Bankers Association</td>
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<td>Eclectic International</td>
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<tr>
<td><strong>Description:</strong></td>
<td></td>
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<tr>
<td>This is a centralized digital platform that will enable banks to share agents and thus benefit from cost reduction and centralized monitoring.</td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
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<tr>
<td>The shared platform helps in reduction in cost of running agents. Provides a one stop shop for banking services across various banks.</td>
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<tr>
<td>M - Tiba</td>
<td>Kenya</td>
<td>UAP Insurance</td>
<td>Safaricom</td>
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<td>CarePay</td>
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<tr>
<td><strong>Description:</strong></td>
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<tr>
<td>The product allows subscribers to send, save and spend funds specifically for medical treatment. The money saved can only be used to pay for treatment at selected clinics and hospitals. Users receive a top up of $0.5 if they save a minimum of $1 per month.</td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
<td></td>
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<tr>
<td>Enables users to save and accumulate funds that can be used to mitigate a health emergency.</td>
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<td>M-Akiba</td>
<td>Kenya</td>
<td></td>
<td>Safaricom, Airtel</td>
<td></td>
<td>CBK, NSE, CDSC, The National Treasury, KASIB</td>
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<tr>
<td><strong>Description:</strong></td>
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<tr>
<td>This is a low cost (USD 30) retail bond issued by the Government of Kenya to raise money to fund infrastructure projects that can be accessed through mobile money or pesalink.</td>
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<tr>
<td><strong>Unique Selling Point/Value proposition:</strong></td>
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<td>Enables instantaneous purchase of bonds; thereby lowering the costs associated with investment facilitation.</td>
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### Some recent FinTech deals in East Africa

<table>
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<tr>
<th>Name</th>
<th>Country of Operation</th>
<th>Segment</th>
<th>Sub-Segment</th>
<th>Funding Received</th>
<th>Year</th>
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<tbody>
<tr>
<td>FarmDrive</td>
<td>Kenya</td>
<td>Technology</td>
<td>Software as a Service</td>
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<td><strong>Type of Funding</strong></td>
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<td><strong>Mechanisms</strong></td>
<td><strong>Funders</strong></td>
<td><strong>Investor Type</strong></td>
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<td></td>
<td>Funding Round</td>
<td>Equity</td>
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<td></td>
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<td>Safaricom Spark Fund</td>
<td>Corporate</td>
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<tr>
<td>Pezesha</td>
<td>Kenya</td>
<td>Lending</td>
<td>P2P Lending</td>
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<tr>
<td><strong>Type of Funding</strong></td>
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<td><strong>Mechanisms</strong></td>
<td><strong>Funders</strong></td>
<td><strong>Investor Type</strong></td>
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<td></td>
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<td>Digital Financial Services Innovation Lab</td>
<td>Corporate</td>
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<tr>
<td><strong>Type of Funding</strong></td>
<td></td>
<td><strong>Mechanisms</strong></td>
<td><strong>Funders</strong></td>
<td><strong>Investor Type</strong></td>
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<td>FinnFund (Finnish Fund for Industrial Cooperation Ltd)</td>
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**Type of Funding**

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