



# ***FINTREK***

EXPLORING NEW FRONTIERS  
IN **FINTECH INVESTMENTS**  
IN EAST AFRICA





# PREFACE

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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# FinTech Enablers and Value Proposition



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.

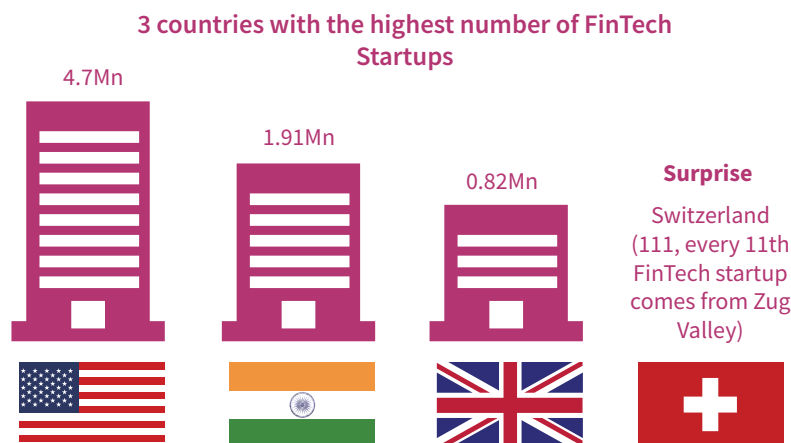


# FINTECH DISRUPTIONS: GLOBAL DRIVERS

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.

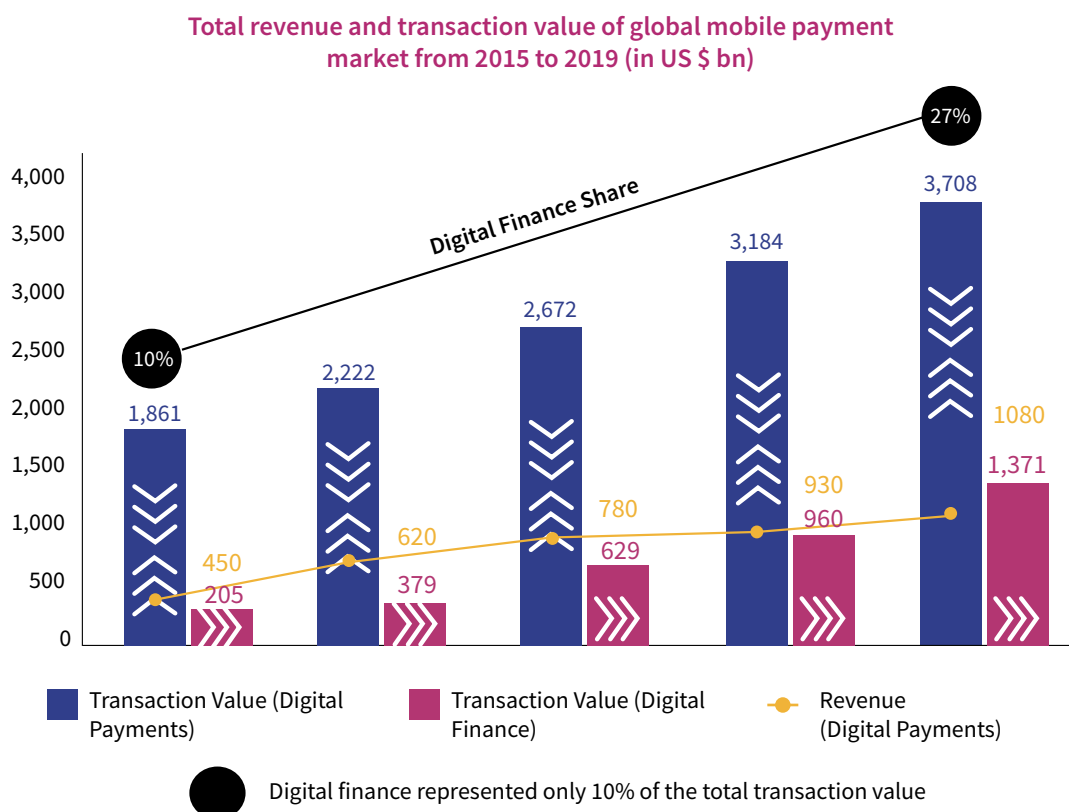
*The financial technology industry, popularly known as the 'FinTech', refers to firms leveraging technology to deliver financial products/services or capabilities to customers or other financial services firms.*

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.

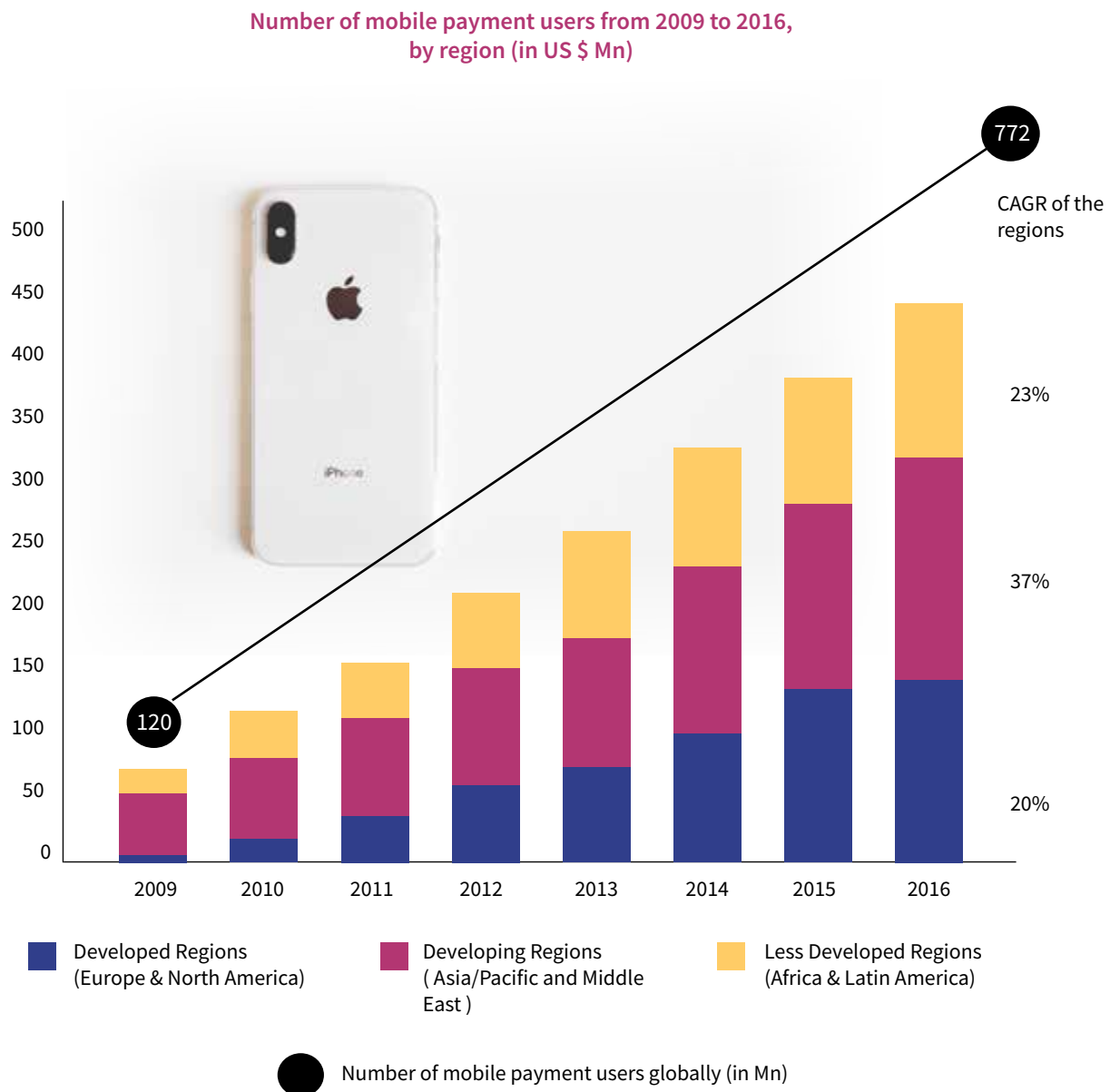


FinTech market projected to grow at 25% from \$3300 billion to 5082 billion in 2019.

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.



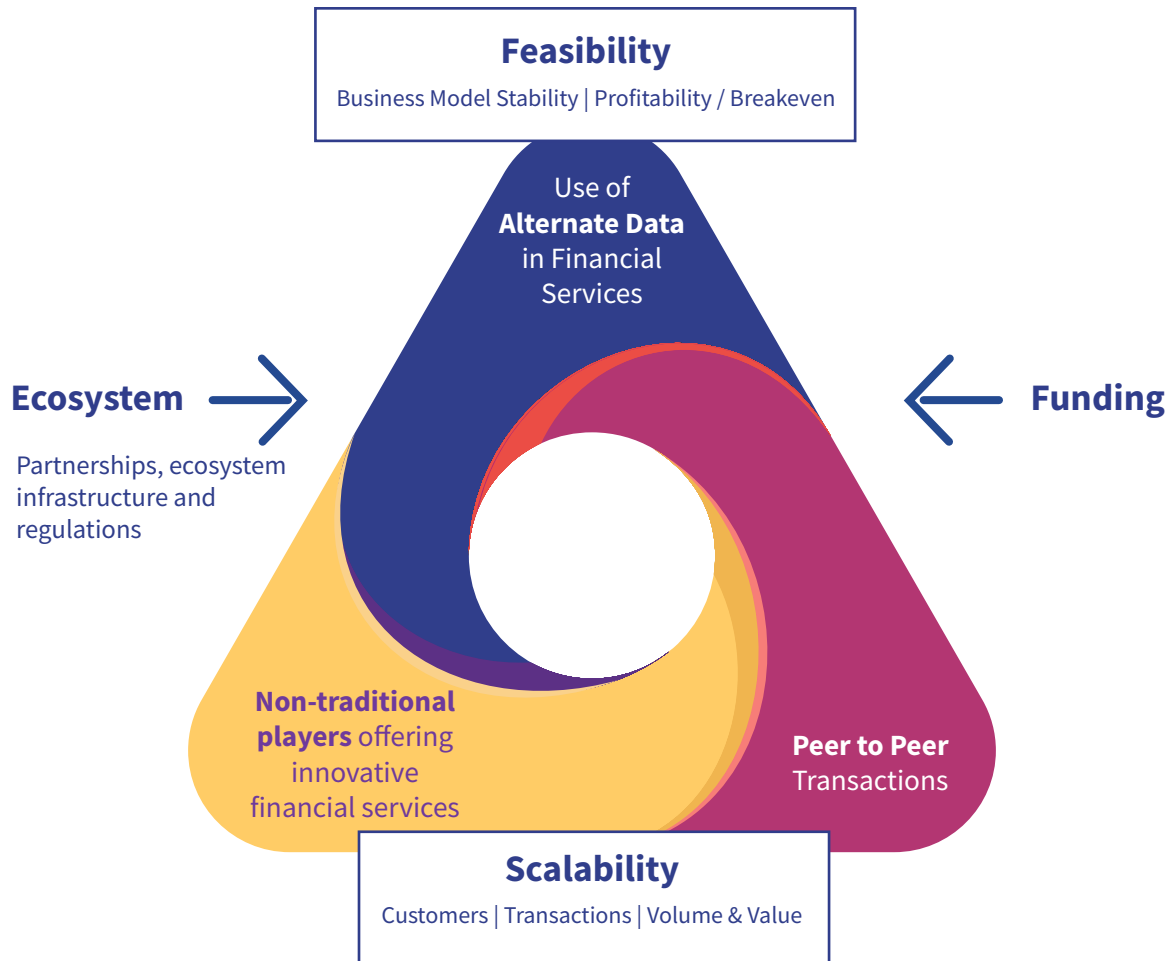
## The FinTech Disruption Framework

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

## Enablers

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



## 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

## 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**

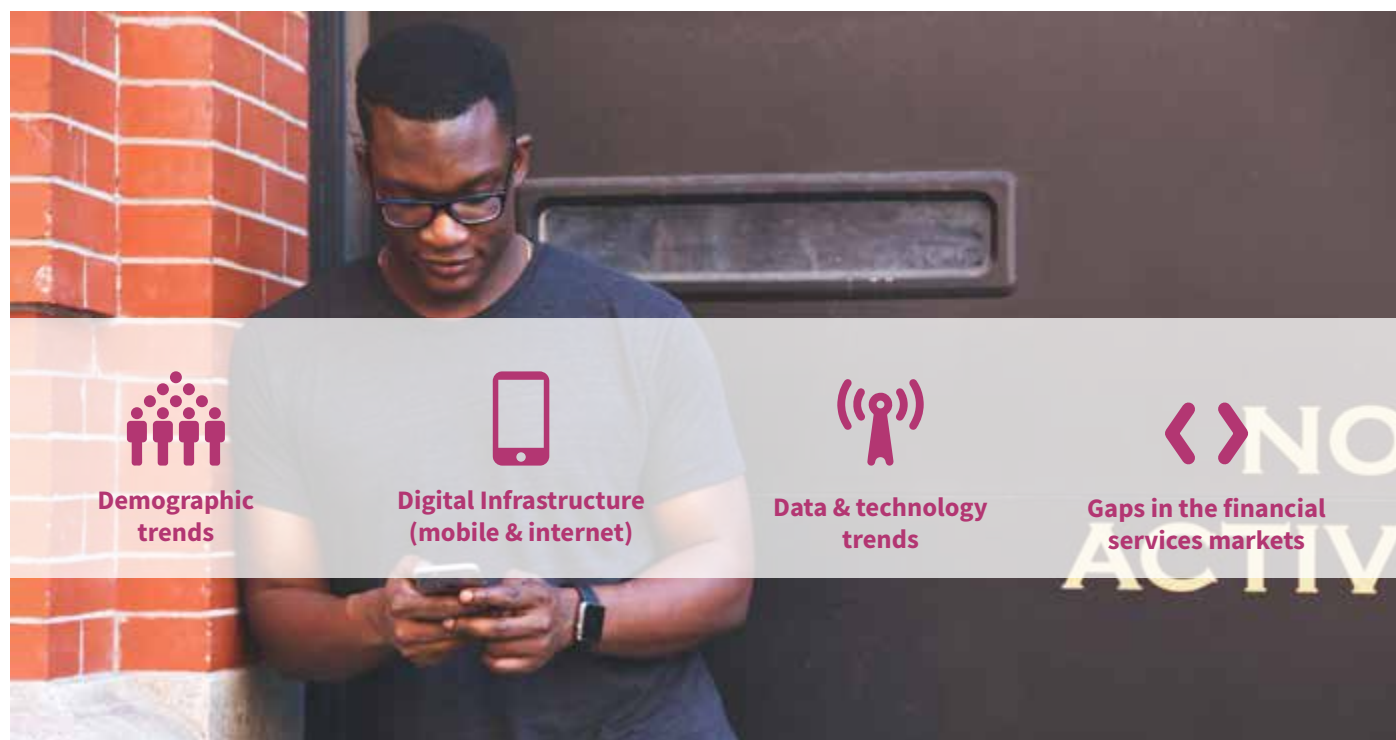
A combination of government policy and private sector innovation has led to a technology revolution in the region. In particular, the M-Pesa revolution, government investments in Konza City, and the launch of innovation labs in the country have made Kenya the technology hub of Africa. This niche market 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 :



Note: In this report, East Africa refers to Kenya, Tanzania, Uganda, Rwanda and Ethiopia

## 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 portion 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.



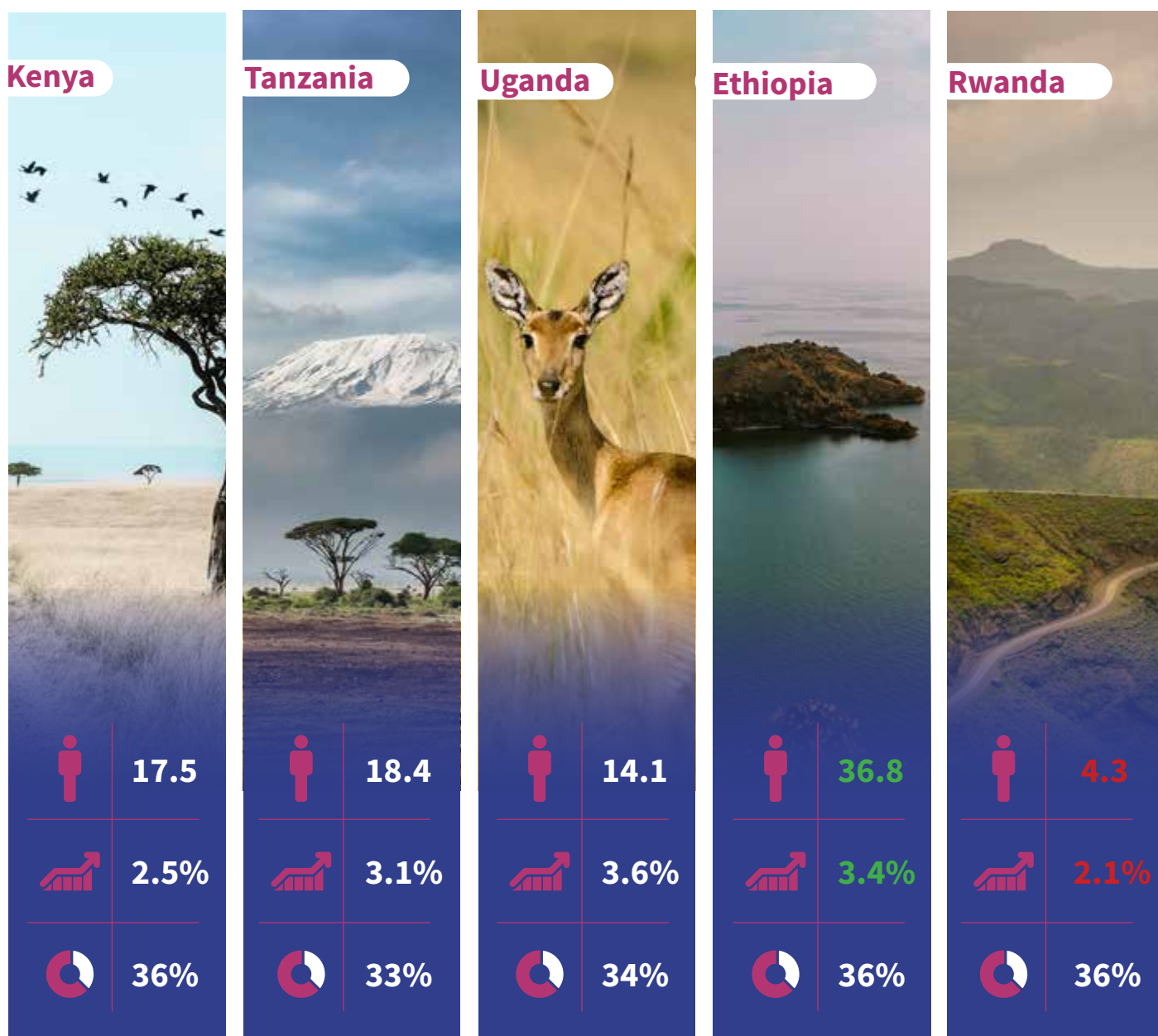
■ Millennial population (Mn)    ■ Projected millennial population (Mn)



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.

#### East Africa millennial population statistics, 2016



Millennial population  
(15-35 yrs) (Mn)



Millennial population  
growth rate



Share of total  
population

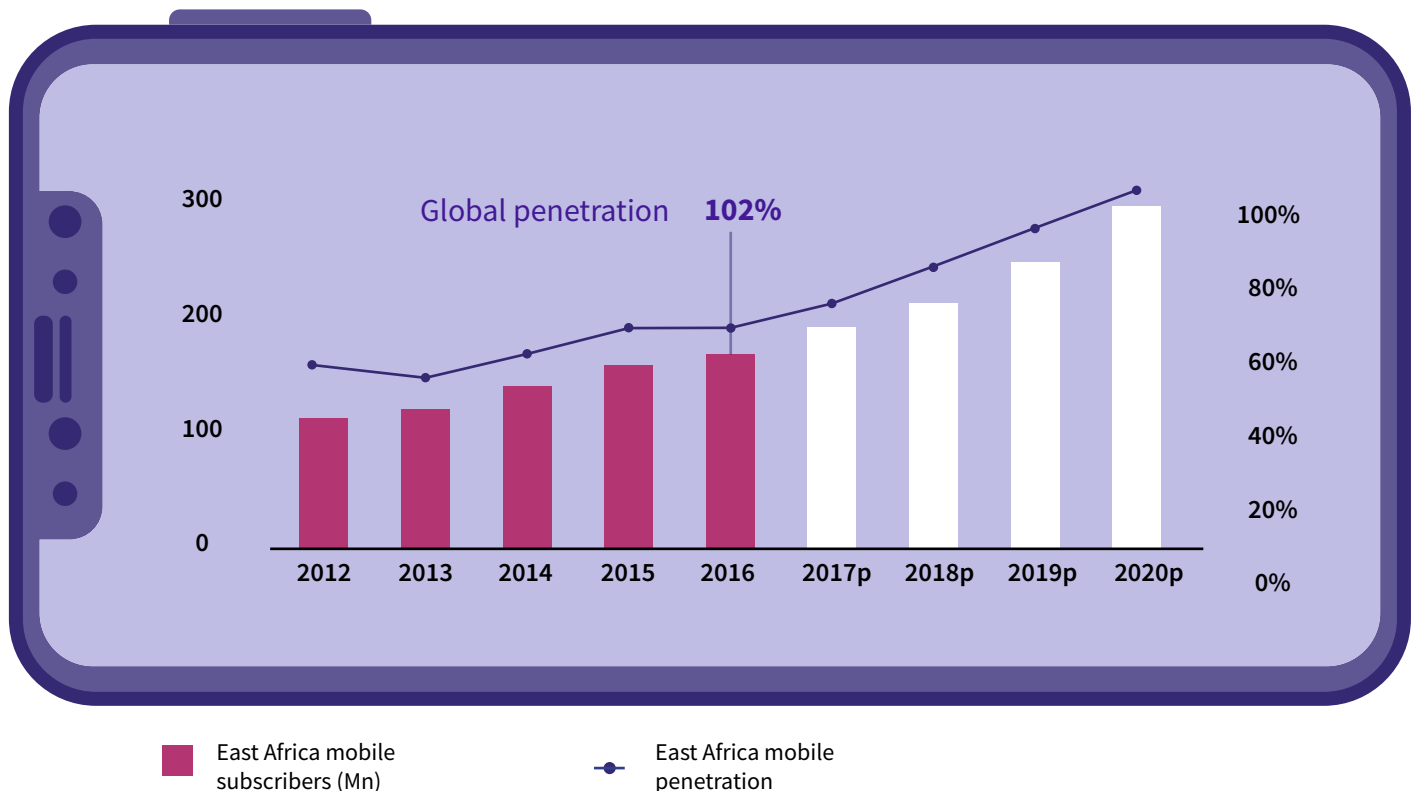
## Enabler 2: Digital Infrastructure

**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.

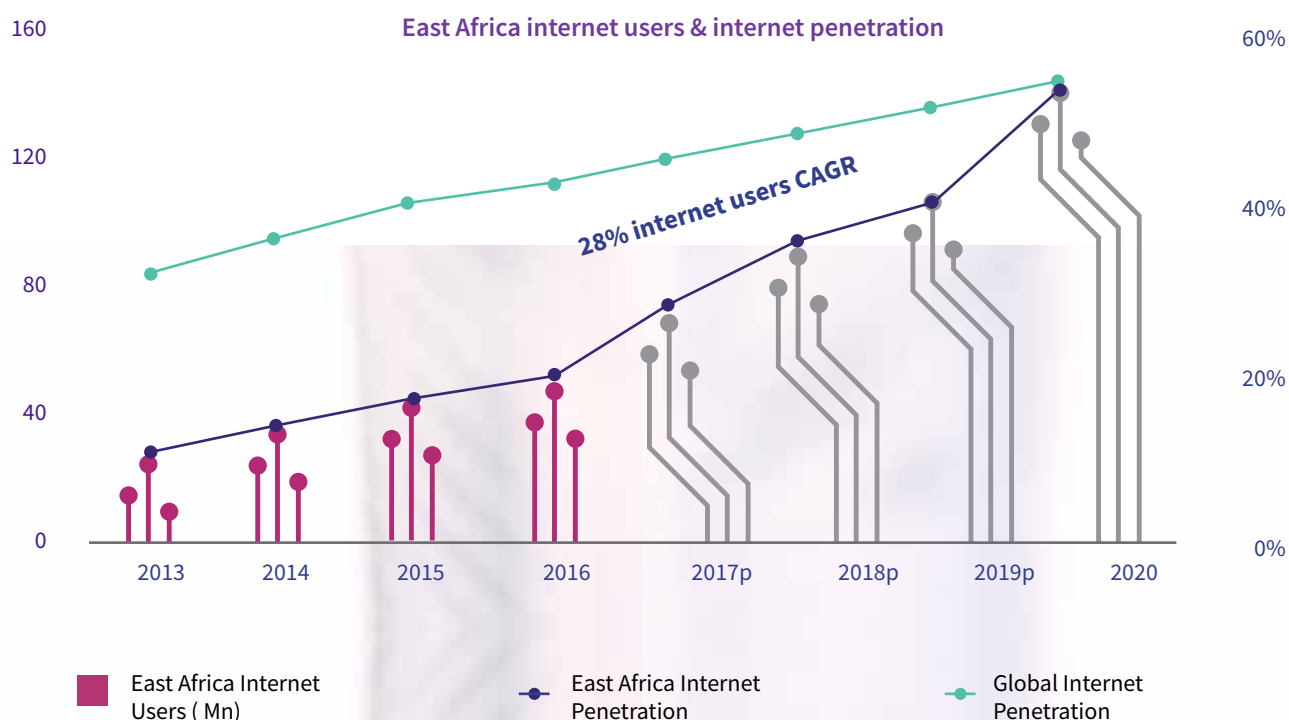
East Africa mobile subscribers & mobile penetration



Source: World bank, ITU, Intellicap 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.



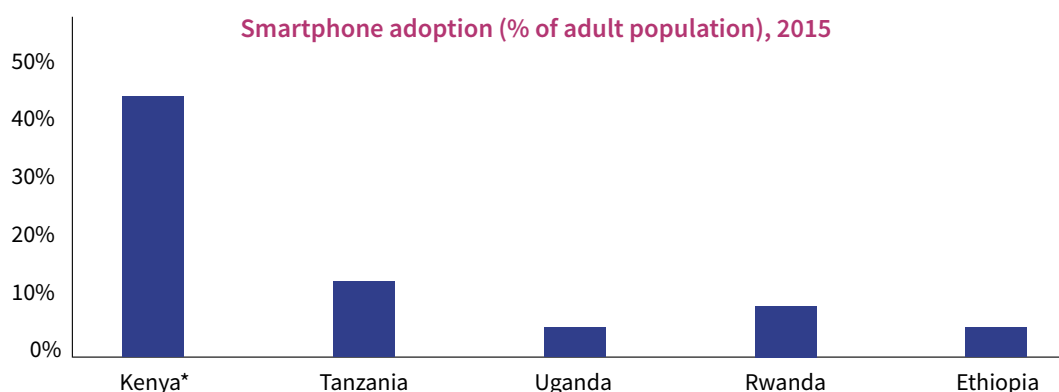
Source: World bank, Intellicap Analysis





**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.**

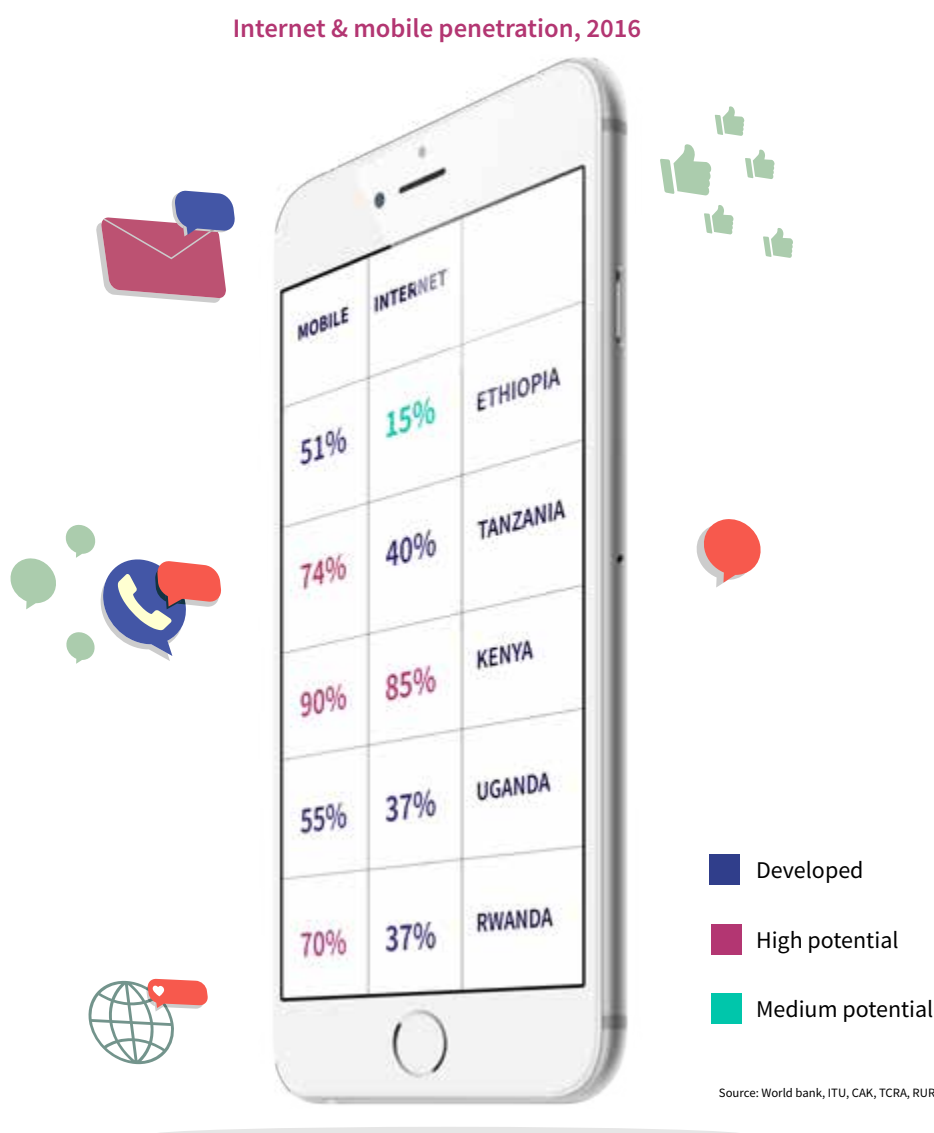
The decreasing price of smartphones has played a major role in increasing adoption. According to Jumia, average price of smartphones in Kenya fell by 50% from \$ 200 in 2013 to \$ 100 in 2016 increasing smartphone online sales by 800%.



\*2016 data  
Source: Google Consumer Barometer Survey, RURA, Pew Research

**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.







Source: World bank, ITU, CAK, TCRA, RURA, UCC

## 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.

	 <b>Business/ company profile</b>	 <b>Financials</b>	 <b>Past credit history</b>	 <b>Personal/ Management profile</b>
Traditional data sources	<ul style="list-style-type: none"> <li>• Company business plans</li> <li>• References from customers and suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Audited financial statements</li> <li>• KRA statements</li> <li>• Excise, income tax related filing data</li> </ul>	<ul style="list-style-type: none"> <li>• Past NPA/restructuring history</li> <li>• Reference check from existing bankers</li> <li>• Credit Reference Bureau (CRB)</li> <li>• Cash flow profile of business</li> </ul>	<ul style="list-style-type: none"> <li>• Reference check from industry</li> <li>• Any relationship/ references of a big corporate group</li> <li>• Educational qualifications</li> <li>• Background check reports</li> <li>• Account status eg: active dormant</li> </ul>
Emerging data sources in use in EA	<ul style="list-style-type: none"> <li>• Vintage</li> <li>• Seller rating</li> <li>• No. of categories</li> <li>• No. of customers served</li> <li>• No. of customer locations served</li> <li>• Board and Executive Directors details (liquidity, financial status)</li> </ul>	<ul style="list-style-type: none"> <li>• Last 3 months avg. net-sales</li> <li>• Net-sales for last month</li> <li>• Seller composite pricing score</li> <li>• No of product returns</li> <li>• Average inventory turnover</li> <li>• Frequency and value of mobile wallet transactions</li> </ul>	<ul style="list-style-type: none"> <li>• On-time payments/ returns</li> <li>• Returns processing</li> <li>• Repayment of previous mobile loans</li> <li>• Transactional SMS data (postpaid or prepaid, monthly/weekly spend)</li> <li>• Airtime advance repayment e.g okoa jahazi</li> </ul>	<ul style="list-style-type: none"> <li>• Social media sites, profile and connections</li> <li>• Online references/ testimonials</li> <li>• Past entrepreneurship track record</li> <li>• Financial applications installed</li> <li>• Location (GPS data)</li> <li>• SMS/texts</li> <li>• Age in mobile banking</li> </ul>
Potential data sources not in use in EA		<ul style="list-style-type: none"> <li>• Facility to evaluate bank account statements online (help reduce TAT)</li> </ul>	<ul style="list-style-type: none"> <li>• High Education Loans Board APIs</li> </ul>	<ul style="list-style-type: none"> <li>• Psychometric tools</li> <li>• Linguistic and spelling loggers to determine if your style is employed/ professional or of street language</li> <li>• Eye retina/pupils readers/pulse rate reader to tell when one is lying</li> <li>• Central repository for e-KYC</li> </ul>

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

Technology	Description	Current application in East Africa FS Market
<b>Current Technologies</b>		
<b>1. USSD</b> 	<p>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.</p>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Telco-bank products e.g M-Pawa, M-Shwari, KCB-Mpesa, MoKash are accessed through a USSD code</li> <li>• Key FinTechs e.g. Jamii Africa, farmdrive also rely on the technology to engage with their customers.</li> </ul>
<b>2. Sim Tool Kit (STK)</b> 	<p>STK enables the Subscriber Identity Module (SIM) to initiate actions which can be used for various value-added services.</p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>3. Mobile Apps</b> 	<p>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.</p>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Some of the lending FinTechs e.g Branch, Tala, Shika, Saida are only accessed through mobile apps.</li> </ul>
<b>Emerging Technologies</b>		
<b>4. Biometrics</b> 	<p>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.</p>	<p>Most banks have adopted fingerprint identification as a way of minimising fraud.</p>
<b>5. Near Field Communication (NFC) and QR Codes</b> 	<p>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.</p>	<p>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>



#### 6. Interactive Voice Response (IVR)/ Voice recognition technology



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.

#### 7. Wearables



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.

#### 8. Internet of Things (IoT)



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.

#### 9. Big data and analytics



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.

#### 10. Artificial Intelligence and Automation/Robotics



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.

#### 11. Block chain/Distributed ledgers



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.

#### 12. Open platforms and API (Application Program Interface)



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.

### 13. Cloud computing



This offers secure deployment options that can help banks develop new customer experiences, enable effective collaboration and improve speed to market.

Some banks eg. KCB have been adopting cloud computing to help in reduction of costs as well as data management.

### 14. Content Management System



This is a software that supports the creation and management of digital content.

Content management systems are mainly used by banks for their public websites and social media platforms.

Customer engagement technology

Backend technology

## 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



# FINTECH VALUE PROPOSITION

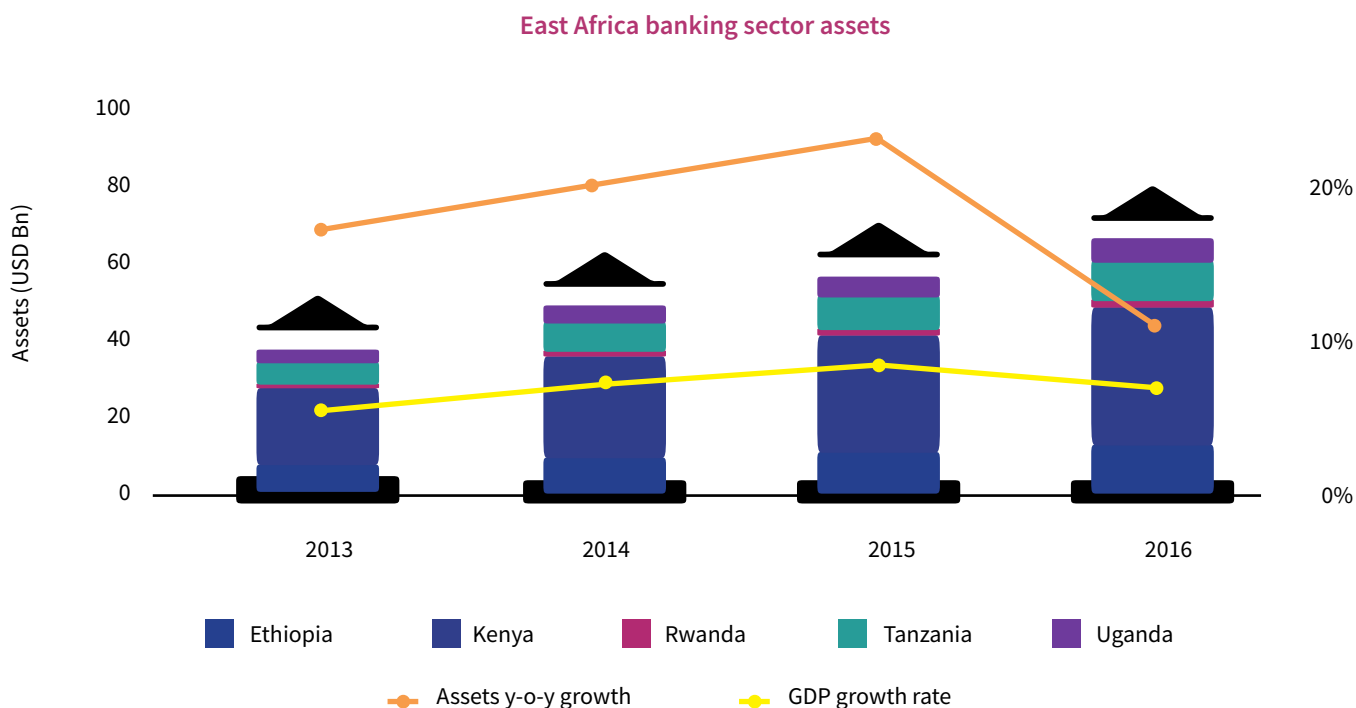
## Value Proposition - Lending

**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%.








Source: CBK, Bot, BoU, NBR, NBE



**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.

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

Source: CBK, BoT, BoU, 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.




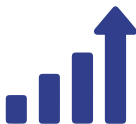




Success in the micro segment is driven through volumes. Telco-bank lenders in Kenya account for over 76% of total loan accounts but only 4% of the loan values indicating the low ticket size of loans advanced (~USD 25). On the other hand the banks account for 94% of the loan amounts advanced with an average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

Bank share of lending has been declining due to the interest cap introduced as well as 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.



## Existing Gaps

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

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

\*Boda boda are bicycle & motorcycle taxis commonly found in East Africa





### Agriculture Sector Financing

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.*



### Financing the 'hustler' segment

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.



### Education Financing

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.



### Credit to the MSME sector

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.

#### **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.*



### Housing Finance

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%.



### Asset Financing

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 manufacturers 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.

## FinTechs' value proposition

### Revenue /Growth Proposition

#### 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.

#### Potential FinTech value proposition

FinTechs can potentially allow lending through mobile phones thus able to 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

### 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.

#### Potential FinTech value proposition

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

### 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.

#### Potential FinTech value proposition

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

### Product innovation/customisation

#### Typical gaps/challenges in traditional players

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

#### Potential FinTech value proposition

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.

### 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

Digital loan origination, disbursement and repayment via mobile money within few hours at the click is providing enriching customer experience.

FinTechs can provide aggregation of multiple financial products from different providers at a single point.

## Efficiency/Financials Proposition

### Cost of acquiring/servicing

#### Typical gaps/challenges in traditional players

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.

#### Potential FinTech value proposition

Digital application and processing of credit lowers the operating costs although the acquisition cost can be initially high.

### Risk based pricing/fees & charges

#### Typical gaps/challenges in traditional players

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 .

#### Potential FinTech value proposition

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.

## Risk Proposition

### Data security

#### Typical gaps/challenges in traditional players

Traditional lenders deploy old age technology which can potentially be open to breaches.

#### Potential FinTech value proposition

FinTechs can potentially leverage new and developed technology e.g. block chain for protection of digital data.

### Customer risk

#### Typical gaps/challenges in traditional players

Traditional lenders are risk averse and are bound by credit risk policy which limit credit to some customers.

#### Potential FinTech value proposition

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).



## Value Proposition – Payments & Savings

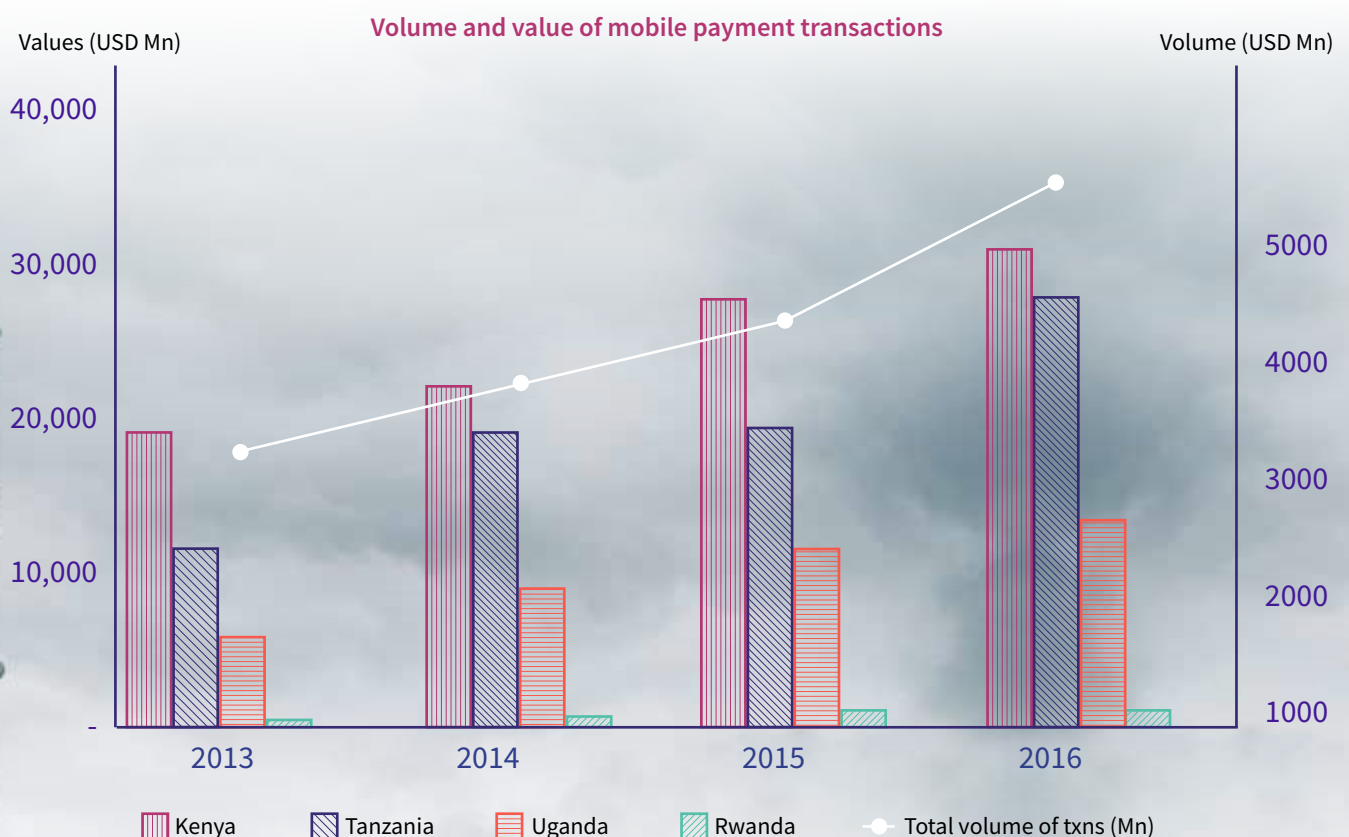
**The value and number of mobile transactions in East Africa have grown rapidly at a CAGR of 24% and 26% respectively**

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.



Source: CBK, BoT, BoU, NBR

NB: the bar chart represents total value per country



Mobile payments are however mainly used by the lower income segments as illustrated by the low average size of mobile transactions.

#### Key payment statistics, 2016

	Particulars	Cheques	Cards	Mobile
Kenya	No. of Txns (Mn)	19.4 (1%)	216.2 (12%)	1,526.1 (87%)
	Txn Value ( USD Mn)	26,348.5 (36%)	13,965.2 (19%)	33,555.8 (45%)
	Avg. size of Txn (USD)	1,358.2	64.6	22.0
	No. of Txns/Acct/Year	-	14.6	52.4
	3 Year CAGR (value)	4.8%	-3.1%	20.8%
Tanzania	No. of Txns (Mn)	1.6*(0.1%)	72.7 (4%)	1,677.0 (96%)
	Txn Value ( USD Mn)	2,910.7* (8%)	5,249.0 (15%)	27,012.0 (77%)
	Avg. size of Txn (USD)	1,819.2	72.2	16.1
	No. of Txns/Acct/Year	-	24.3	98.5
	3 Year CAGR (value)	-15%	13.1%	27%
Rwanda	No. of Txns (Mn)	0.3 (0.1%)	9.8 (5%)	205.7 (95%)
	Txn Value ( USD Mn)	874.0 (32%)	578.9 (21%)	1,268.9 (47%)
	Avg. size of Txn (USD)	2,913.3	59.1	6.2
	No. of Txns/Acct/Year	-	13.1	21.1
	3 Year CAGR (value)	0.3%	18.3%	46.6%

Source: CBK, BoT, BoU, NBR

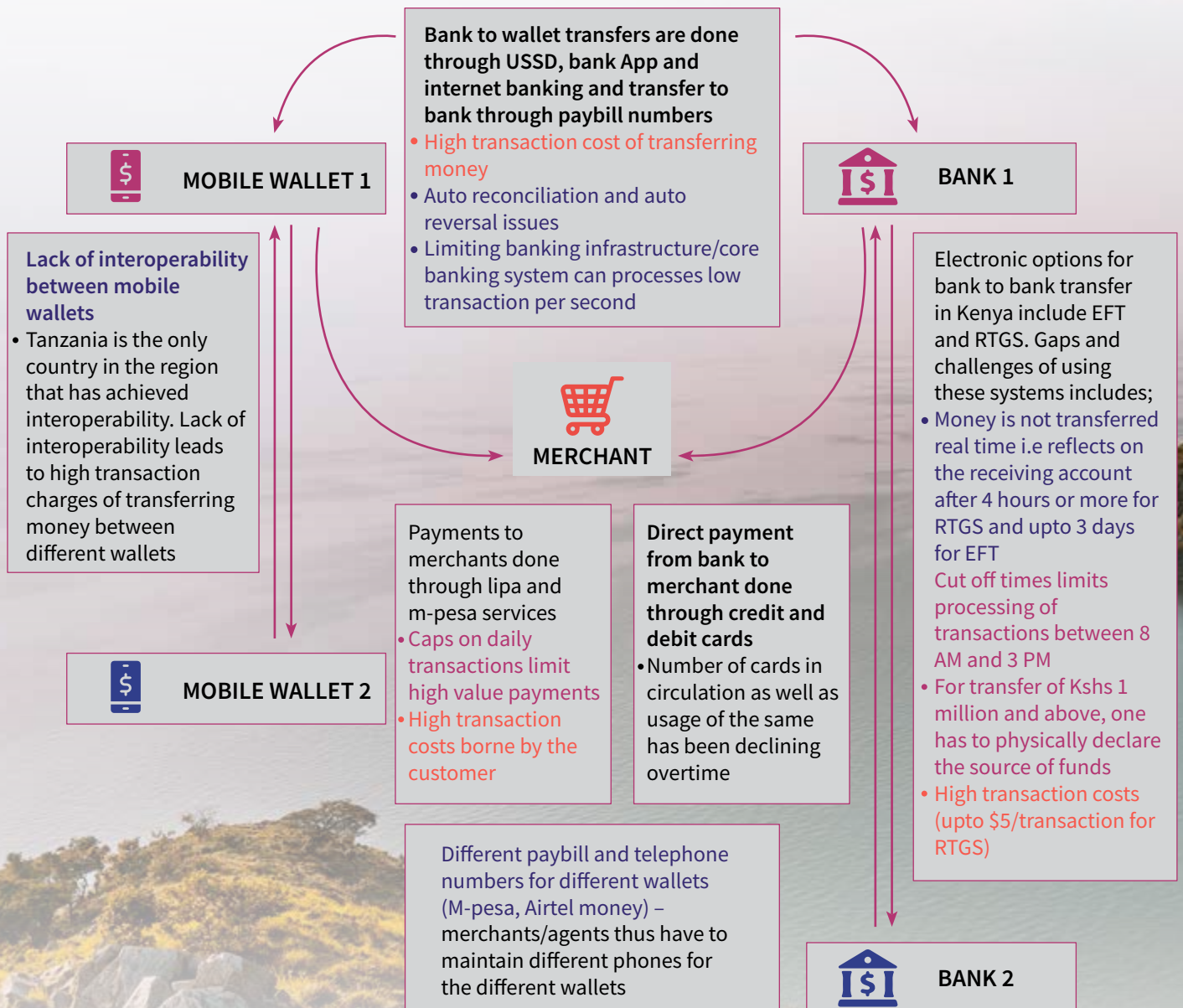
\*2015 Data

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 exists which presents opportunity for FinTechs. These gaps are brought about by technology, regulatory and cost restrictions

Kenya payment processing across various channels



■ Technology constraints

■ Regulatory constraints

■ Cost constraints

**Payments aggregator** enable the merchant to receive payment through various channels

## 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

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

Source: World Bank, CBK, BoT, BoU, 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**

	Annual Household Income	Number of Households '000'	Households with bank accounts '000'	Banking Penetration	Key players
Upper middle income & above	2%	245	167	68%	Banks
Middle income	10% USD 10,000	1,127	439	39%	Gap
Low income	10% USD 5,000	1,137	284	26%	FinTechs
Poorest	79% USD 1,000	9,248	925	10%	MFI, Saccos

Sources: 2016 Kenya Economic Survey (KNBS), NKC African Economics, FSD Kenya 2016 household survey, Intellicap Analysis



## FinTechs' value proposition

### Revenue Growth Proposition

#### Access To New Markets

##### Typical gaps/challenges in traditional players

Low banking penetration consequently means low penetration of cards and cheques. Use is therefore limited especially in rural areas.

##### Potential FinTech value proposition

FinTechs are able to capture new markets and segments by facilitating payments and savings through mobile wallet.

#### New Segments Targeted

##### Typical gaps/challenges in traditional players

Lack of enough branch distribution limits savings.

##### Potential FinTech value proposition

#### Cross Sell

##### Typical gaps/challenges in traditional players

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

##### Potential FinTech value proposition

FinTechs provide higher touchpoints and customer interfacing providing a high opportunity to cross sell.

#### Product innovation/customisation

##### Typical gaps/challenges in traditional players

Few innovative savings product exist.

Lack of motivation to save/poor savings culture.

##### Potential FinTech value proposition

Innovative mobile wallets that enable consumer saving as well as offer incentives to save; gamification e.g. save to win.

Use of the digital technology enables development of mobile POS, QR code enabled mobile apps which reduces set up cost.

#### Customer experience/speed

##### Typical gaps/challenges in traditional players

Long turn around times for cheque processing.

Need for branch visits to process payment and savings requests.

Long queues in the branches.

##### Potential FinTech value proposition

Ability to make instant payments to multiple parties at the convenient of your home.

Allows customers to save money that is instantaneously accessible.

## Efficiency/Financials Proposition

### Cost of acquiring/servicing

#### Typical gaps/challenges in traditional players

High cost of maintaining branches/cost of transactions

Opportunity cost for international/ cross boarder payments.

#### Potential FinTech value proposition

Enhanced customer journey with direct integration of systems thereby less cost to serve.

Elimination of middleman through block chain technology/ use of virtual currencies.

For FinTechs, there is near zero cost of transaction for repeat customers.

### Risk based pricing/fees & charges

#### Typical gaps/challenges in traditional players

Limited ability to offer higher interest rates on savings due to high cost structures.

#### Potential FinTech value proposition

FinTechs provide an opportunity to offer higher interest rates on savings due to the low operational costs

## Risk Proposition

### Data security

#### Typical gaps/challenges in traditional players

Traditional players deploy old age technology which can potentially be open to breaches

#### Potential FinTech value proposition

FinTechs enable detection and prevention of risk through development of fraud/risk algorithm as well as enable use of multiple risk/fraud detection algorithms.

Use of technologies like block chain has shown evidence of being more secure.



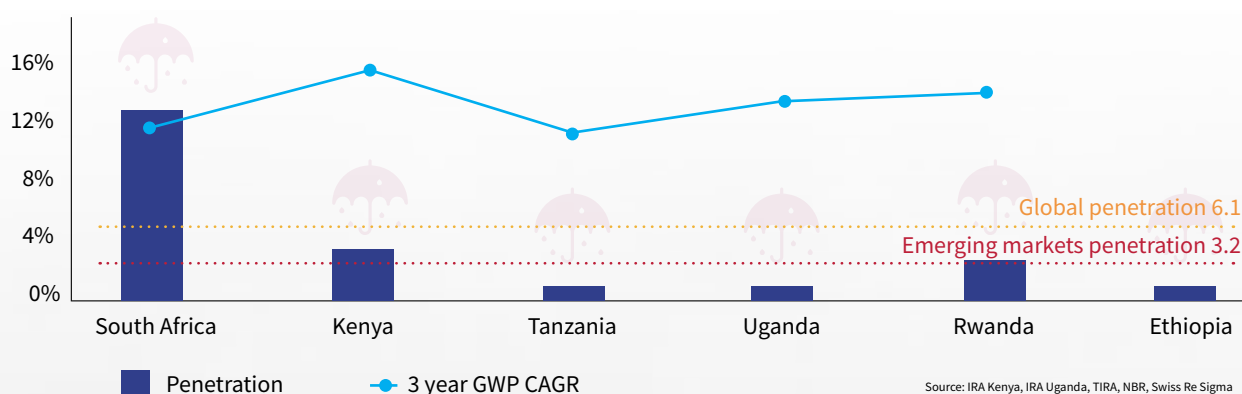
## Value Proposition – Insurance

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

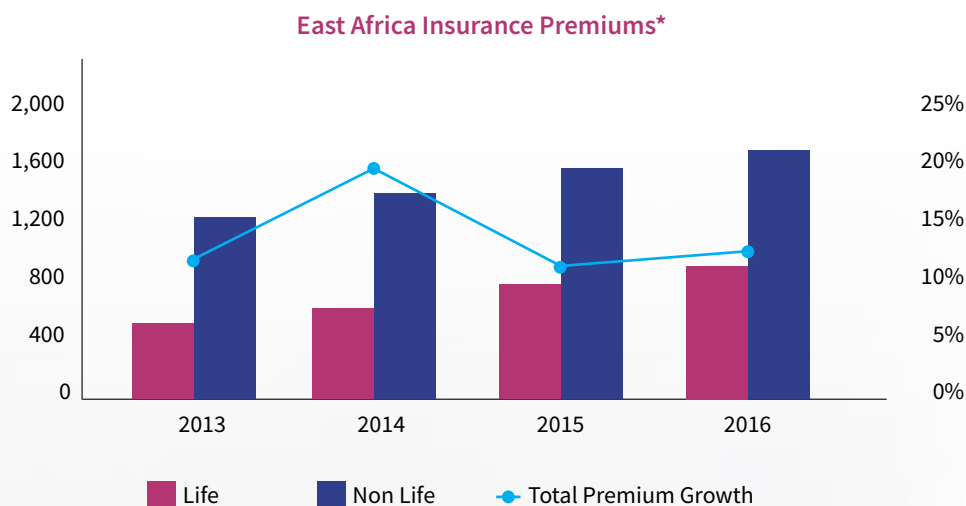


Retention ratio	80.5	92.3	56.7	71.5	-
Assets/ broker (\$ Mn)	25.9	29.1	2.7	9.6	-
Assets/Insurance co (\$ Mn)	101.7	25.5	10.7	11.5	-

**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.



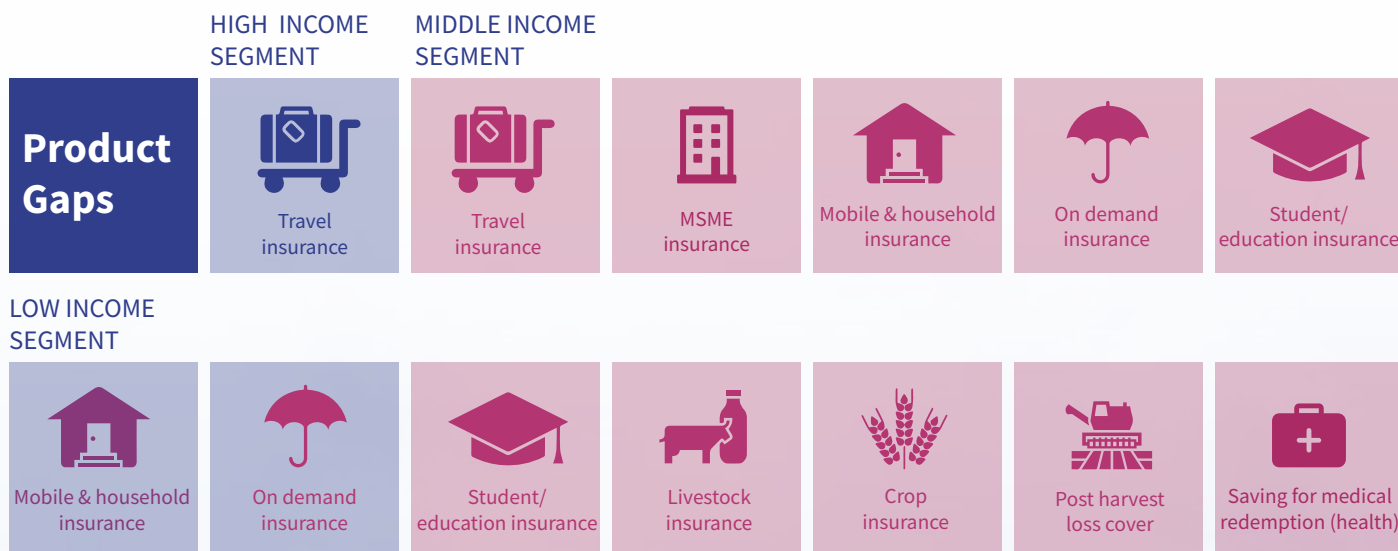
\*Data excludes Ethiopia  
Source: IRA Kenya, IRA Uganda, TIRA, NBR





## Existing Gaps

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



### 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.



### 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.



### 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.



### 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

### Revenue/Growth 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.

##### Potential FinTech value proposition

FinTechs are able to offer low premium micro insurance products.

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

#### 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.

## Efficiency/Financials Proposition

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### Cost of acquiring/servicing

#### Typical gaps/challenges in traditional players

High insurance distribution and underwriting costs which translates to high premiums.

#### Potential FinTech value proposition

Use of mobile technology lowers the distribution and underwriting costs lowering the premium costs.

### 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.

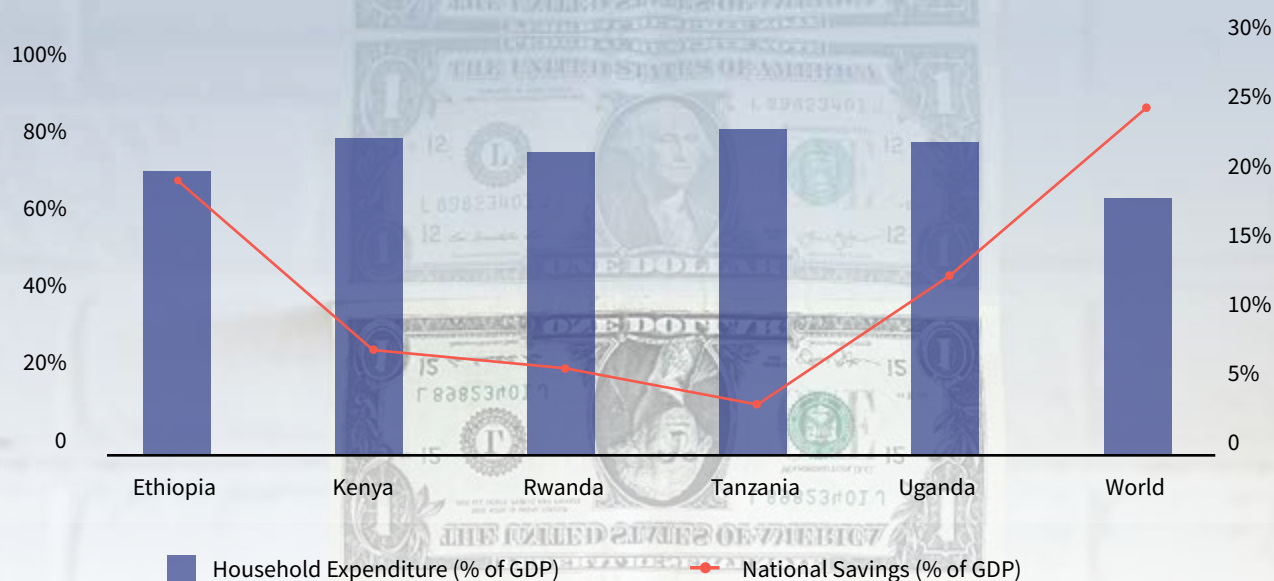


## Value Proposition – Investments

**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.

Household expenditure and national savings (% of GDP), 2016



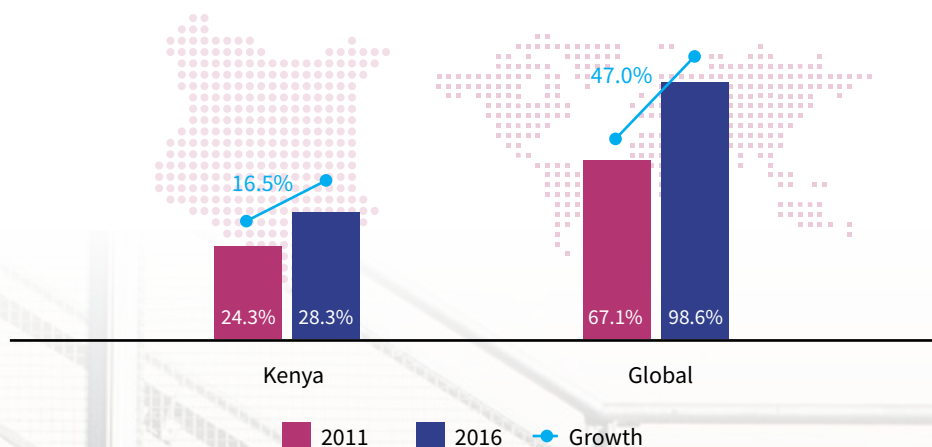
Source: World Bank, FinAccess Survey Kenya, KNBS

**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**



**Savings/investments channels used by households in Kenya**



**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

### Revenue /Growth Proposition

#### Access To New Markets

##### Typical gaps/challenges in traditional players

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

##### Potential FinTech value proposition

FinTechs enable sell of investment products through mobile phones which help access new markets

#### New Segments Targeted

##### Typical gaps/challenges in traditional players

High minimum investment amount especially on government bonds which locks out middle and low income earners.

##### Potential FinTech value proposition

Ability to offer low cost investment products (e.g Mbao, pension scheme for the informal sector in Kenya) and M-Akiba (Government bond).

P2P platforms have the potential to offer an investment platform with high returns for local 'small' investors.

#### Cross Sell

##### Typical gaps/challenges in traditional players

Currently savings and loans are sold independent of investments and thus there is low motivation to invest.

##### Potential FinTech value proposition

FinTechs have the potential to offer a consolidated market place for financial products including investments.

Mobile wallets provide a platform where one can save for specific investment and get rewarded when goals are achieved.

#### Product innovation/customisation

##### Typical gaps/challenges in traditional players

No customisation of investment products across different customer segments  
Standard investment management advice across customer segments

##### Potential FinTech value proposition

FinTechs offer digital platforms driven by algorithms which perform automated portfolio allocation and provide investment recommendations to the customers.

#### Customer experience/speed

##### Typical gaps/challenges in traditional players

Manual, and long application process of obtaining investments e.g. upto 3 months to get a mortgage.

##### Potential FinTech value proposition

FinTechs enable instantaneous purchase, and sell of investments.

Using blockchain technology through smart contracts will make the mortgage process quicker and affordable.

### Cost/Efficiency/Financials

#### Cost of acquiring/servicing/collection

##### Typical gaps/challenges in traditional players


High investment facilitation/application cost.

##### Potential FinTech value proposition

Minimal cost of acquiring investments.



# The FinTech Ecosystem in East Africa



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.

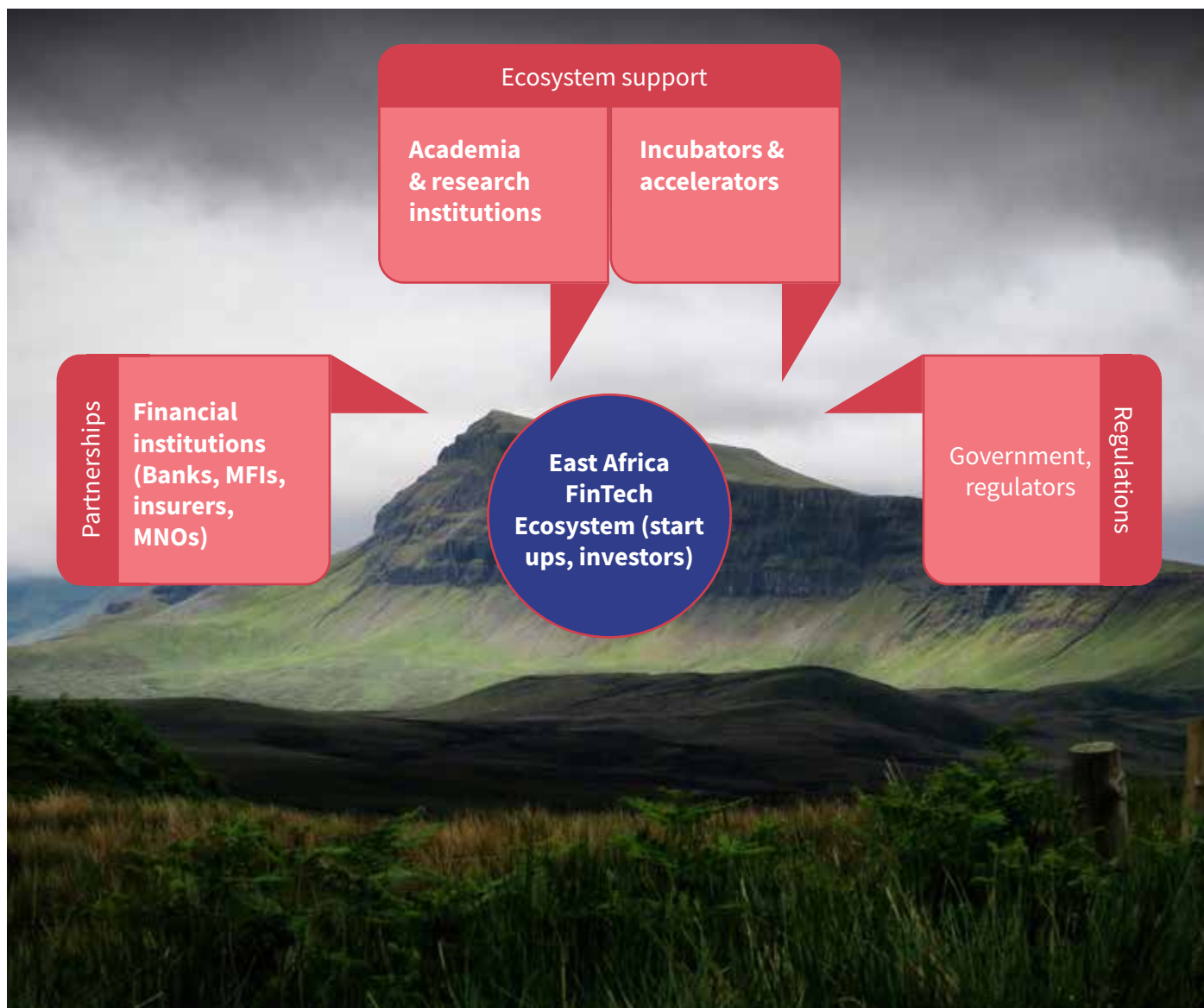
While East Africa has experienced a rise in tech hubs and co-working spaces over the years, a huge gap exists in incubation and acceleration services which are critical in start-up growth. Start-up support infrastructure in the region therefore requires significant beefing up and regional expansion to 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.

# EAST AFRICA FINTECH ECOSYSTEM

**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.

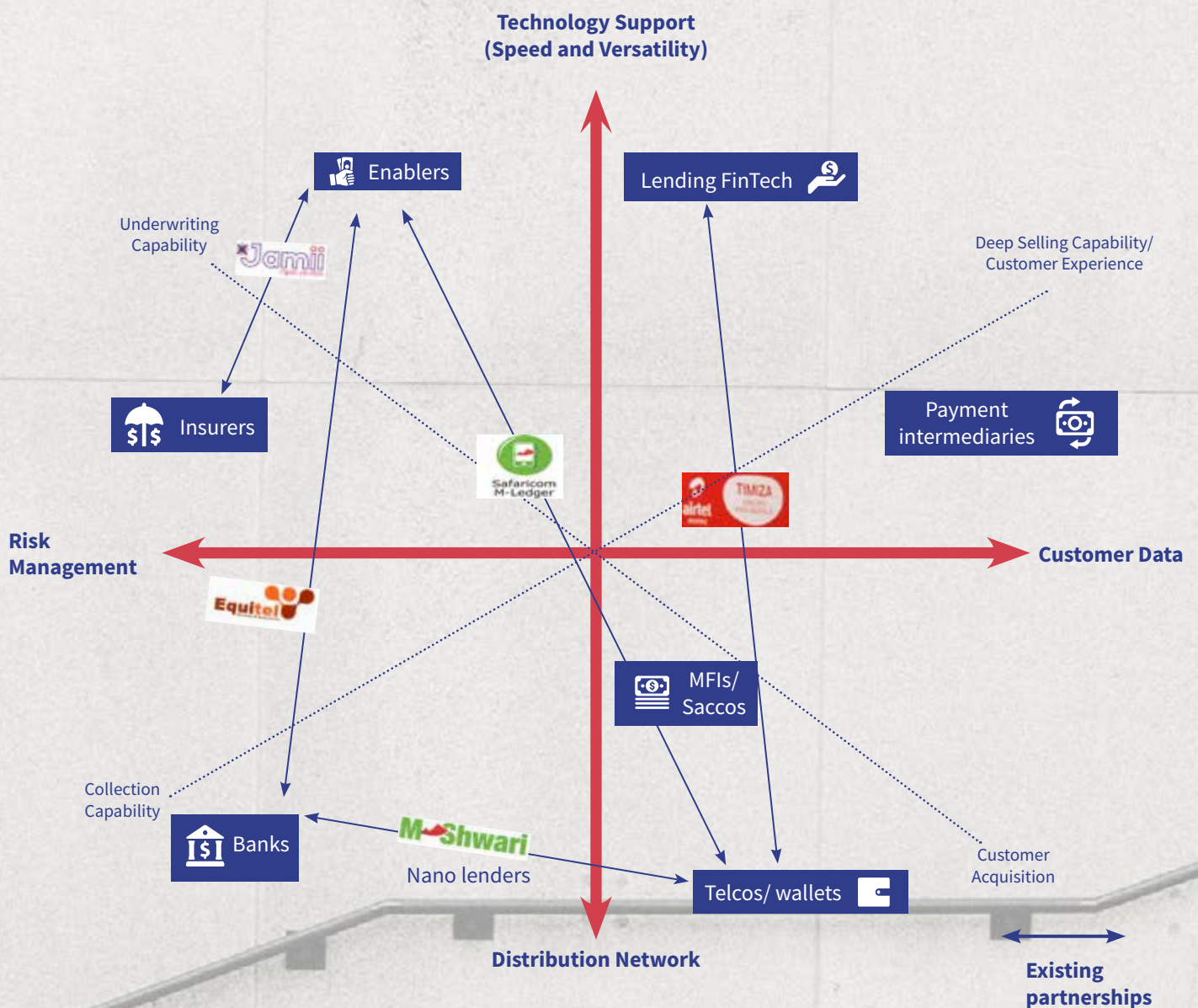


# PARTNERSHIP DIMENSIONS

**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

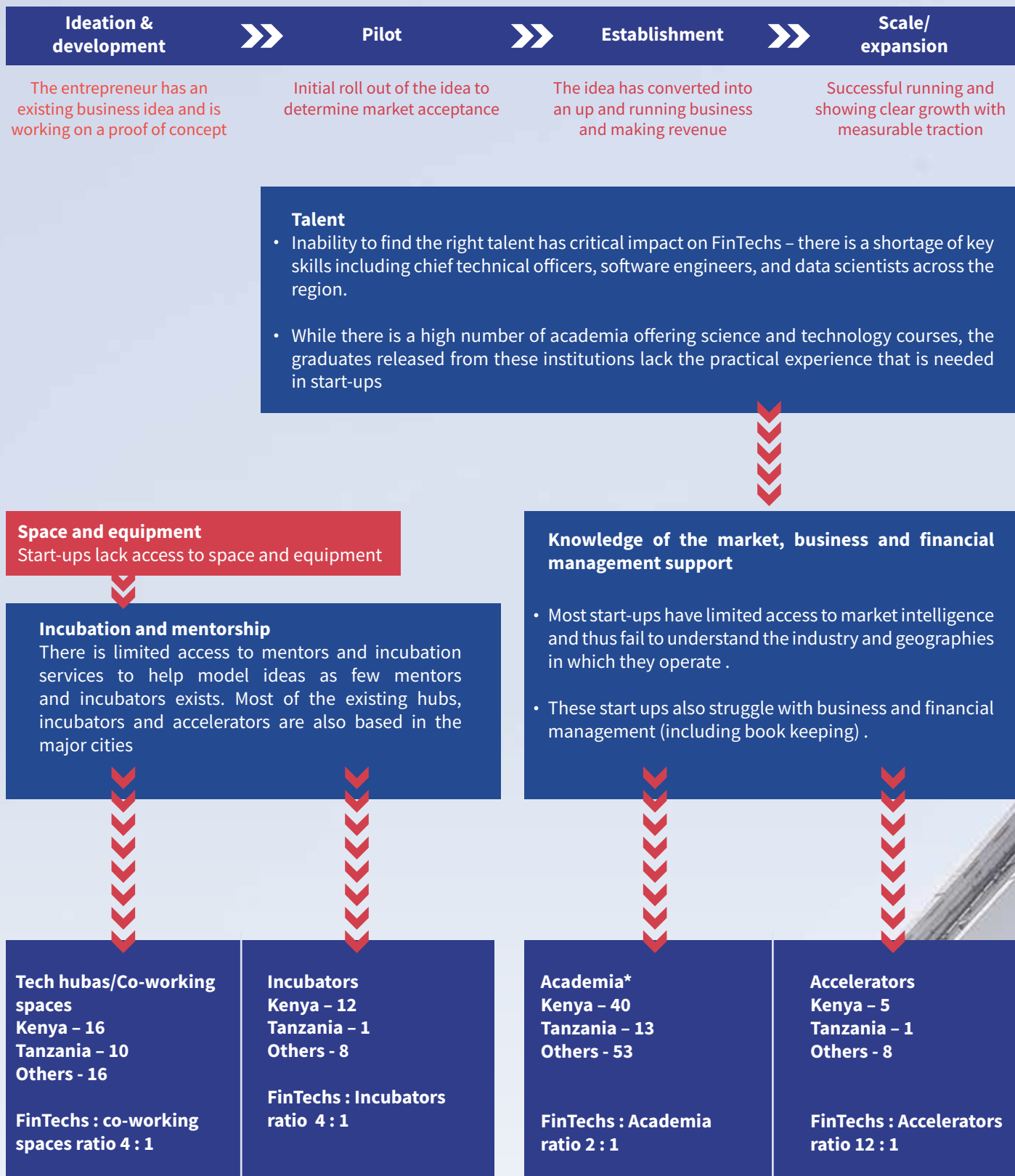


Banks will develop internal capabilities to be able to deliver their services/products digitally - This can include banks establishing subsidiary FinTechs to help them navigate through the stringent regulatory requirements that govern the banks

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



■ High Gap   ■ Medium gap

\*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.



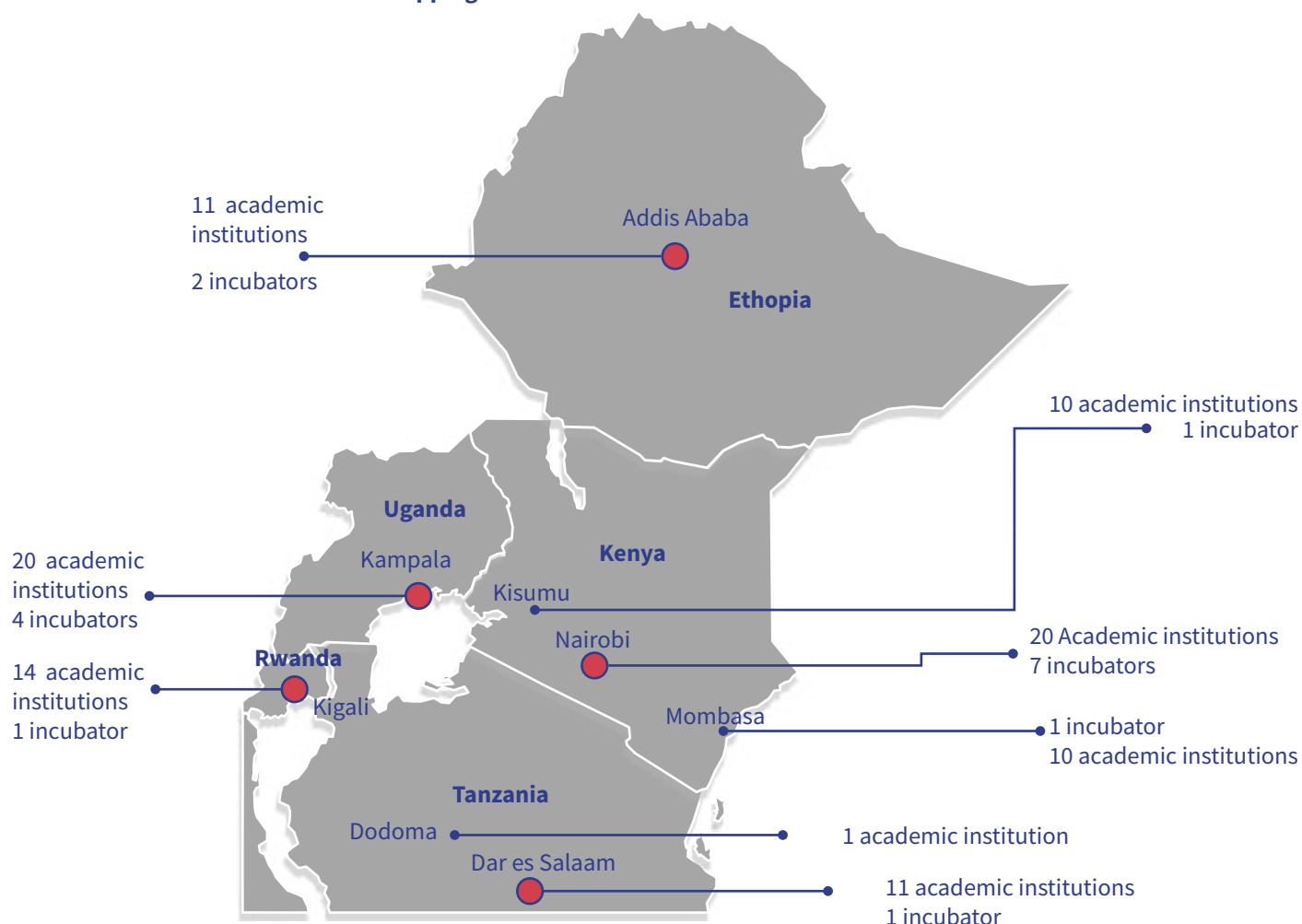
## Academia

**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	Tanzania	Uganda
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)	Buni (C,I, 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)	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)
	Rwanda	Ethiopia
	Klab (C) Impact Hub Kigali (C) Think technology incubator (C,I) African Entrepreneur Collective (A) FabLab (C)	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 encourage 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 extend the regulations affect FinTechs.





POSITIVE DRIVERS		
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
NEGATIVE DRIVERS		
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	

Payments
PFM
Lending
PFM

# 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.

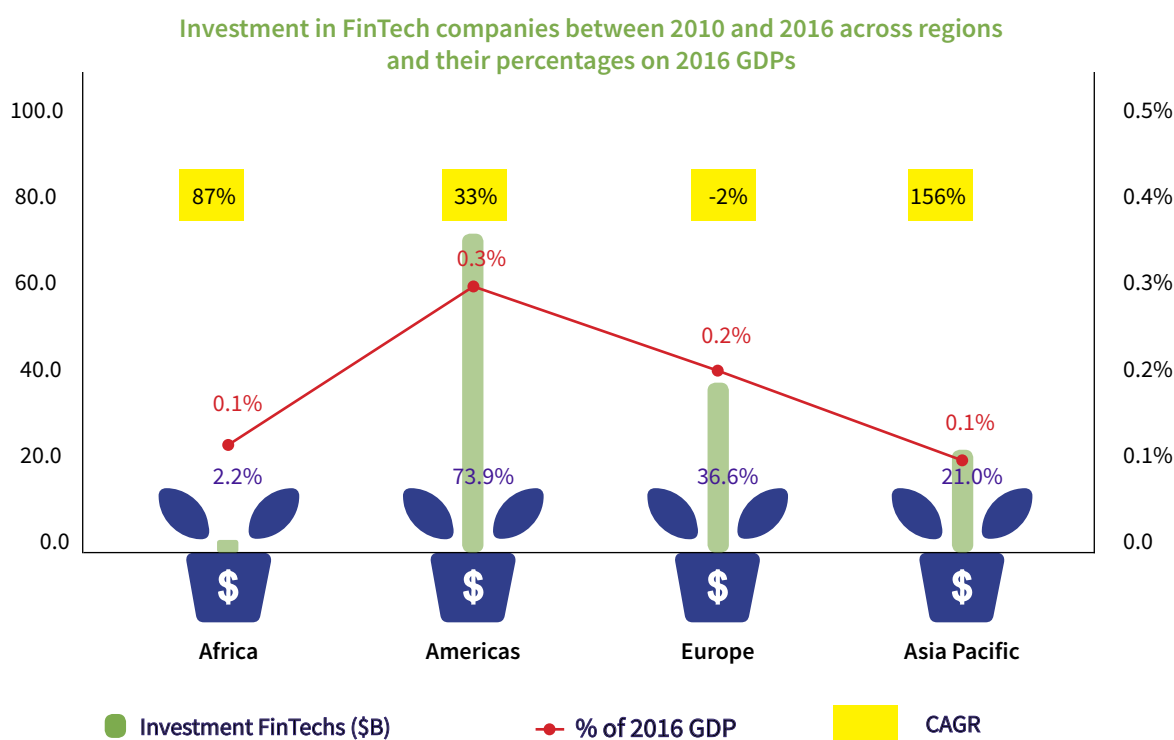
# FUNDING IN FINTECHS: A GLOBAL VIEW

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.

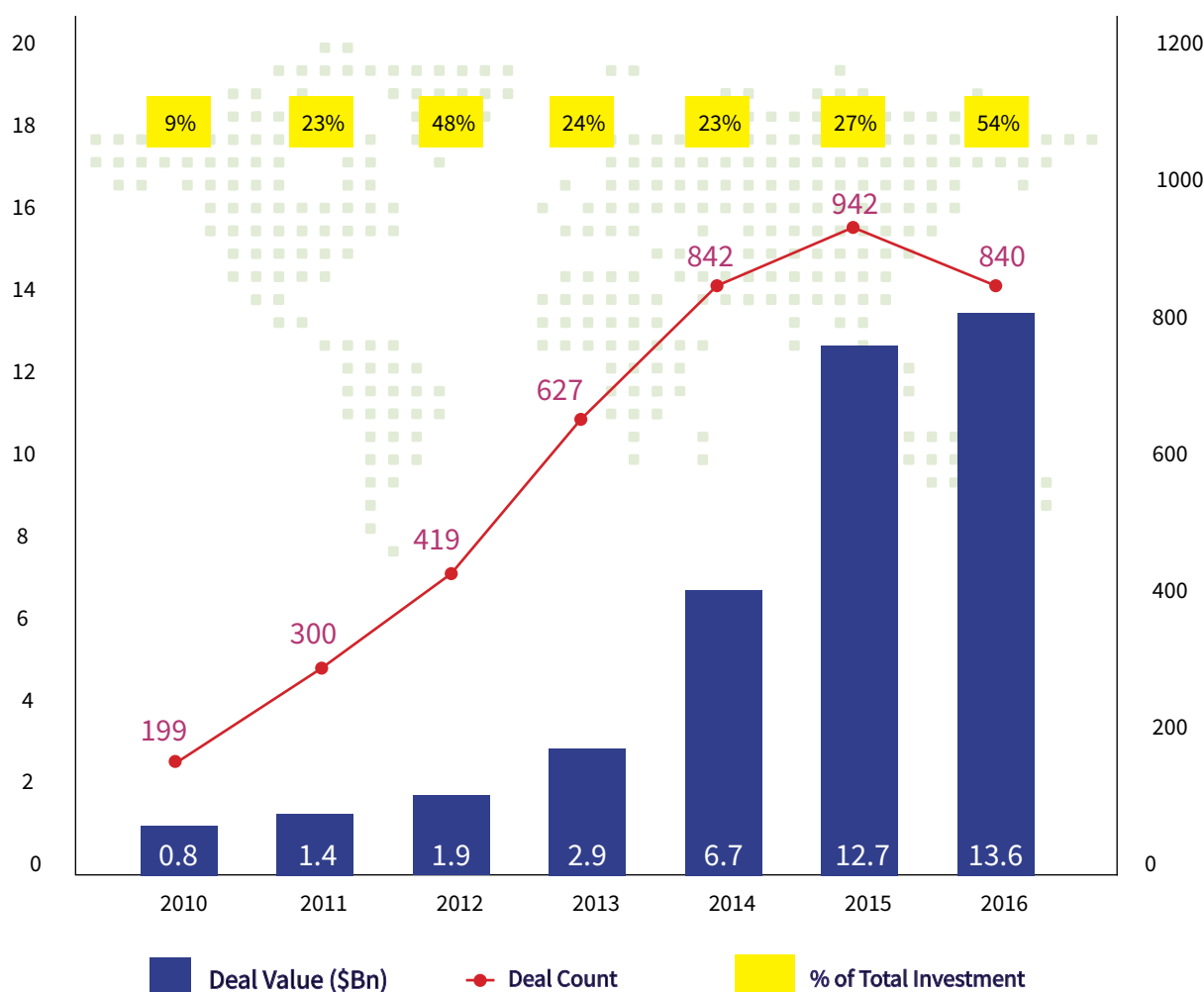
**Total global investment in FinTech companies has grown at a rate of 19% over the past six years. However, it slowed down by 48% between 2015 and 2016.**

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)**

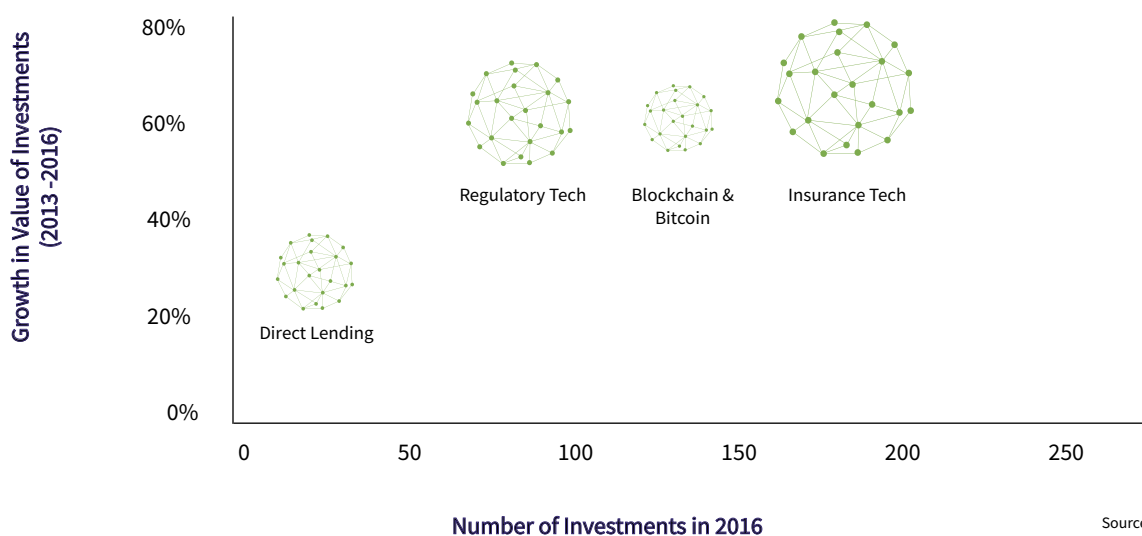




**Payment FinTechs have seen increased interest by funders recently. Investments into bitcoin and blockchain-related FinTechs has risen by a CAGR of over 200% in the past five years.**

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.

**Value of investment, investment growth and number of investments into FinTech sub-segments**



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.

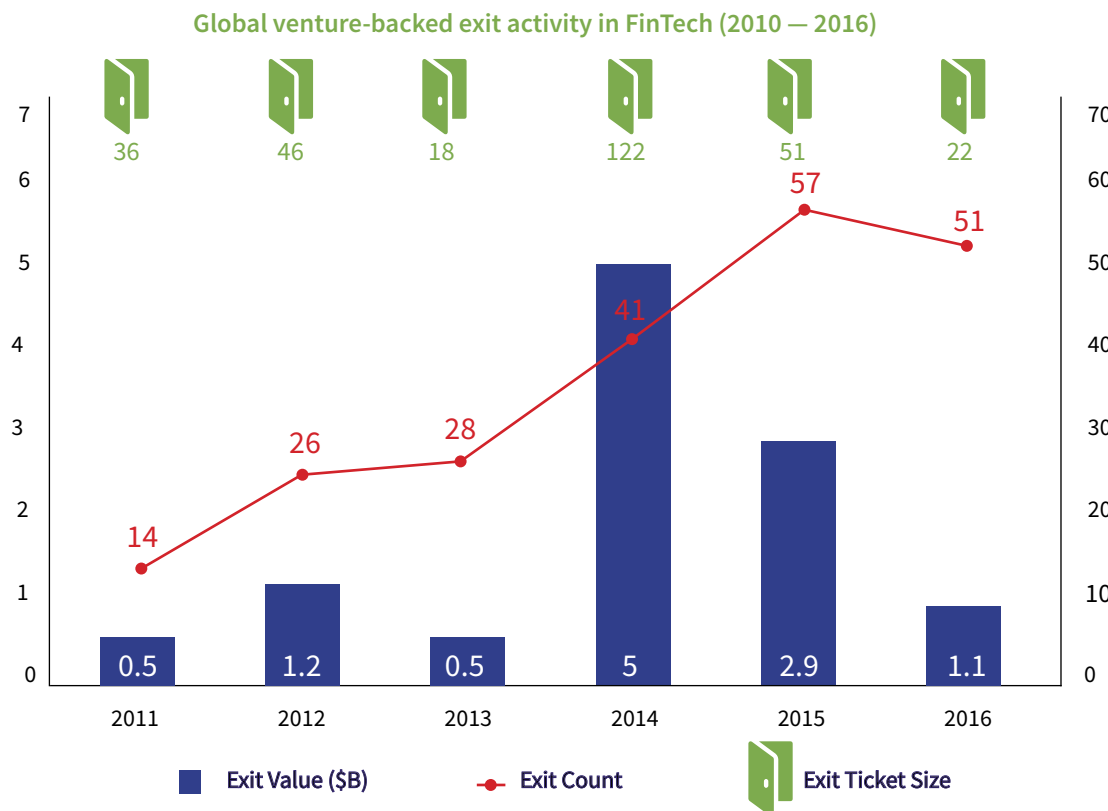
Average deal share by funding mechanism globally  
(by number of deals closed by FinTechs)



Sources: CB Insights, KPMG, Intelicap Analysis

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.

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.

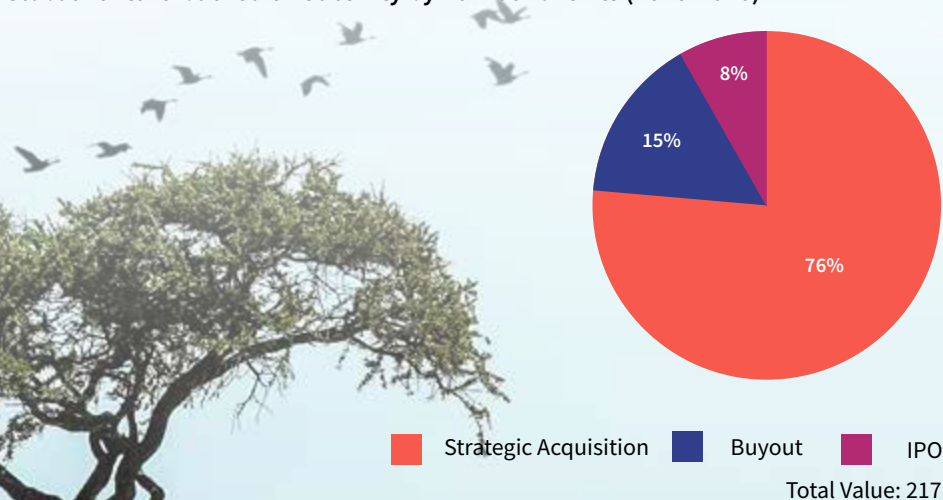


Over the last 2 years while the exits have gone up by ~20%, the exit values have dropped by ~80% due to a sharp decline in the exit ticket sizes.

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.

Global venture-backed exit activity by number of exits (2010-2016)

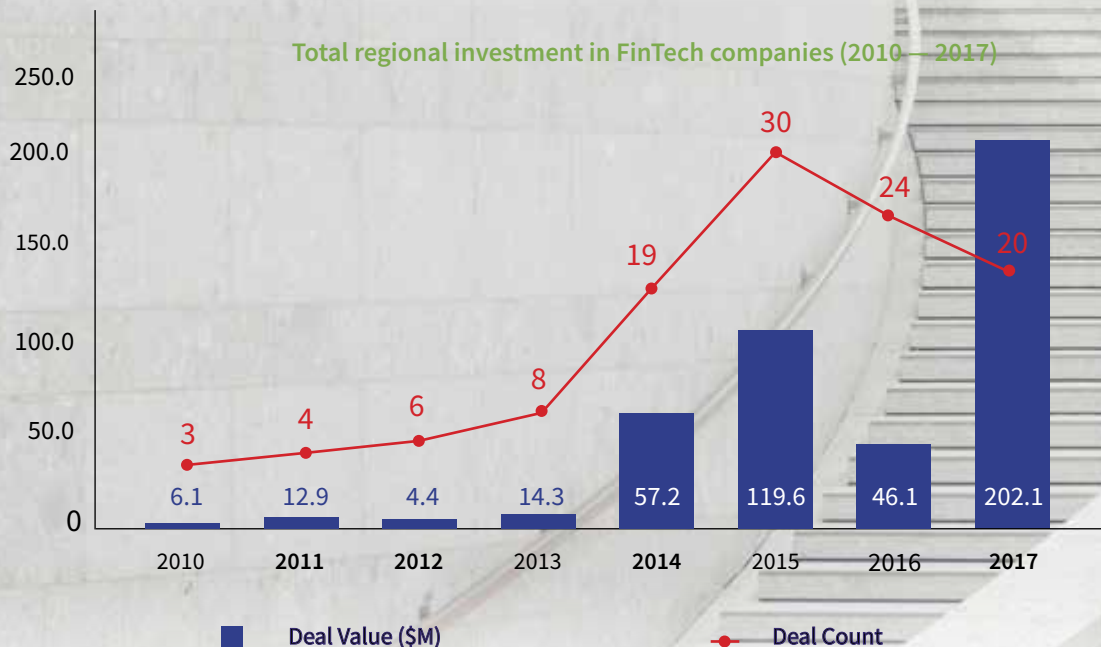


# FUNDING IN FINTECHS: A REGIONAL VIEW

**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.



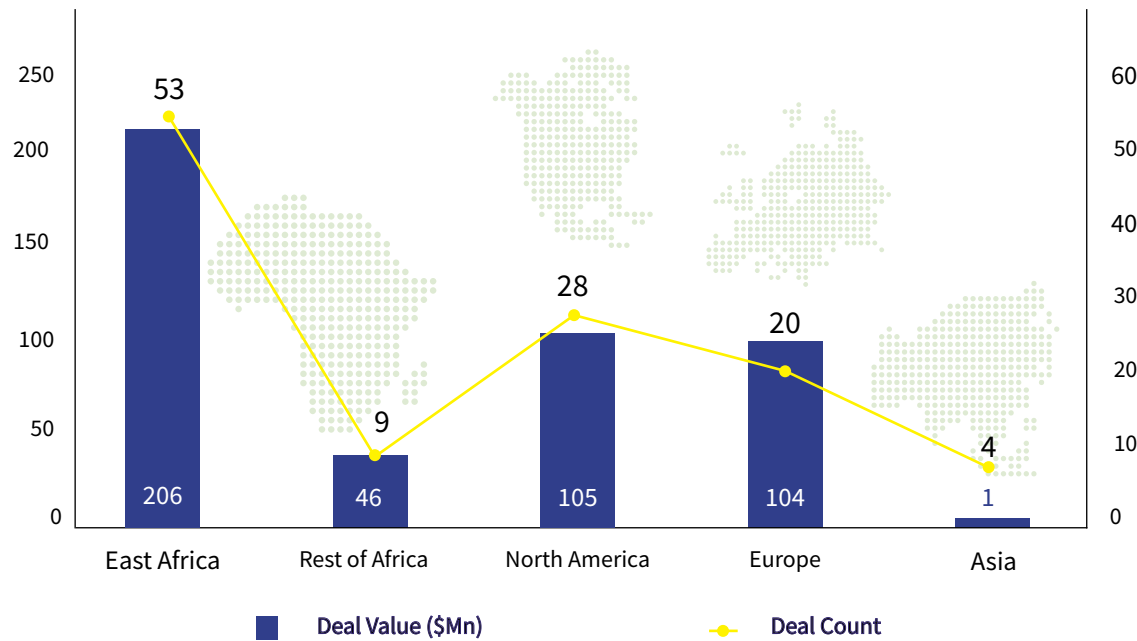
**55% of startup investment between 2010 and 2017 went to FinTechs established outside of East Africa.**

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.



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



**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, Greycroft 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.



**\$15 million**

equity investment in Direct Pay Online in 2016 and 2017 by Apis Partners.



**\$19 million**

equity investment in M-KOPA by Generation Investment and 3 other investors in 2015.

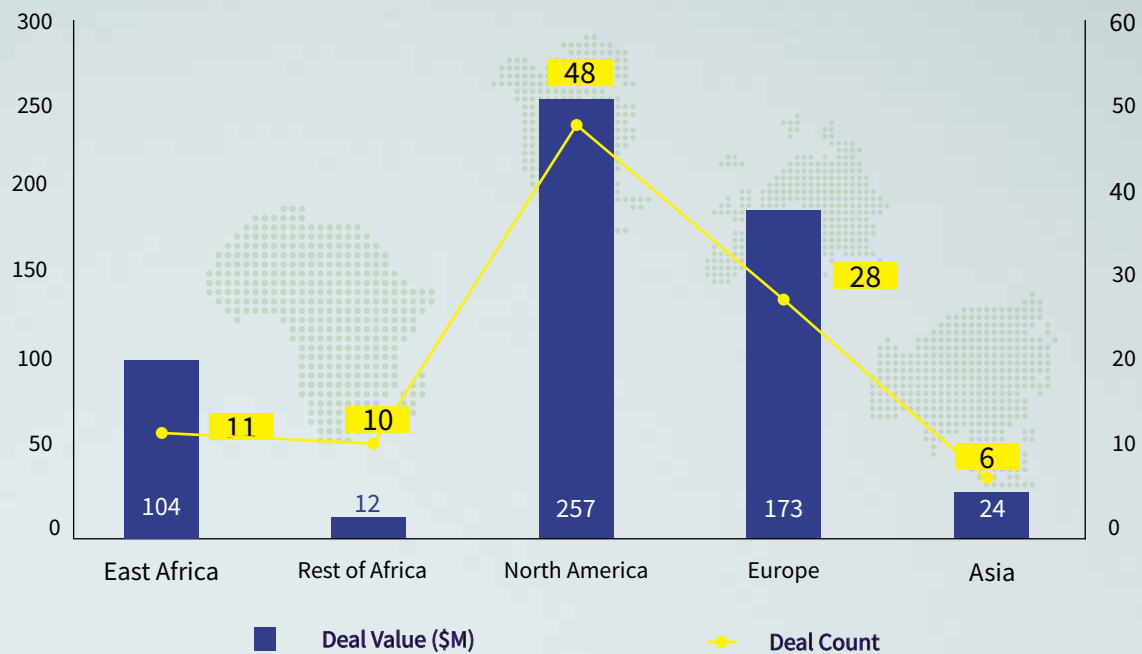


**\$10 million**

series D investment by Helios Investment Partners in Off Grid Electric in 2016.

Venture capitalists from the rest of the European countries such as FinnFund (Finland), Kinnevik AB (Sweden), LGT Venture Philanthropy (Switzerland), Freemont Management (Switzerland), responsibility (Switzerland) and Aslanoba Capital (Sweden) invested more than \$100 million through different mechanisms in East Africa in the past seven years.

Source of FinTech investments by Geography (2010 — 2017)



**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

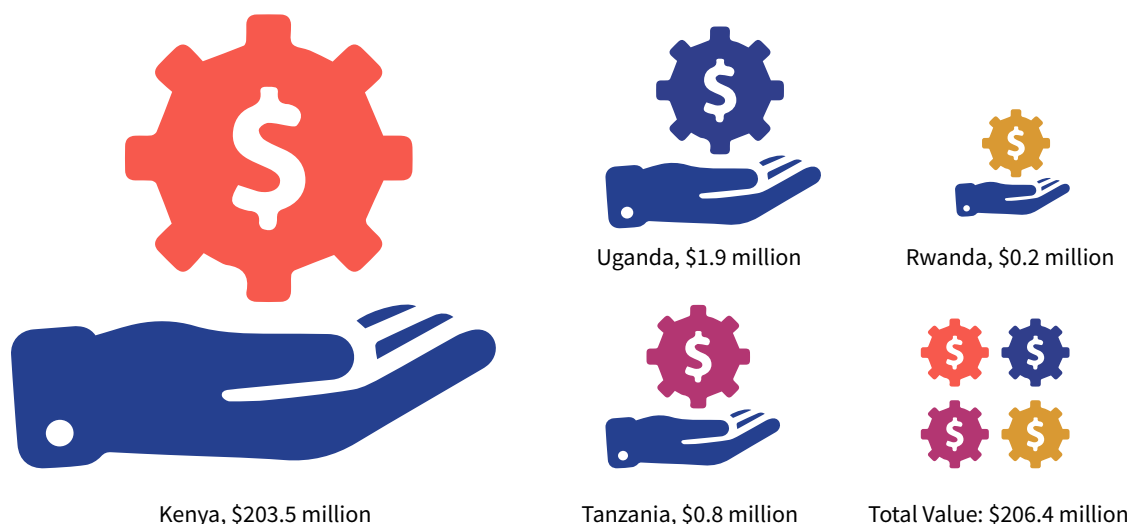


**FinTechs established out of the Kenyan boundaries have struggled to raise funding as opposed to their counterparts.**

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)**



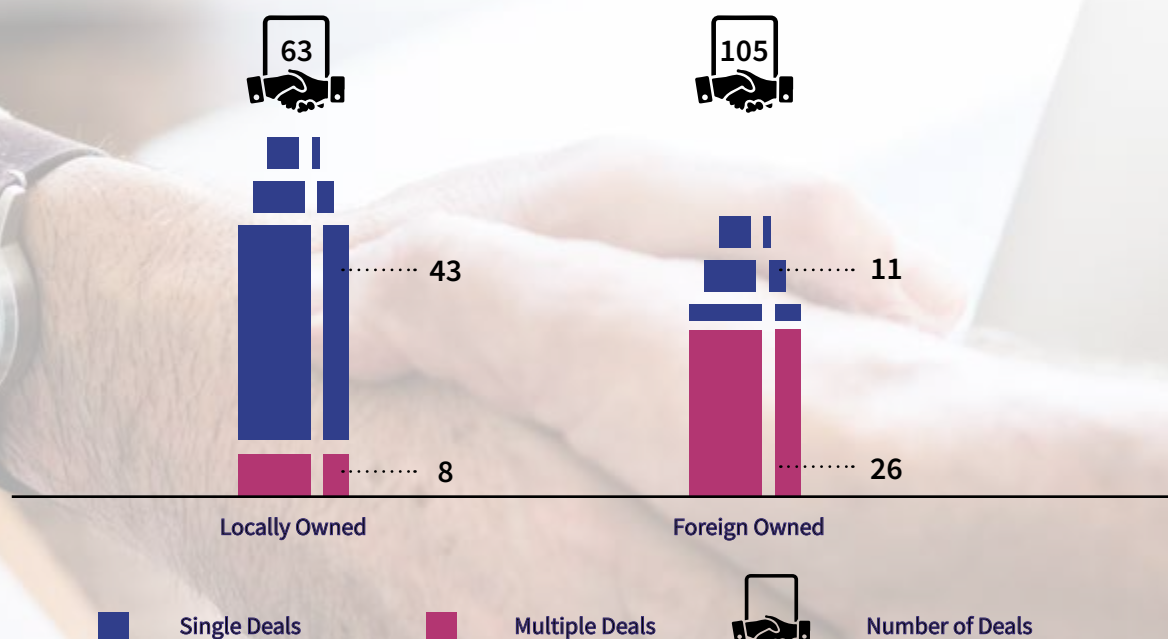
Sources: Crunchbase, Intellect Analysis

**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.

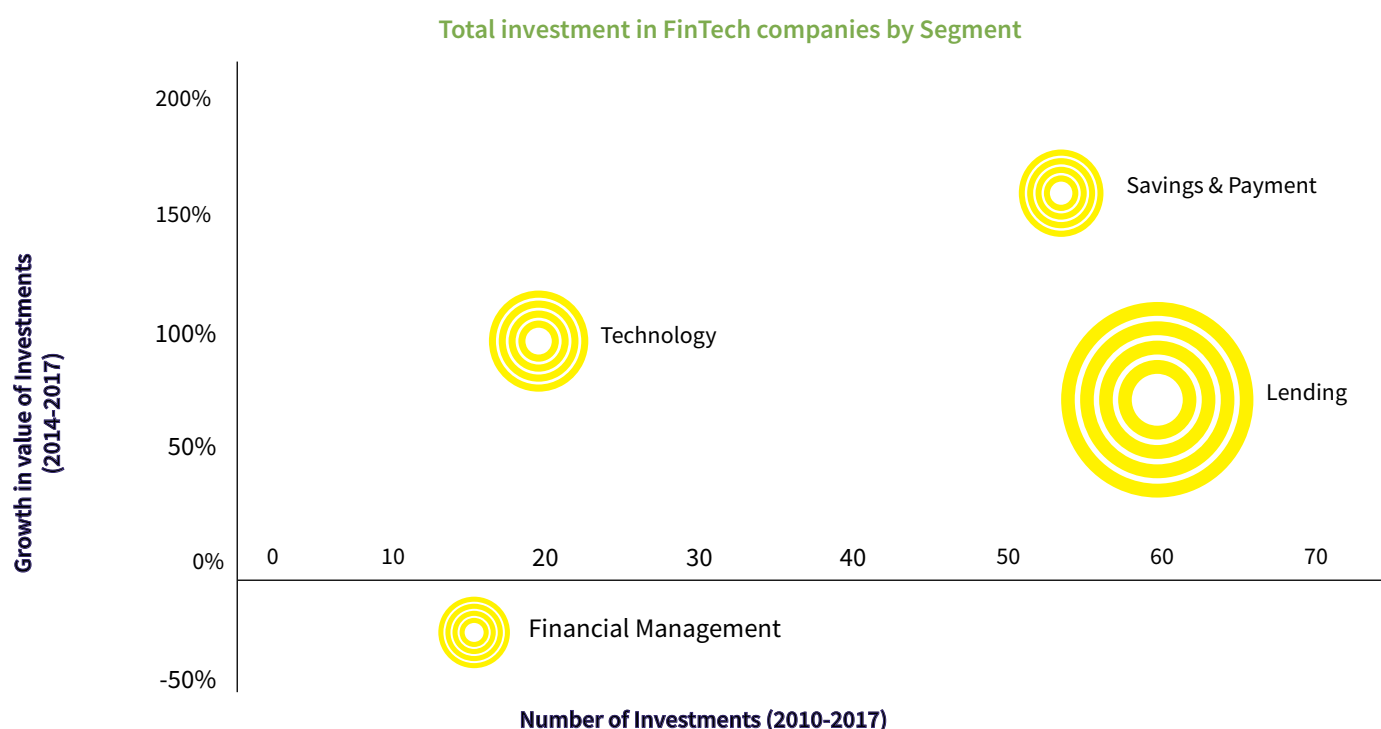
**Total number of FinTech companies that have raised funding (2010 – 2017)**



## 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.**

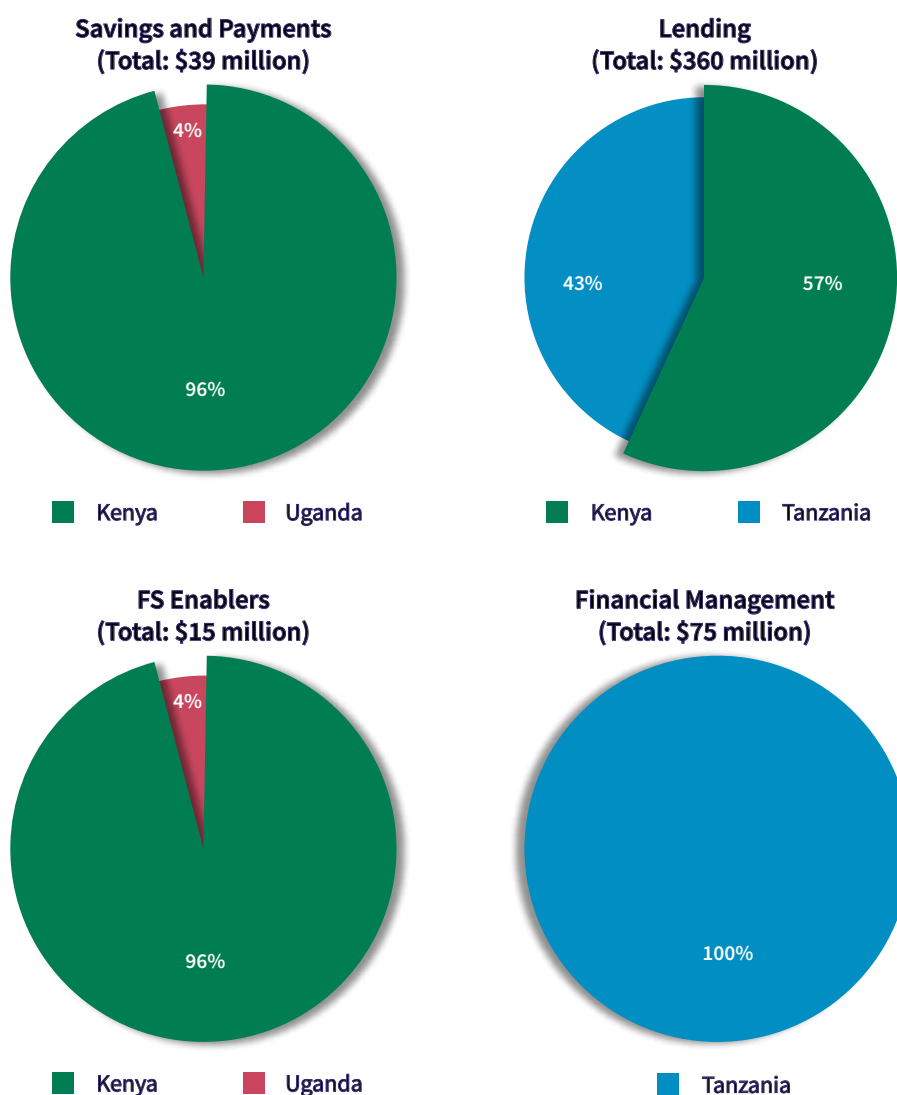
The funding drive witnessed in the recent past can be attributed to the introduction of P2P lending FinTechs such as Lendable, Tala and Branch into the market. Some of the funding also went to FinTechs that use pay-as-you-go models to drive access to off grid energy (such as SunFunder, M-KOPA, Off Grid 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.*



Sources: Crunchbase, Intelicap Analysis





*\*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%).

Total investment in FinTech companies by sector over the last seven years

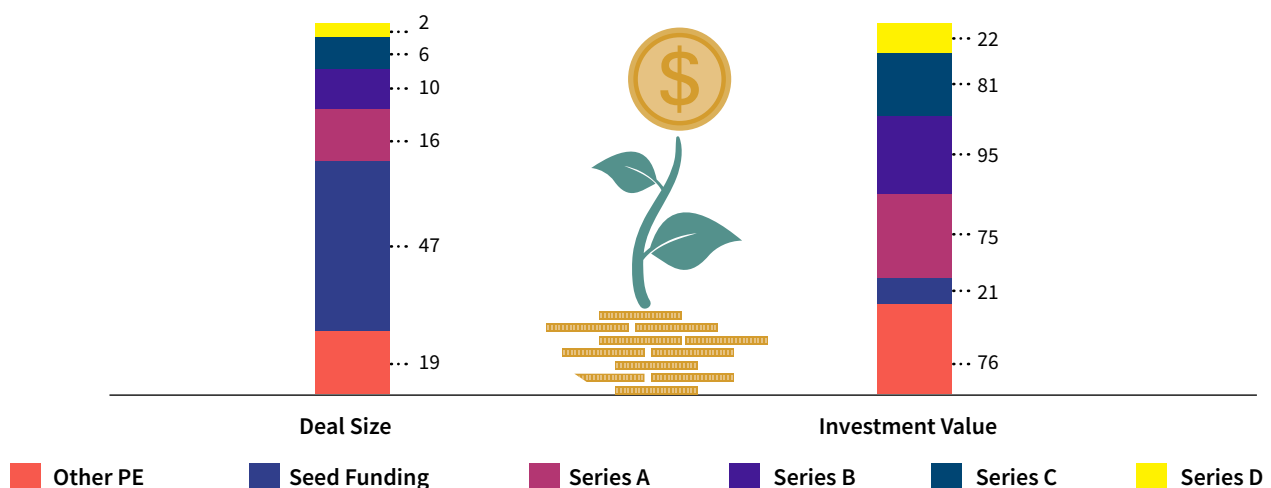
		Number of Deals	Investment (\$Mn)
Financial Services		104	173
Health Care		10	86
Renewable Energy		30	345
Others		25	21

## 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.

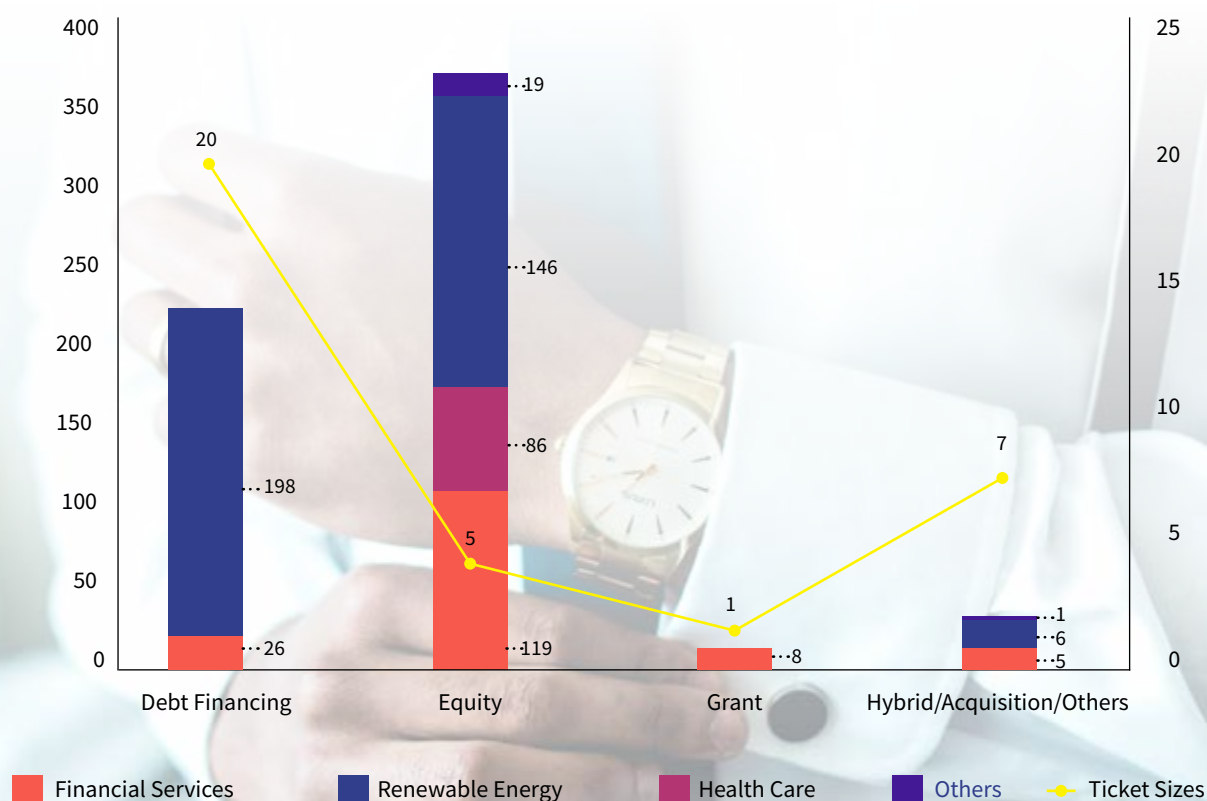
Number of deals and size of investments raised by FinTechs between 2010 and 2017 (Equity Only)



**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.**

Value of deals closed by FinTechs between 2010 and 2017;  
by sector and funding mechanism (\$Mn)



Sources: Crunchbase, Intelicap Analysis

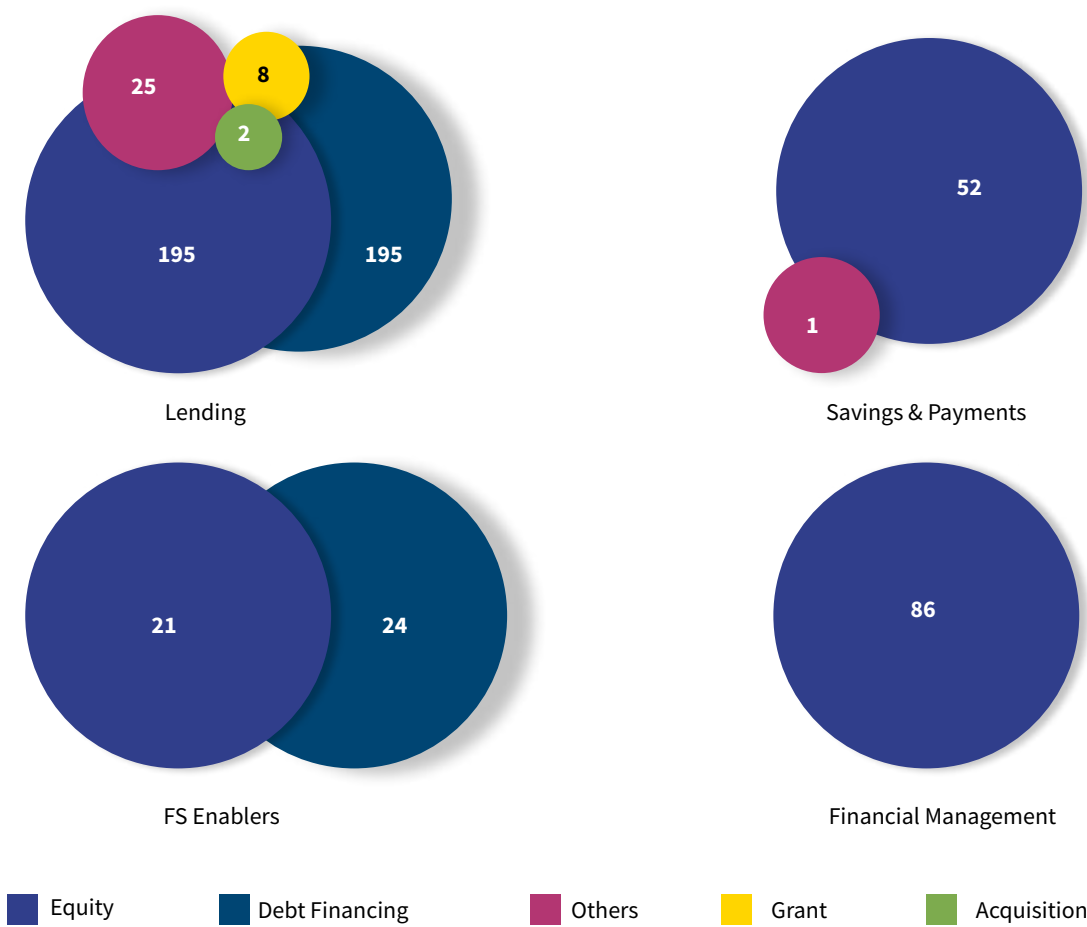
**For companies to have a sustainable business model, they need to have a good balance of debt and equity financing. Across the segments, FinTechs are struggling to raise enough debt funding.**

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)



Sources: Crunchbase, Intellectap Analysis



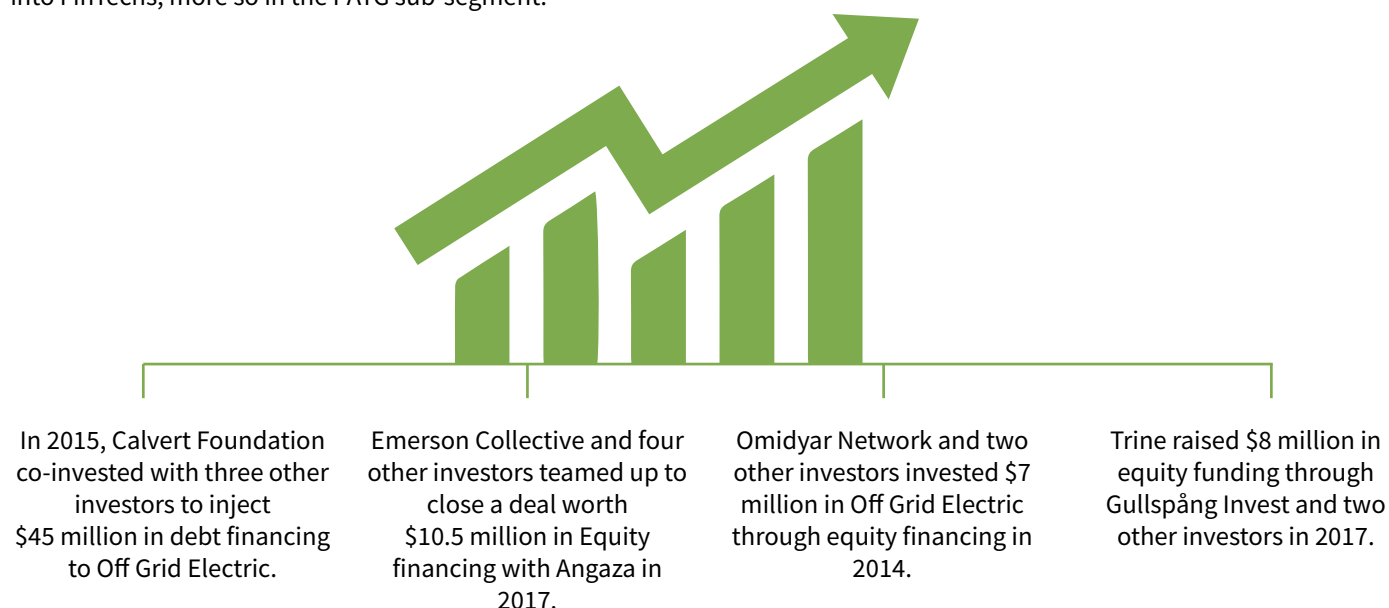


**53% of all funding into FinTechs in the East African region between 2010 and 2017 was made by venture capitalists. However, the average ticket size of funding injected by these capitalists (\$6 million) was lower than the funding made by corporates (\$15 million) and foundations (\$10 million) in the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

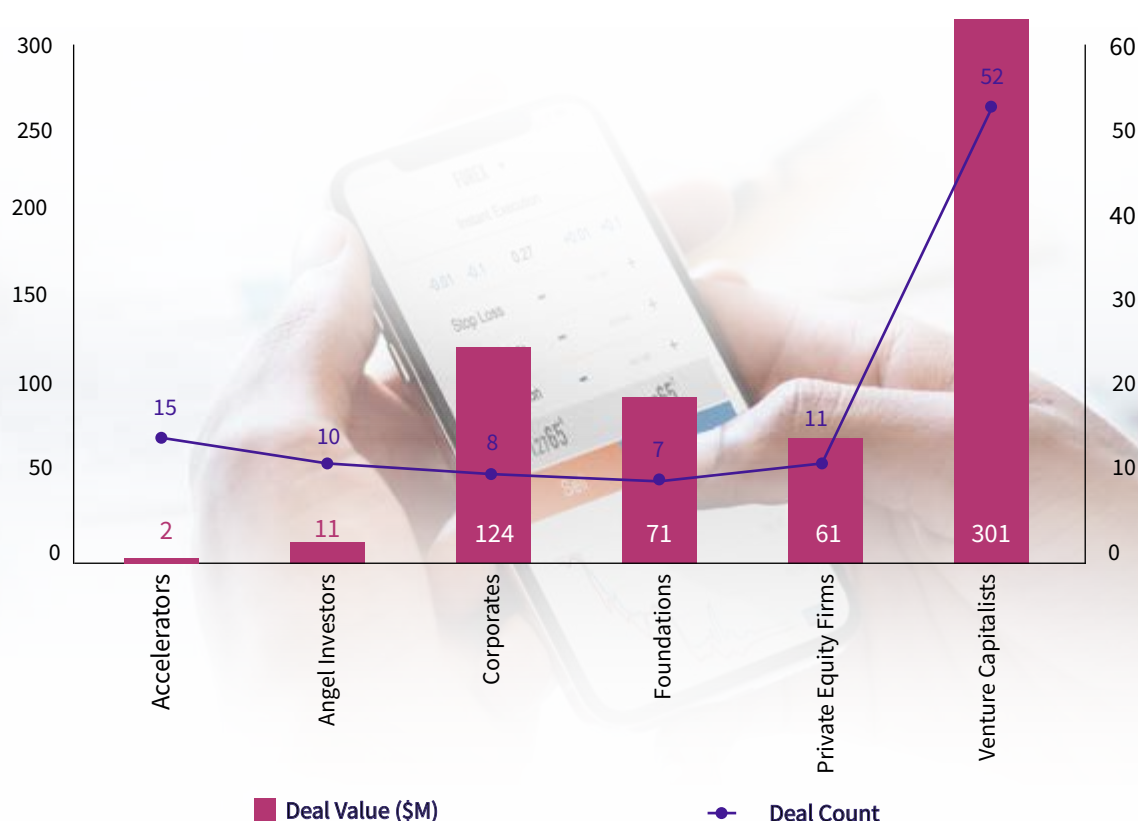
Through corporates such as Stanbic Bank, Commercial Bank of Africa and World Bank, FinTechs have been able to raise large ticket-sized funding mostly through debt financing.

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).

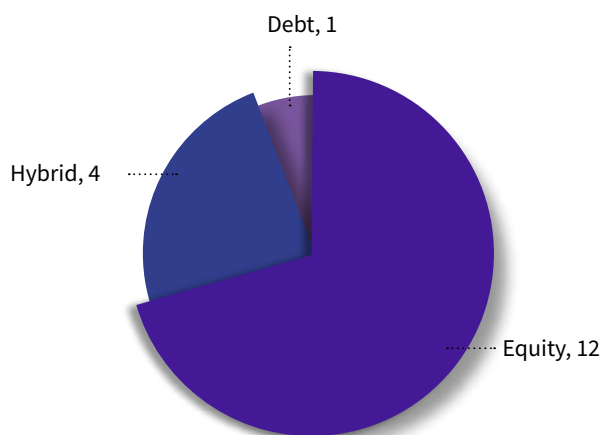
It was a common phenomenon for private foundations to team up with other investors in order to make larger investments into FinTechs, more so in the PAYG sub-segment.



Source of FinTech investments by Investor Type (2010 – 2017)



### Availability of funds by investment instruments to FinTechs in East Africa (N=12)



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.

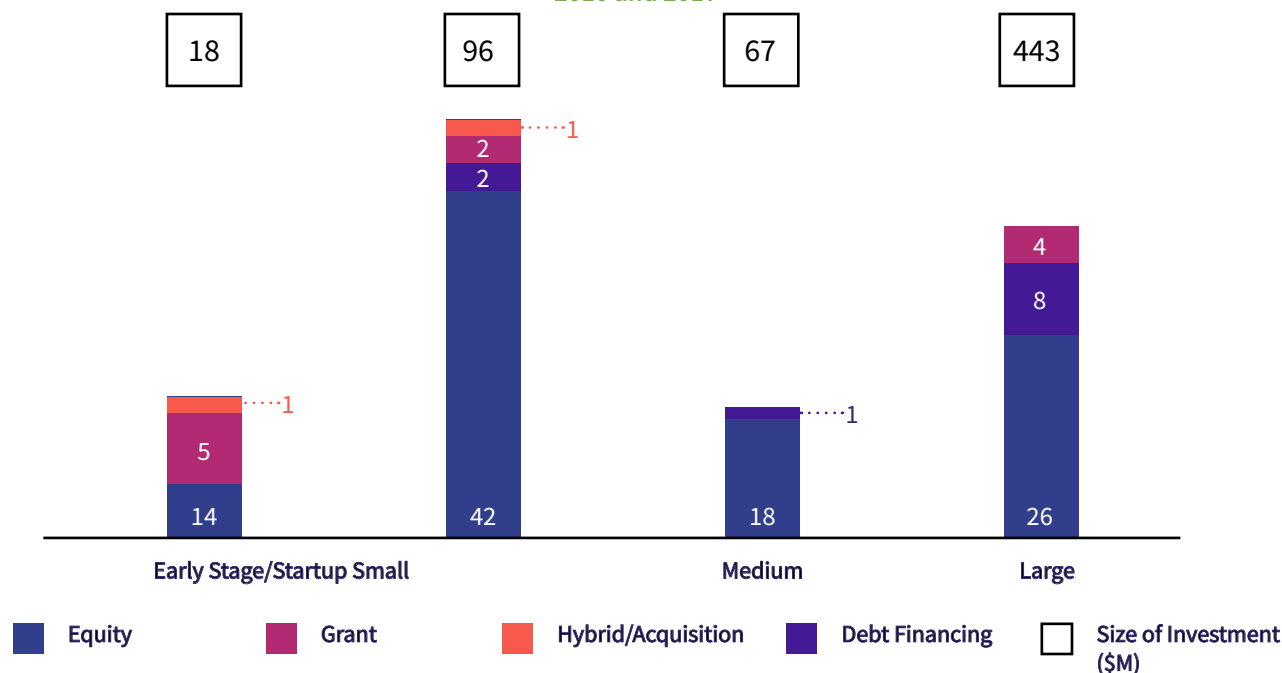
Following concerns of overvaluation earlier, the funders have now resorted to usage of convertible notes to inject capital into the FinTechs. As such, this trend is foreseen to continue going forward.

## 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.

### Total number of investments in FinTech companies by size between 2010 and 2017



Size	Definition
Early Stage/Startup	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.
Small	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.
Medium	Medium FinTechs are those with 51 to 100 employees and a capital investment of not more than \$ 300,000.
Large	Large FinTechs are companies with more than 100 employees and a capital investment of more than \$ 300,000.

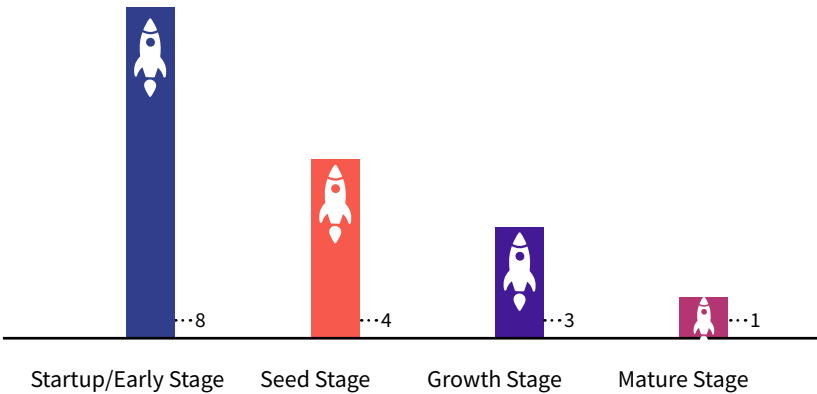
Sources: UNDP, Intelicap Analysis

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.

Availability of funding across maturity levels of FinTechs in East Africa

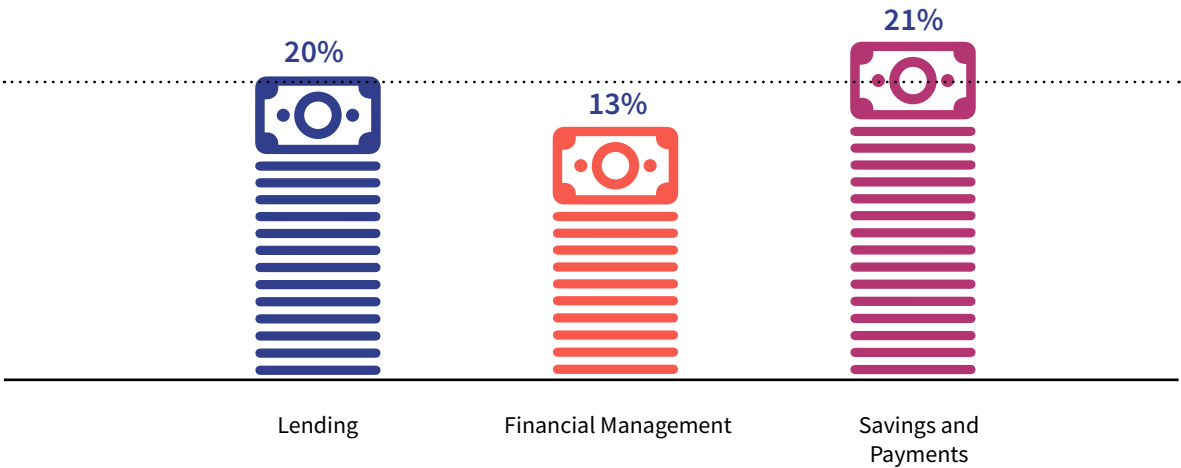


## Exits and Returns

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.

Expected ROI on FinTech related projects



Sources: PwC Global FinTech Survey (2017), Intelicap Analysis

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.

INVESTMENT TYPE	TARGET IRR%	TARGET NET MULTIPLE*	HOLD PERIOD	LOSS RATE/ RISK LEVEL
Early Stage/ Start-up FinTechs	30%	>10x	8 Years	Very High (>70%)
Growth/ Late Stage FinTechs	20%	3x	6 Years	Medium (~30%)

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

Sources: Crunchbase, Interviews, Intellectap 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, Intellectap 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, Intellectap Analysis



## A Risk Assessment Framework For Funding In East Africa

INVESTMENT CRITERIA	TYPE OF RISK	FACTORS UNDER CONSIDERATION	RELEVANCE/ CRITICALITY
BUSINESS MODEL	Product Risk	Development stage of product; Product life cycle; Risk of reverse engineering; Manufacturing complexities; Number of constituent technologies.	Medium
	Technological Risk	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).	High
SCALABILITY	Market Risk	New users; Uncertainty in market acceptance; Market growth rate; Competitors; Substitute products; Potential entrants; Huge marketing expenditure; Disorganised sector; No assured market.	Medium
	Implementation/ Operational Risk	Capability of the FinTech organisation; Unavailability of skilled work-force; Lack of contacts with resource persons; Problem in arranging additional fund.	Low
	Environmental Risk	Changes in Government policy; Lack of understanding about regulations; Legal barriers - piracy / patent; etc.	High
PROFITABILITY	Financial Risk	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.	Medium
OTHER CONSIDERATIONS	Promoter Risk	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.	High
	Organisational Risk	Motivation of employees; Employee turnover; Dependence on few workers.	Low
	Strategy Risk	Losing competitiveness; Unrelated diversification.	Low

Sources: Investor Interviews, Intellectap 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.



# FINTECH LANDSCAPE

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.

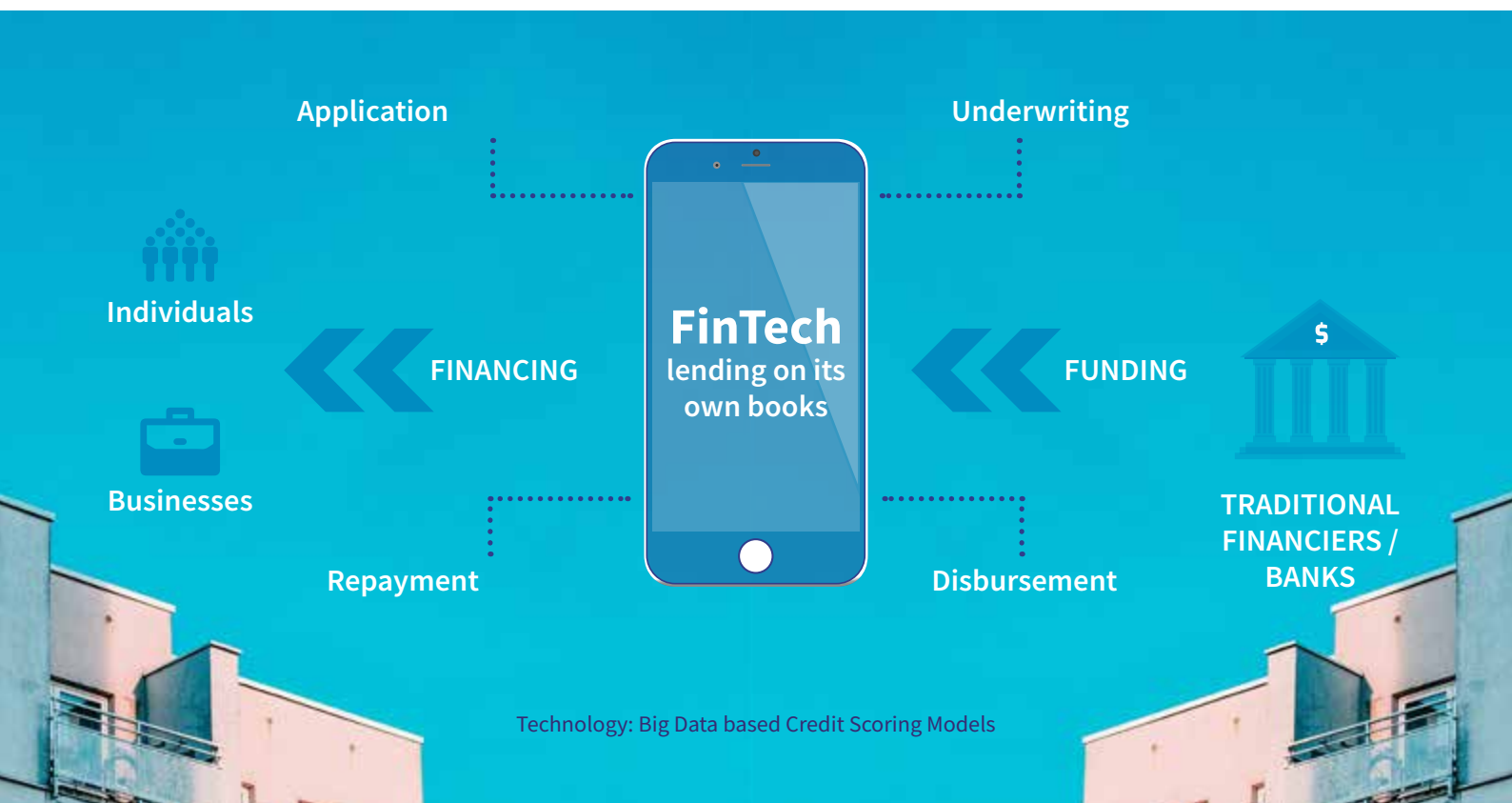
We have identified 11 FinTech models and 47 sub-models in the market across 4 key segments.

LENDING			TELCO BASED NANO LENDING
Direct Lending	P2P Lending	Lending Aggregators	
Direct lending Data driven balance sheet lending	Peer to peer lending by individuals and non- financial institutions	Online aggregators of Financial Products and Services	
PAYMENTS & SAVINGS			Digital payment enabled small ticket, short tenure lending
Mobile Wallets	Payment Intermediaries	Crypto Currency Platforms	
Virtual wallets enabling digital storage and payment transactions	Platforms supporting transactions across different wallets and other non- digital financial institutions	Platforms enabling exchange, storage and transactions using	
FINANCIAL MANAGEMENT			ENABLERS
Insurance Management	Investment Management	Personal Financial Management (PFM)	
Platforms enabling provision of insurance digitally	Digital advising, investing and monitoring platforms	A holistic view of finances for planning and tracking	Data driven and advanced technology backed risk, compliance and fraud detection platforms

# 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.



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.

## Presence

Has been in operation in Kenya since 2015 and in Tanzania since 2017.

**PI**

Big data driven underwriting models. 10,000 data points consumed.

**NS**

Currently serves about 1.8 million customers in Kenya who are majorly under-banked or unbanked.

## Up-sell

For the customers who repay the loans on time, are offered follow on loans at a cheaper rate.

## Growth

Currently processes over 30,000 loans a month (approximately 60% of the total applications received).

## Outreach

Presence in major East African countries and planning to expand to other countries as well.

# Model Feasibility

## Value proposition

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



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**

intelligent lending

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.

## Presence

It has been operating in Kenya since 2012.

**FEES** It offers products at lower charges compared to the informal credit sources.

**NS** Advances are made for the purpose of working capital against the invoice to borrower's customers.

## Channel

Online platform and USSD technology based feature phones.

## Growth

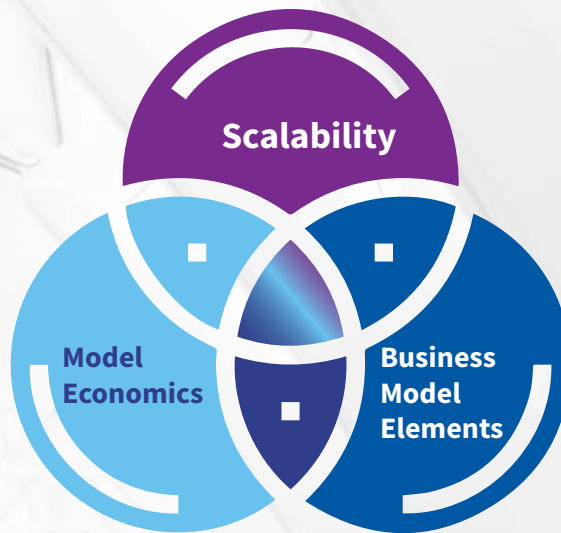
Loan book growing at the rate of 2-5 times annually.

## NPLs

Trade Insurance cover enables the company to absorb the default risk thus ensuring minimal NPAs.



## Feasibility Matrix



### Scalability

These models can scale up only if they are adequately funded from time to time. Hence, raising debt regularly and at lower costs is critical to ensure scalability.

### Model Economics

Due to high cost of funds in the East African market for such startup FinTechs (15%+), high cost of digital acquisition and data partnerships and high initial NPAs, the cost of operations is well beyond 25-30% which means that they are unable to lend profitably unless they target the lower and BOP segments.

This creates a self-fulfilling myriad of negative selection which these models need to address if they have to attain profitability and sale over the medium to long term.

### Business Model Elements

**Segments:** Facilitate lending to very low income consumers/ MSMEs along with mid-size SMEs by leveraging alternate and traditional in digital form, and risk price the customer effectively.

**Underwriting:** Unsecured Personal / Business Loans – Many models use the social data in addition to the transactional mobile money data to profile the customers and determine their credit worthiness. Most of these models are reasonably nascent and have not been exposed to extended economic cycles.

**Supply Chain Financing / Invoice Financing** – Select FinTechs that focus on Invoice / supply chain financing have a lower risk exposure due to the presence of an underlying invoice, effective due diligence of the borrowers and their counter parties, thus improving the overall profitability.

## 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.

### East Africa – Direct Lending Landscape

Target Borrower	Kenya	Tanzania	Others
Individuals	8	1	2
Businesses	4	1	2

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



#### Personal Loans

Platforms offering small ticket sized, unsecured loans to individuals through a digital medium.

Credit assessment is undertaken based on data derived from mobile money transactions.



#### Student Loans

FinTechs offering loans to students to support their higher education and associated fees.

Student refinancing is the most prominent product in this segment.



#### Consumer Durable Loans

Platforms offering financing for the purchase of electronic products, appliances, mobile phones, etc. at the time of purchase.

Few innovative models like pay-as-you-go have found traction in recent times.



#### Asset Backed Finance

These platforms offer loans to individuals secured by assets like two wheelers, automobiles, home, etc.

These models employ alternate data sources like employment details extracted from mobile phones for verification and credit assessment.

### Small and medium sized enterprises



#### Revolving Credit Facility

FinTechs offer revolving lines of credit to businesses to meet their working capital requirements.

Underwriting is done online and an amount is sanctioned based on the computed credit rating.



#### Supplier Financing

FinTechs offering small suppliers (like OEMs) can avail for financing to mitigate the time gap encountered in credit of funds.

In most cases, these are supported by the large corporates in order to ensure continuity of supply.



#### Invoice Discounting

FinTechs offering loan products based on invoice discounting to businesses.

Under these models, credit is availed at a discounted rate against the invoices raised on the end customers.



#### Business Loans

Platforms offering loans with shorter tenure to small businesses.

These are broadly unsecured loans for meeting the working capital needs of the businesses.



**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.

### 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.

# PEER TO PEER LENDING

**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



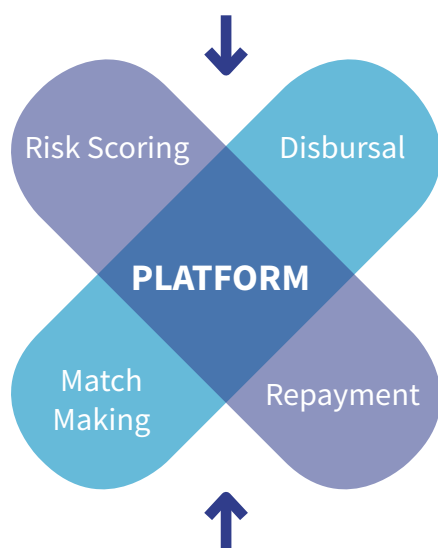
Individuals



Businesses

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



## INVEST FUNDS

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.

## INVESTORS



Individuals



Businesses

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.

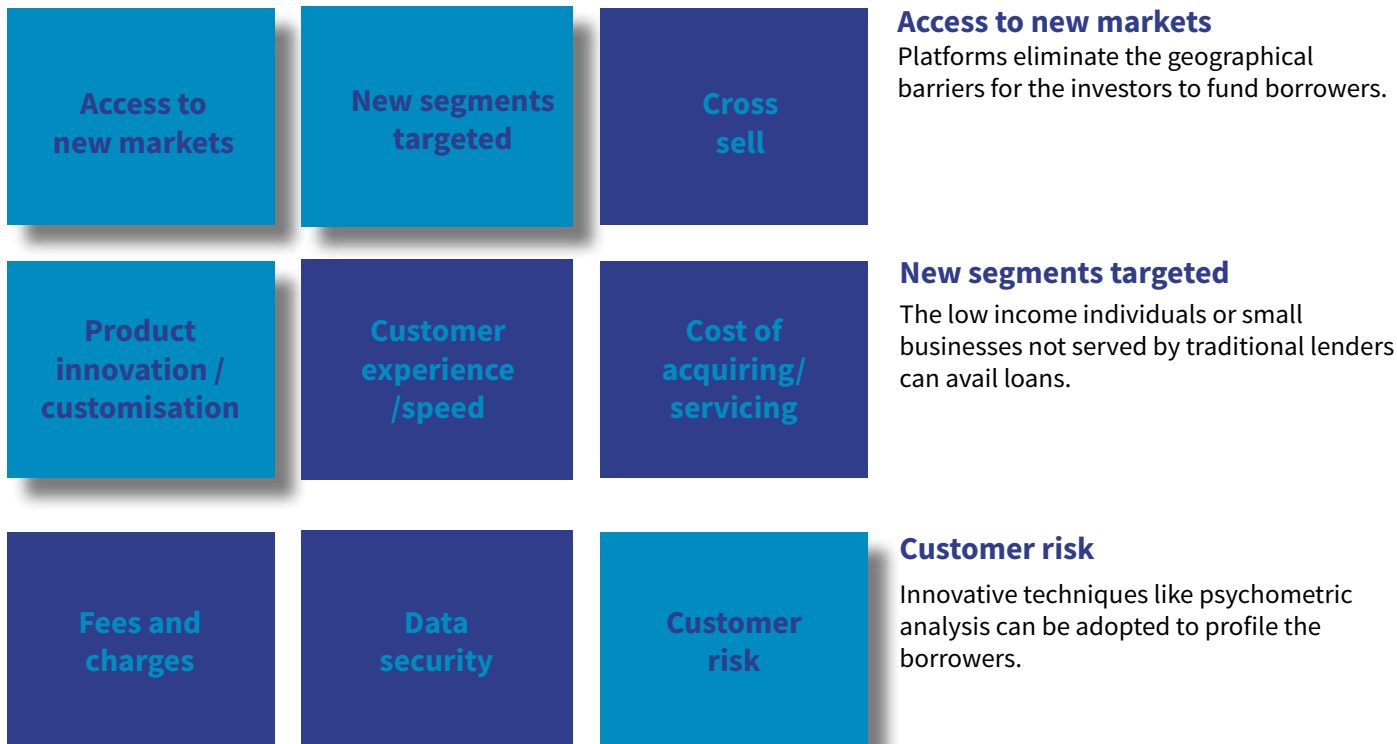
**Big Data based alternate lending credit scoring models.**



# 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).



It accounts for 10% of U.S. personal loan outstanding balances in 2017.  
Has a Net Promoter Score of 71.

**NS**

### Presence

It was founded in 2007 in the US.

**FEES**

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.

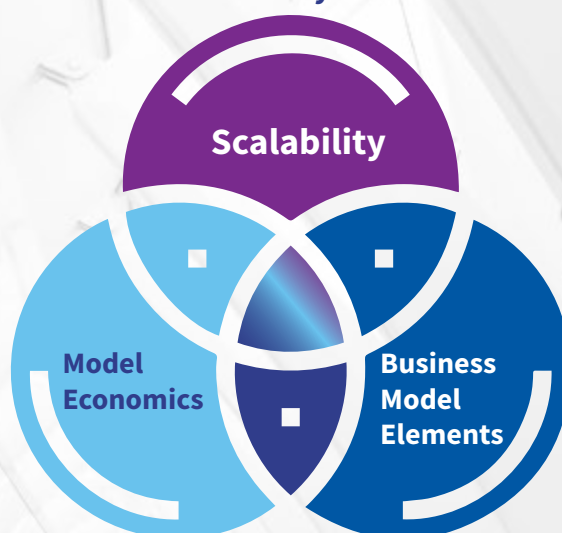
### Investor Mix

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.

## Feasibility Matrix



### 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.

### East Africa – P2P Lending Landscape

Borrower Type	Kenya	Tanzania	Others
Consumer	1		2
Business	4		



**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.

### 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.

### Guaranteed

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

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

### 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.



Pezesha aspires to become Africa's largest peer to business lending marketplace.

<b>Presence</b> It has been operating in Kenya since 2016.		<b>Growth</b> Has grown to 6000+ borrowers and 200+ Lenders within 2 years.
<b>NS</b> Targets the working capital needs of small to medium businesses who do not have access to formal capital.  <b>PL</b> Uses exhaustive analytics driven scoring models. Schemes with weekly repayment over 30 days.	<b>Hybrid</b>  Alternate data driven scoring along with the local expertise.  Partnered with communities and created an agent network to educate the borrowers.	<b>Channel</b> Smartphone and use of SMS short codes on the feature phones.

Most of the marketplace platforms in East Africa are not for profit crowd funding oriented.

Gaps / Opportunities	Future Outlook
<b>Few local platforms:</b> Very few FinTechs are offering profit based peer to peer lending platforms in East Africa. Majority of these are the foreign ones. <b>The local FinTechs with their understanding of the local market conditions</b> , would be in a better position to develop a more sustainable model.	<b>Enabling crypto-currency based lending:</b> 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.
<b>Partnerships:</b> Banks can partner with the platforms and provide them with the leads that do not comply with their policy norms.	<b>Securitisation:</b> While securitisation is currently not prevalent in East Africa, FinTech platforms may soon start securitising their portfolios by creating tradable tranches.
	<b>Invoice financing:</b> 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.
	<b>Growth potential:</b> 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.

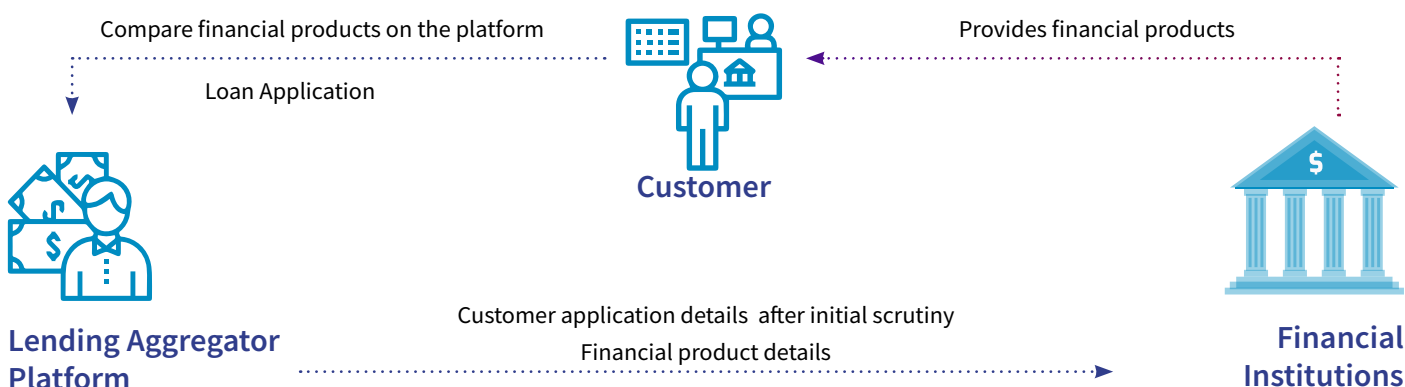


# LENDING AGGREGATORS

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.


 <p>Initially operating as an online market place for cars, the company identified the need to offer a one stop shop for insurance and loans.</p>	
<p><b>Presence</b></p> <p>The company began operations in Kenya in 2017.</p>	<p><b>Channels</b></p> <p>Available through a mobile app as well as on the company's website.</p>
<p><b>CE</b></p> <p>It offers a cost effective and time efficient process of comparing loan quotes while enabling customers to apply for loan directly from the platforms.</p>	<p><b>Model</b></p> <p>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.</p>
<p><b>XS</b></p> <p>The platform provides insurance comparison along with vehicle financing options.</p>	

# Model Feasibility

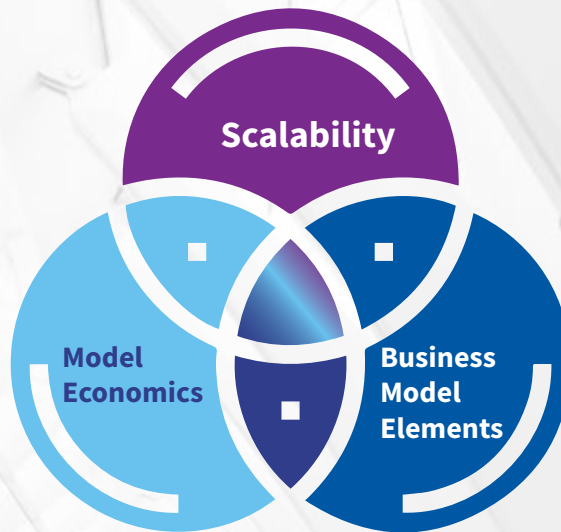
## Value proposition

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.



 Bank Bazaar turned profitable in Marh, 2017. Personal loans contributed most to the reduction in cost.	
<b>Presence</b> India (since 2008).  <b>XS</b> One-stop platform for various financial services which include loans, insurance, credit cards, fixed deposits and others.  <b>NM</b> Over 70 lakh visitors per month from different locations in India.	<b>Channels</b> Website & mobile applications. It also provides customer support services over WhatsApp – a messaging service.
	<b>Transition</b> Paperless personal finance approvals – credit card, personal loans. Cheaper proposition for the partner institutions
	<b>Diversity</b> Personal finance and investment tools to increase customer engagement apart from the loan/ credit card application.

## Feasibility Matrix



### Scalability

Lending aggregators have typically struggled with scale due to lower conversion rates of their leads at partner financial institutions due to mismatch in underwriting criteria. Scale is dependent on the ability of the FinTech to leverage the aggregator analytics and scoring effectively and integrate them with the FI credit policies as closely as possible.

Globally, lending aggregators have also adopted risk sharing with the partner FIs to improve conversions.

### Model Economics

Promoting the platform effectively to attract the prospective loan applicants is key. However, the cost of digital acquisition can be as high as 4-5%.

Due to this profitability in a regular aggregation, this model is questionable since a typical lead fee and disbursement fee of 1-2% is not sustainable for the FinTechs.

However, end use focused FinTechs eg., healthcare financing which can divert alternate fee sources from the service providers and/or subvention, can be quite profitable.

### Business Model Elements

**User Interface:** The interface needs to be simple and easy for the users to compare the products. The lower the drop offs, the higher the chances of leads converting to loan customers.

## 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.

### East Africa – Lending Aggregator Landscape

	Kenya	Tanzania	Others
Lending Aggregators	1		
			2

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:

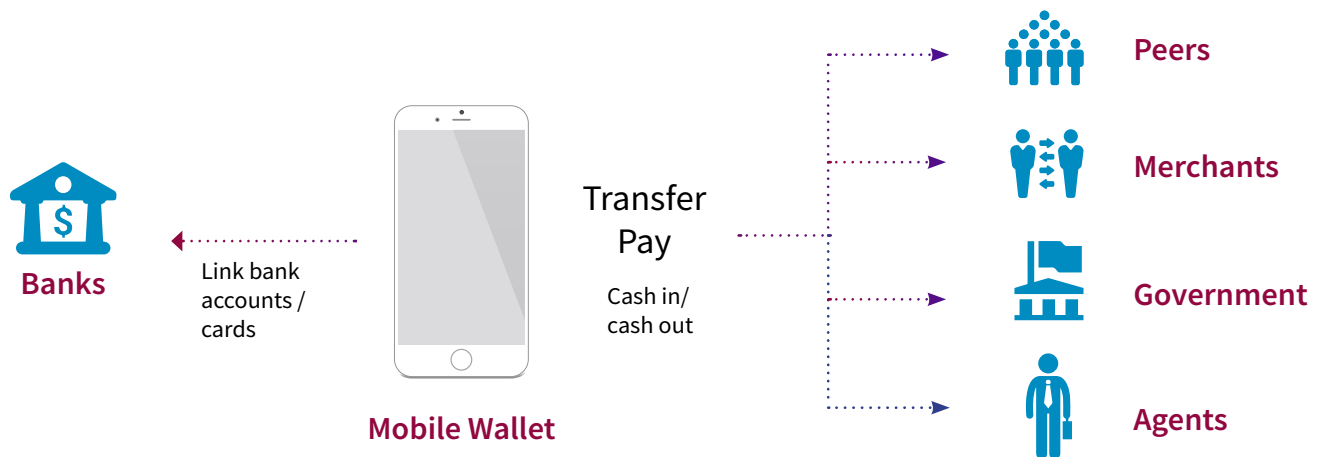
We can expect more and more integration of P2P lenders, FinTechs, traditional lenders into the lending aggregator platforms, thus enabling flexibility and varied options to the customer. This will be true for particularly traditional lenders such as tier-2 and tier-3 banks, MFIs who may find it difficult 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



**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.**

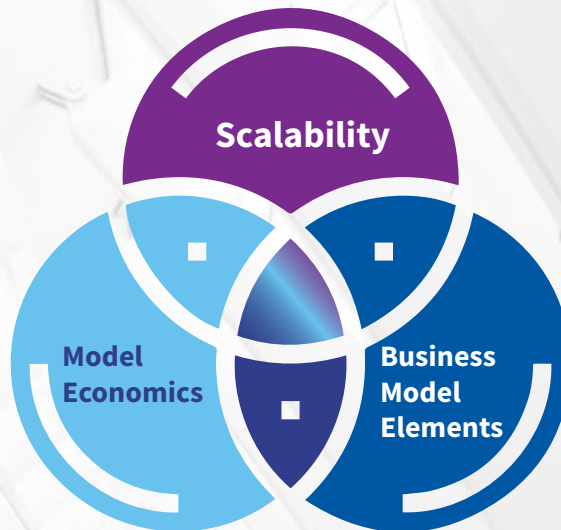
## Presence

It was launched in 2010 by the Telecom provider Tigo in Tanzania.

- NS** It provides mobile money accounts to the unbanked population.
- PI** The wallet can be accessed from multiple smart devices which are registered.
- XS** Tigo pesa leverages mobile money to cross sell loan and insurance products.
- CE** Dumapay app provides the means to accept payments via different modes both online and offline.

**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.**

## Feasibility Matrix



### Scalability

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-Teleco 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.

### Model Economics

**Customer Shift:** 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.

Globally, the profitability model of the wallets has not yet been proven and has witnessed a lot of consolidation.

However, in East Africa due to the dominance of Telcos, self-imposed non interoperability (excluding Tanzania and Rwanda) and regulations, the wallets have demonstrated the ability to make profit by charging the customers.

### Business Model Elements

**Merchant Network:** 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.

#### Alternate Revenue Sources:

Leveraging the transaction data for cross selling financial products is instrumental to the success of the models.

**Privacy:** 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.

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.

### East Africa – Mobile Wallets Landscape

	Kenya	Tanzania	Others
Wallets	5	6	11
	  	  	  

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.

#### 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.

#### Savings wallet

Mobile wallet enabled savings account.

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

#### 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.

### Gaps / Opportunities

#### Digital Marketplace

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.

#### Savings Wallet:

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.

### Future Outlook

#### Forward Integration:

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.

#### Contactless Payment:

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.

#### Leverage Big Data

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.



**Alipay**

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

### 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 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 ee.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.

East Africa – Lending Aggregator Landscape		
Kenya	Tanzania	Others
30	16	35
  	 	 



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

Founded in 2009 and headquartered in U.S.

### 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



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

### Presence

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

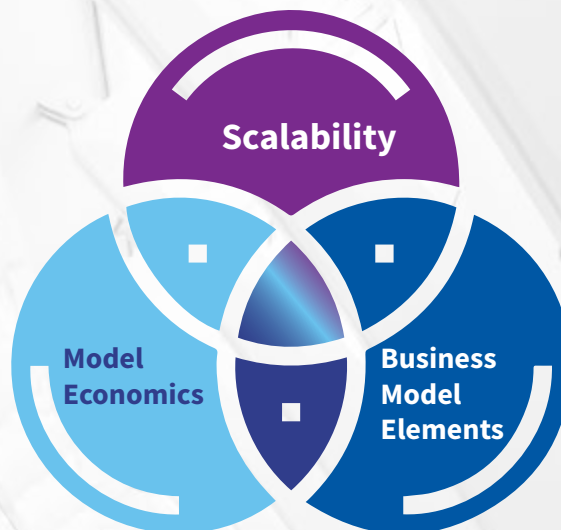
**DS** Platform is backed by the highest security level of the credit card industry – PCI DSS level 1.

**CE** 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.

## Feasibility Matrix



### Scalability

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.

### Model Economics

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.

### Business Model Elements

**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 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.

### APIs - MNOs & Financial Institutions:

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

Founded in 2014. Operating in Kenya, Tanzania and Uganda.

**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.

Gaps/Opportunities	Future Outlook
<b>Proactive fraud identification:</b> 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.	<b>Merchant Financing:</b> 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.  <b>Survival of the fittest:</b> 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.

# CRYPTO CURRENCY PLATFORMS

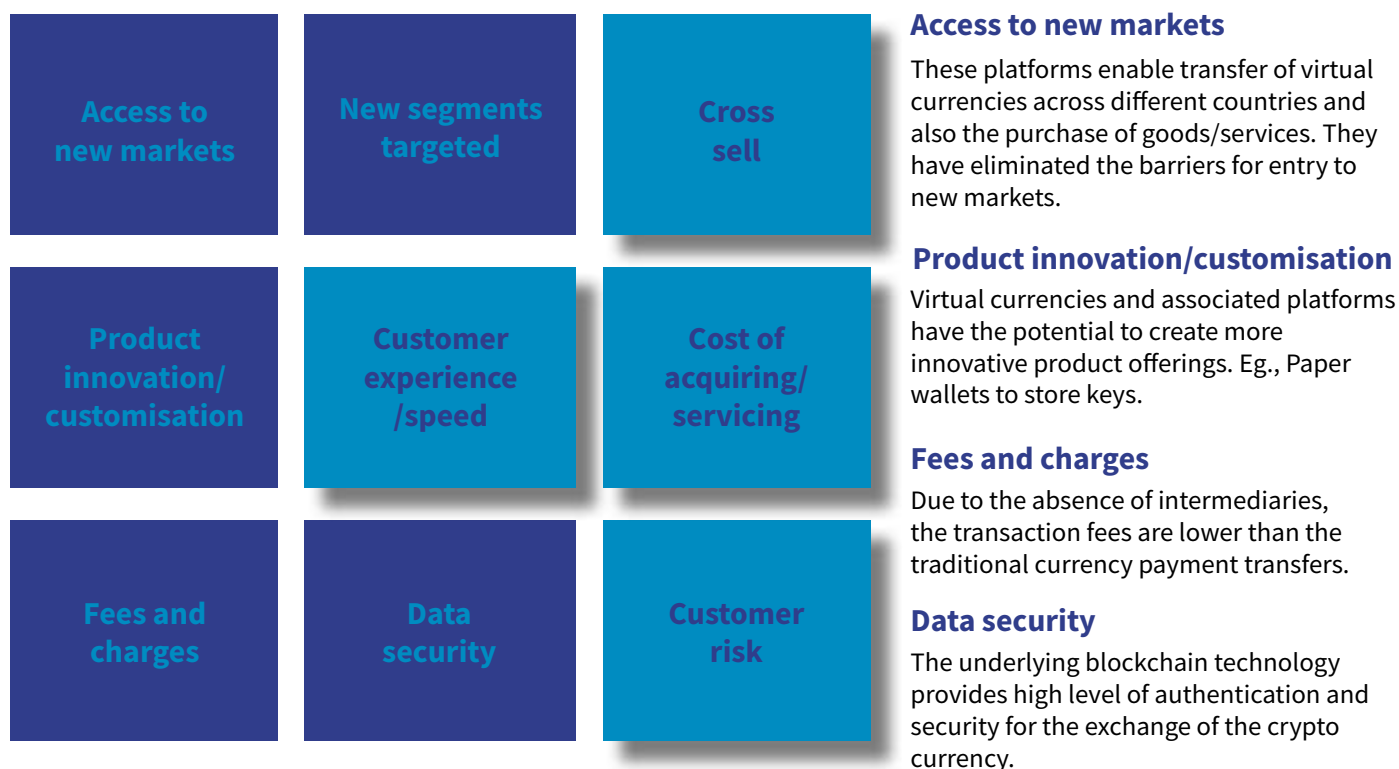
New age platforms which allow the exchange and trading of digital currencies are instrumental in driving the uptake of crypto-currencies across the globe.

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



### 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.

#### East Africa – Lending Aggregator Landscape

Kenya	Tanzania	Others
7	2	1
		

### 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 is one of the most comprehensive Bitcoin trading platforms and digital wallets which allows trading of bitcoins. Belfrics also plans to offer a payment gateway and point of sale system in future to the Kenyan merchants seeking to accept Bitcoin payment.

## Presence

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

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

## 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.



World's largest bitcoin broker as of 2017 facilitating the buy and sell of the virtual currencies over the exchange.

## Presence

Headquartered in U.S. and supports 32 countries.

**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.

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.

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

## Diversity

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

Multiple digital currencies like bitcoin, ethereum, litecoin.



# 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.

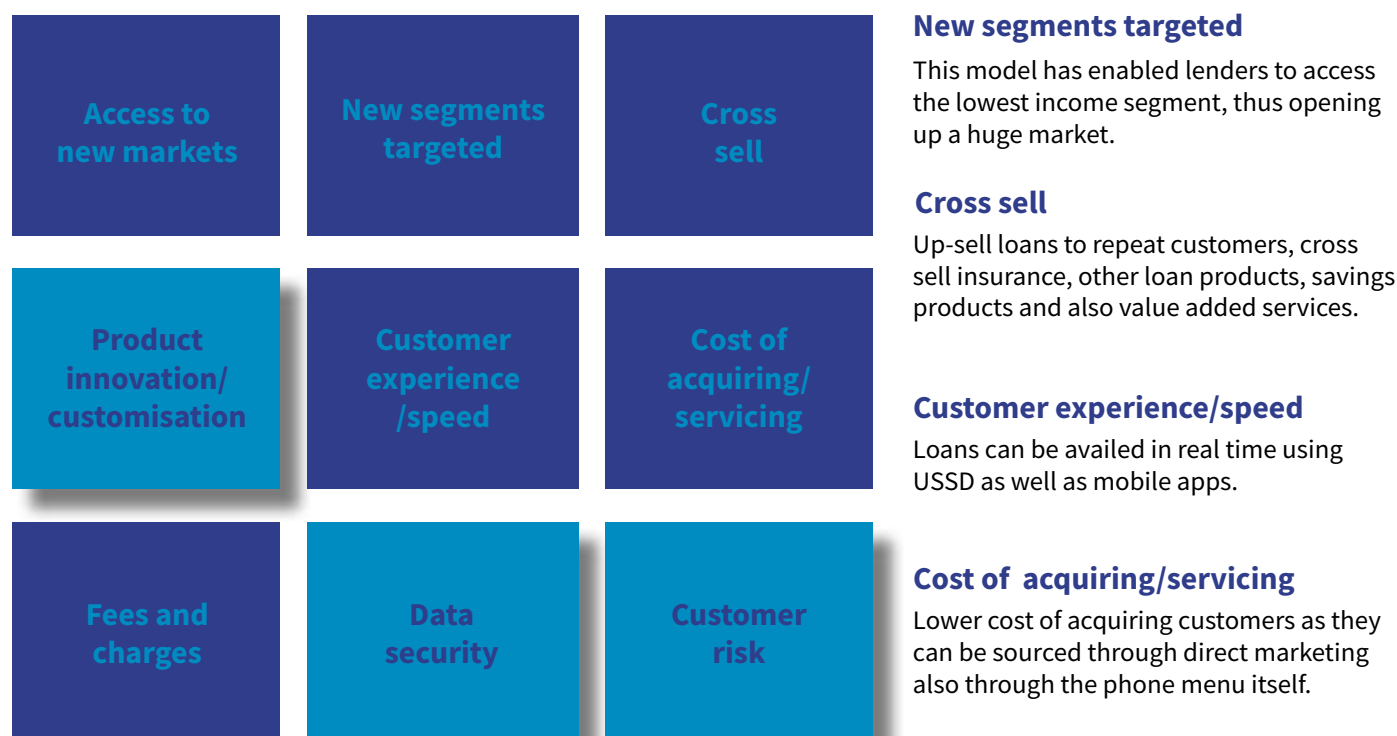
## **Technology:**

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

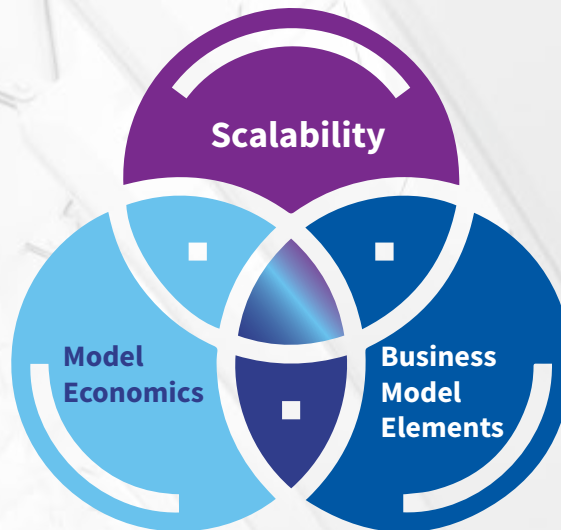
## Model Feasibility

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

### Value proposition



## Feasibility Matrix



### Scalability

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.

### Model Economics

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.

### Business Model Elements

**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.

East Africa especially Kenya is the pioneer of the Nano Lending model where telecom companies and financial institutions have entered into a partnership to provide small ticket loans.

Kenya	Tanzania	Others
1	2	1
		

Unlike direct lending FinTechs, major Nano Lending FinTechs provide loans only to those applicants who have actively operated the savings account of the partner bank for a stipulated time period.

### 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.



**More than 8,500 applications are processed daily via the Equitel line. Currently, approximately 80% of the loan applications that are received by Equity bank are from the Equitel platform.**

## 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.

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

**PI** **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.

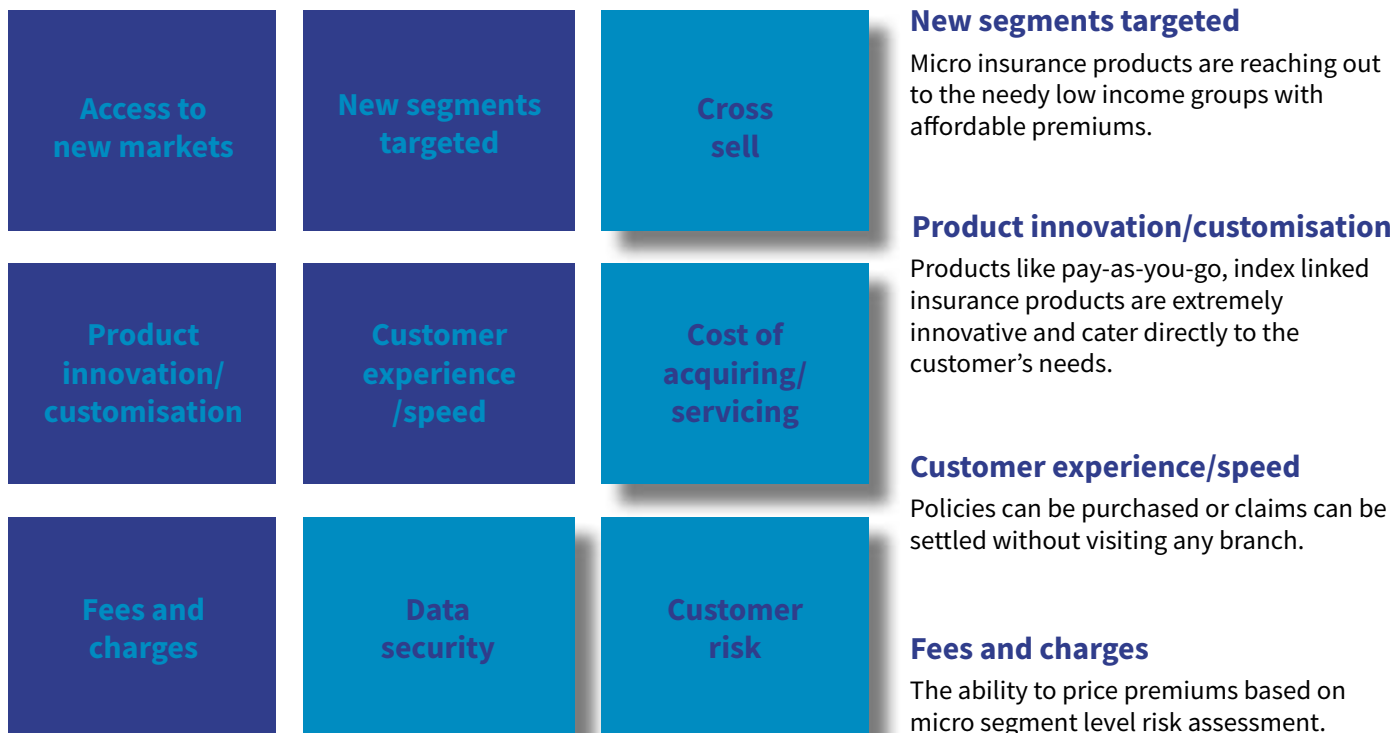
**Blockchain:** Distributed ledger accounting based on blockchain technology is enabling cost efficient insurance transactions.

## Model Feasibility

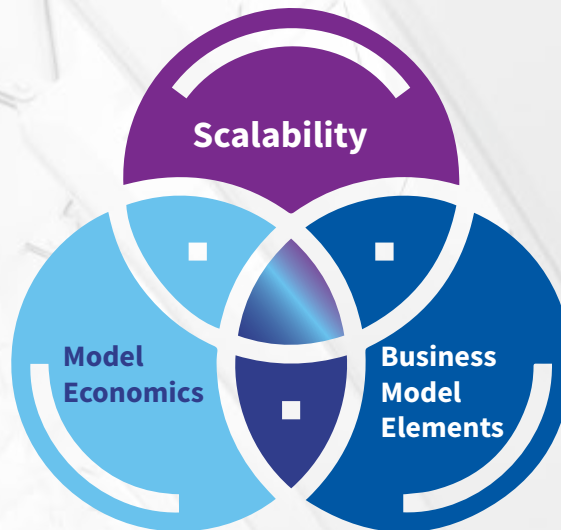
**While InsureTech offers a strong value proposition, the initial pain to scale and sustain can be fairly high.**

In East Africa, partnerships with MNOs and TSPs have drastically reduced the cost for the InsurTech companies.

### Value proposition



## Feasibility Matrix



### Scalability

**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.

### Model Economics

**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.

### Business Model Elements

**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.

With 14+ FinTechs already operating in this space and growing, InsurTech will be an area to watch out for in future.

**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.

Kenya	Tanzania	Others
9	3	2
 	 	 

**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 product to offer a wider range of offerings.

## Major Business Models

<h3>m-Insurance</h3> <p>FinTechs offering insurance through or with some level of assistance by mobile network operators (MNO).</p> <p>Products offered include primarily health and life insurance products.</p> <p>The MNO provides customer, customer data, distribution and marketing support along with the most important 'trust' factor.</p>	<h3>On Demand</h3> <p>In this model, insurance cover is provided on-demand when protection is required.</p> <p>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.</p> <p>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.</p>
<h3>Aggregators</h3> <p>Aggregators are the digital platforms which enable the users to compare the products offered by different companies.</p> <p>They act as digital insurance brokers , by providing an unbiased view on the choice of the policy unlike traditional insurance broking.</p> <p>The key advantage is that these models provide a price-to-premium comparison to the customer.</p>	<h3>Index based</h3> <p>Index based insurance is designed to pay out to the customer automatically in the event of a loss.</p> <p>The product tracks and analyzes a data driven index. E.g., insufficient rainfall levels that will result in loss of harvest.</p> <p>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.</p>
<h3>P2P</h3> <p>A group of associated or like-minded individuals create a common pool of their premiums.</p> <p>These funds insure each individual in the event of pre-defined risks.</p>	

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

Gaps / Opportunities	Future Outlook
<p><b>Unexplored models:</b> 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.</p> <p><b>Aggregator models:</b> More insurance aggregators would emerge in future and they are likely to scale.</p> <p><b>Replicate successful pilots:</b> 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.</p>	<p><b>Blockchain based innovative models:</b> 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.</p> <p><b>IoT, Biometrics driven models:</b> As the IOT enabled devices evolve further, more refined models assessing these data sources would emerge in East Africa.</p> <p><b>Awareness driven schemes:</b> 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.</p>



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.

### PI

#### 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.

## AC/SC

#### Partnerships:

Partnership with MNO has provided BIMA with a cost effective access to the customers compared to the brick and mortar offices or brokers of the conventional insurance providers.



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.



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.<sup>1</sup>

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

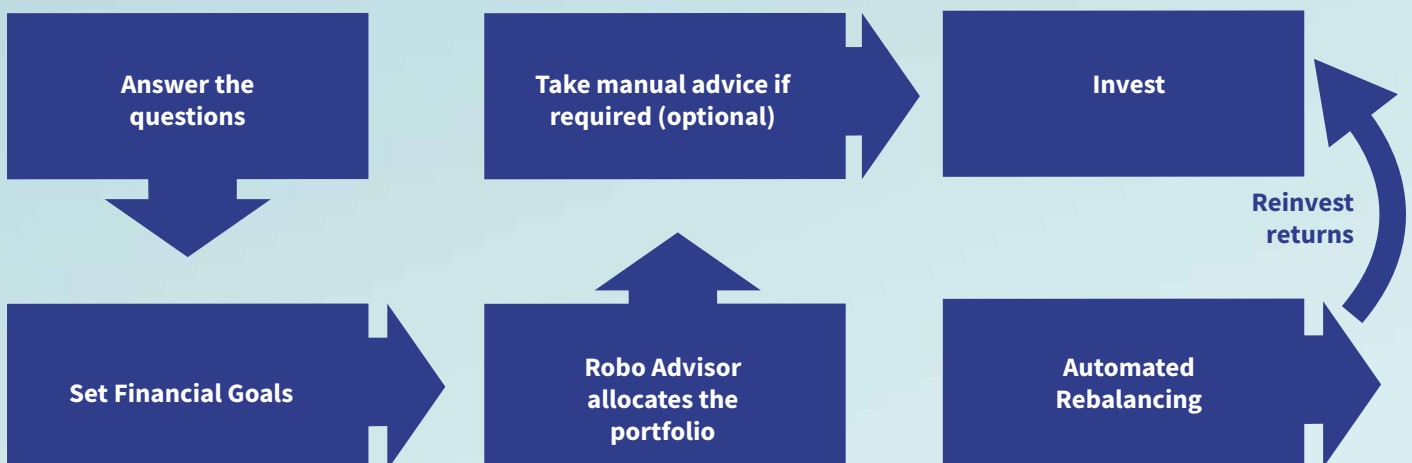
**Psychometric Analysis:** Some firms have developed tools that use psychometric analysis for profiling the customers.

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

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

<sup>1</sup> "The Coming Waves of Robo Adoption" (A.T. Kearney, June 18, 2015)

## Robo Advisor Investment for Individuals



# 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



### 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.

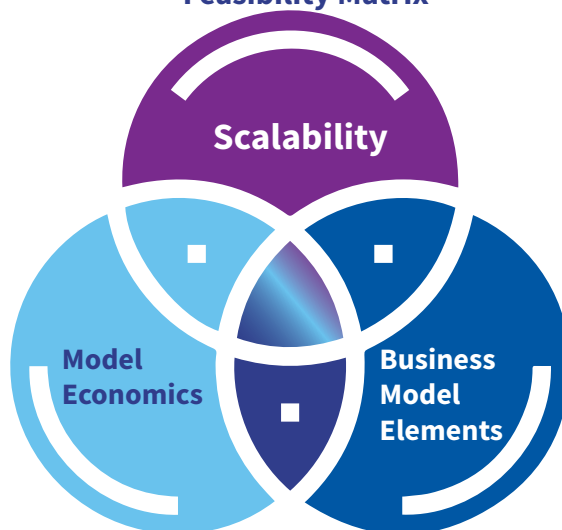
### Product innovation/customisation

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.

## Feasibility Matrix



Scalability
<b>New investors:</b> 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.

Model Economics
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.

Business Model Elements
<b>Blended models:</b> 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'.

## 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.

**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.

Kenya	Tanzania	Others
0	0	0

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

## 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

Founded in 2008 in U.S.

**PI** Artificial intelligence driven robo-advisors manage the investments end to end.

**NS** With lower costs and minimum amount of \$ 500, it provides entry to newer segments that have traditionally not invested. It is developing customised platforms to suit the investment needs of the different segments.

**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:**

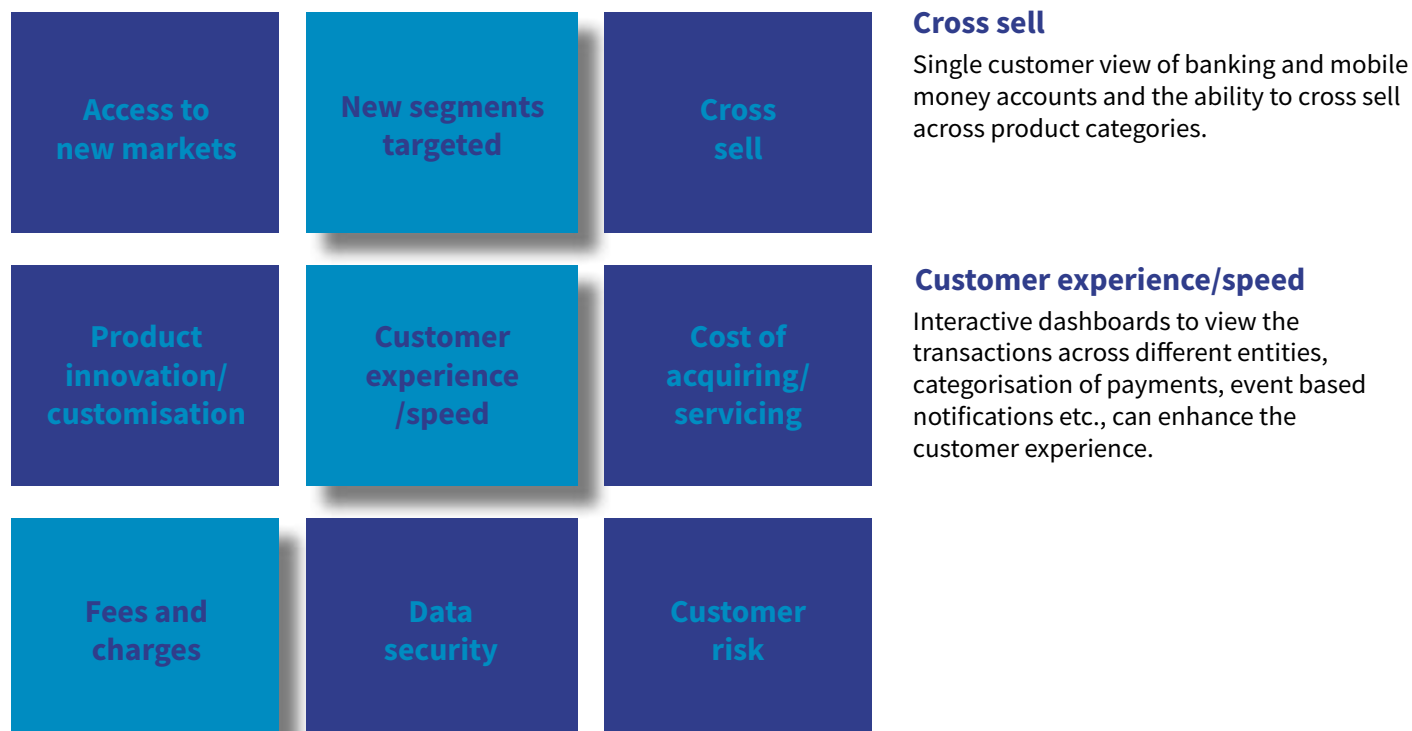
**API:** Open APIs help in extracting financial information from multiple data sources which is then consolidated to provide a single view.

**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.

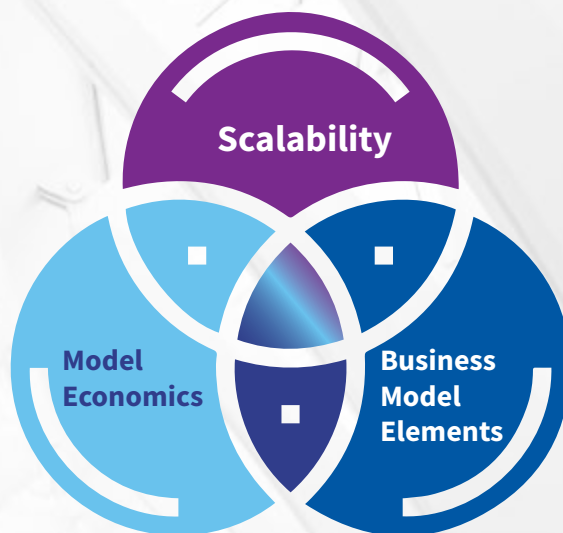
## Model Feasibility

**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







### 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.

With very few PFM tools on offer, there is a definite potential for the start ups to venture and diversify in this business.



**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.

Kenya	Tanzania	Others
6	-	-
		

## Major Business Models

<b>B2C</b> PFM services dedicated to the individual customers and provided through web portals or mobile apps.	<b>B2B</b> FinTechs belonging to this type, provide the white-labeled tools that can be plugged into the business' platform eg., Mobile apps.
<b>B2C + B2B</b> These FinTechs provide financial management services to both individuals as well as businesses.	<b>Hybrid</b> Such FinTechs not only offer PFM services but also diversify to cross sell products like loans, investment and insurance.

Gaps/Opportunities	Future Outlook
<p><b>Lower count:</b> 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.</p> <p><b>Chatbot enabled PFM models:</b> 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.</p>	<p><b>Banking apps and wallets as Financial Managers:</b> 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.</p> <p><b>Partnerships:</b> 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.</p>

 <b>OVERVIEW</b> Overview aspires to integrate with the mobile lending apps like Branch and Tala.	
<b>Presence</b> Launched in Kenya in 2017  <b>CE</b> 360 degree view of the transactions, supported by notifications and insightful dashboards are likely to attract the users.	<b>B2C</b> 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.  <b>B2B</b> Developed customer centric white labeled interfaces which include customizable modules that can be integrated into the existing apps eg: Bank or mobile wallet apps.
 <b>Money View™</b> The PFM app has more than 10 million downloads.	
<b>Presence</b> Founded in India in 2014  <b>CE</b> 7 different local languages  <b>XS</b> <b>Savings+ &amp; Tax+:</b> Partnered with ICICI Prudential to offer a green account platform to its customers to invest into the liquid or tax saving funds. <b>Personal loans:</b> Pre-approved loan to certain set of the customers which can be availed within few hours.	<b>Features</b> 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.

Kenya	Tanzania	Others
17	6	7
  	 	



Financial institutions are entering into strategic partnerships with technology service providers offering big data credit scoring and API based platforms.

## Major Business Models

<b>ScoreTech</b> Alternate data based algorithms to compute credit scores.  These are adopted by various financial institutions to underwrite the loan borrowers.	<b>FraudTech</b> Perform pattern analysis and fraud detection using machine learning and AI driven algorithms.  By offering real time fraud detection, these FinTechs help averting fraud occurrence.
<b>AdminTech</b> Platforms that can be plugged to manage processes like insurance servicing, loan management.  These platforms offer customised workflow management solutions.	<b>Blockchain</b> Provide blockchain based infrastructure for the partners to integrate and run their processes.  The distributed database created by blockchain technology is one of its most distinct and important feature.
<b>Chatbots</b> Interactive platforms driven by AI based algorithms which draw insights from the content.  These are often designed to convincingly simulate how a human would behave as a conversational partner.	<b>ComplianceTech</b> Advanced technology backed compliance services like AML services.  These enablers help evaluate complex data sets to cater to the increasing regulatory needs.
<b>VeriTech</b> 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.	

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

Gaps / Opportunities	Future Outlook
<b>Fraud Identification:</b> 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.	<b>IoT, Biometrics :</b> 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.
<b>Local FinTechs:</b> Higher proportion of the FinTechs are of global origin. Local enablers need to be supported through funding and incubation services.	
<b>RegTech:</b> 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.	
	<b>Convergence with speed:</b> 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.





Recent study revealed that Arifu led to better customer engagement and improved the uptake of the products.

## Content Marketplace + Chatbot

### 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.



firstaccess

## 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.



NetGuardians

## 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.



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

## Credit Underwriting Product Design Administrative Management

### 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



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

Insurance underwriting and administration

## 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.



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

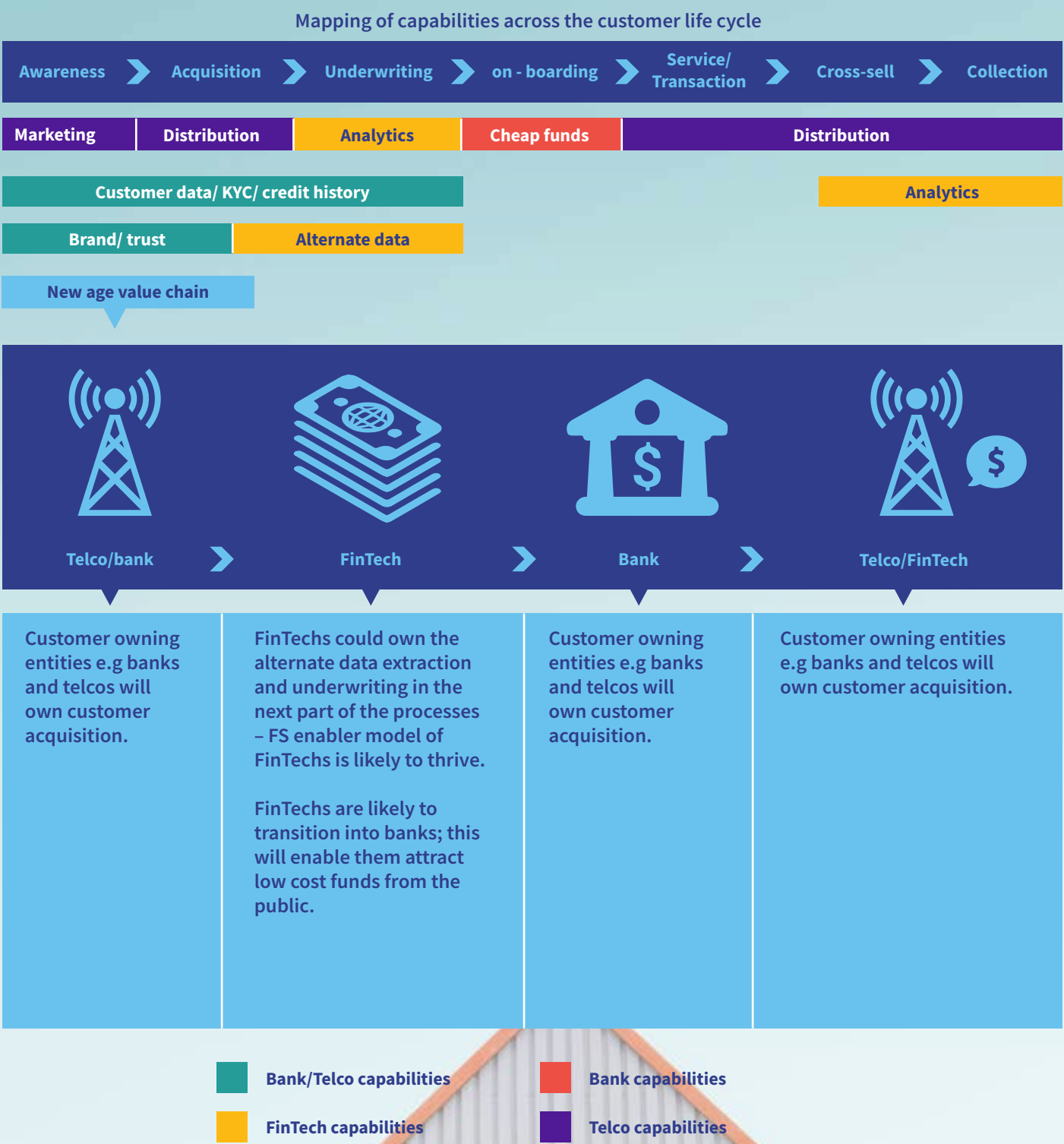
**Transaction fee** on the loans issued

**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





An aerial photograph of rolling green hills, likely in the Philippines. The hills are covered in lush green grass and are characterized by deep, winding erosion gullies. In the lower right foreground, a herd of white sheep is grazing on a hillside, with a few people visible nearby. The lighting is bright, creating strong shadows in the gullies and highlighting the vibrant green of the vegetation.

# Annexure



## 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](mailto: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.

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### 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](mailto:A.Shaw@fmo.n)

## Research Partners



### **Intellecapt Advisory Services Ltd.**

Founded in 2002, Intellecapt 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.

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#### **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

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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
21. National Bank of Commerce Tanzania
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
34. Tribe



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## Abbreviations

AC/SC	Acquiring costs/ Servicing costs
AI	Artificial Intelligence
AML	Anti-Money Laundering
API	Application programming Interface
ATM	Automated Teller Machine
B2B	Business to Business
B2C	Business to Consumer
BAU	Business as Usual
BOP	Base of pyramid
BOT	Bank of Tanzania
BOU	Bank of Uganda
C2B	Consumer to Business
CAGR	The compound annual growth rate
CAK	Communications Authority of Kenya
CBA	Commercial Bank of Africa
CBK	Central Bank of Kenya
CDSC	Central Depository and Settlement Corporation
CE	Customer Experience
CRB	Credit Reference Bureau
DPO	Direct Pay Online
DS	Data Security
EAVCA	East Africa Venture Capital Association
e-Commerce	Electronic commerce
EFT	Electronic Funds Transfer
e-KYC	Electronic Know Your Customer
EMEA	Europe, the Middle East and Africa
E-retailers	Electronic Retailers
EU	European Union
FDI	Foreign Direct Investment
FI	Financial Institution
FSD	Financial Sector Deepening
FSPs	Financial Service provider
GDP	Gross Domestic Product
GMEA	General Motors East Africa
GPS	Geo-positioning System

GSM	Global System for Mobile Communications
GWP	Gross Written Premiums
HELB	Higher Educations Loans Board
ICT	Information Communication and Technology
IoT	Internet of Things
IPO	Initial Public Offering
IRA	Insurance Regulatory Authority
IRR	Initial Rate of Return
ITU	International Telecommunication Union
IVR	Interactive Voice Response
KASIB	Kenya Association of Stockbrokers and Investment Banks.
KCB	Kenya Commercial Bank
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
M-commerce	Mobile commerce
MFI	Micro Finance Institution
MNO	Mobile Network Operator
MSME	Micro,small and Medium Enterprises
MVNO	Mobile Virtual Network Operator
NBE	National Bank of Ethiopia
NBR	National Bank of Rwanda
NFC	Near Field Communications
NIDA	National Identification Authority
NM	New Markets
NPA	Non-performing Assets
NPL	Non-performing Loans
NS	New Segments
NSE	Nairobi Stock Exchange
P2P	Peer to peer
PC	Personal Computer
PCI-DSS	The Payment Card Industry Data Security Standard
PFM	Personal Financial management
PI	Product Innovation
POS	Point of Sale
QR Code	Quick Response Code
ROA	Return on Assets

ROE	Return on Equity
ROI	Return On Investment
RTGS	Real Time Goss Settlement
RURA	Rwanda Utilities Regulatory Authority
SACCOs	Savings and Credit Co-operatives
SIM	Subscriber Identity Module
SMS	Short Message Service
STK	Sim Tool Kit
TAT	Turn Around Time
TCRA	Tanzania Communications Regulatory Authority
TIRA	Tanzania Insurance Regulatory Authority
TSP	Technology Service Provider
UCC	Uganda Communucation Commission
UK	United Kingdom
US	United States
USD	United States Dollar
USSD	Unstructured Supplementary Service Data
VC	Venture Capital
XS	Cross Sell
YoY	Year on Year



## Partnerships: List of Current partnerships in East Africa

### List of current partnerships in East Africa (not exhaustive)

Product	Country	PARTNERS			
		Banks/MFI/ Insurance	Telco Wallet	FinTech	Others
Pesalink	Kenya	30 commercial banks			
<b>Description:</b> A real time money transfer service from a local Kenya Shillings bank account to another in real-time that is available 24/7.			<b>Unique Selling Point/Value proposition:</b> Allows interoperability of financial services thus faster and more convenient transactions between bank accounts.		
M-Shwari	Kenya	Commercial Bank of Africa (CBA)	Safaricom (M-pesa)		
<b>Description:</b> The first mobile micro-credit and savings product in Kenya that allows instantaneous application and disbursement of loans to m-pesa customers.			<b>Unique Selling Point/Value proposition:</b> Has enabled lending to the microsegment that previously lacked access to formal credit.		
KCB M-Pesa	Kenya	Kenya Commercial Bank (KCB)	Safaricom (M-pesa)		
<b>Description:</b> A mobile micro-credit and savings product that enables instantaneous application and disbursements of loans exclusively to m-pesa customers.			<b>Unique Selling Point/Value proposition:</b> Digital application and processing of the credit and digital operation of the savings account helps in reducing operational cost.		
M-Pawa	Tanzania	Commercial Bank of Africa (CBA)	Vodacom (M-pesa)		
<b>Description:</b> The first mobile micro-credit and savings product in Tanzania that enables instantaneous application and disbursements of loans to m-pesa customers			<b>Unique Selling Point/Value proposition:</b> Has enable use of additional data points ( mobile wallet transactions data) for credit scoring.		
MoKash	Uganda, Rwanda	Commercial Bank of Africa (CBA)	MTN		
<b>Description:</b> A mobile based account that offers convenient access to deposit and loan products to MTN money customers.			<b>Unique Selling Point/Value proposition:</b> Has enhanced the customer experience through instantaneous digital application and disbursement of credit.		



Product	Country	PARTNERS			
		Banks/MFI/ Insurance	Telco Wallet	FinTech	Others
Equitel	Kenya	Equity bank	Airtel	Finserve	
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Offers easy access to both banking and telcom services in one platform.		
M-Ledger	Kenya		Safaricom	Dynamic data systems	
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Offers real time tracking of m-pesa transactions.		
Timiza Wakala loans	Tanzania		Airtel (Airtel money)	JUMO	
<b>Description:</b> Launched in 2015 the product aims to provide affordable credit to the over 20,000 Airtel money agents.			<b>Unique Selling Point/Value proposition:</b> Uses algorithms to determine the credit score of the agents.		
Bima Mkononi	Tanzania	Resolution insurance	Tigo (Tigo Pesa)	Milvik Bima	
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Facilitates easy registration of products and payment of premiums enhancing uptake even in previously under-served markets.		
Jamii Africa	Tanzania	Jubilee insurance	Vodacom (M-Pesa)	Edgepoint Ltd	
<b>Description:</b> 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%.			<b>Unique Selling Point/Value proposition:</b> Helps reduce the insurance administration cost thus reducing the premiums charged.		
HaloYako	Tanzania	FINCA microfinance	Halotel (HaloPesa)	Edgepoint Ltd	
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Enables users to save in an easy way with the ability to track their savings journey from an accessible platform in real time.		

Product	Country	PARTNERS			
		Banks/MFI/Insurance	Telco Wallet	FinTech	Others
Linda Mbegu	Tanzania	UAP insurance	Airtel (Airtel money)	ACRE Africa	Seed Co
<b>Description:</b> The first affordable mobile crop insurance product that offers farmers protection against drought, at the germination and flowering phase of crop development.			<b>Unique Selling Point/Value proposition:</b> Provides a quick and accessible way through which farmers apply for insurance.		
Tigo Nivushe	Tanzania		Tigo (Tigo Pesa)	JUMO	
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Uses algorithms to determine the credit score of the customers.		
Loans to uber drivers	Kenya Tanzania			Branch	Uber
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Leverages non-traditional data sources e.g. driver's rating to give a credit score that determines loan eligibility.		
Jumia loans	Kenya			Branch	Jumia
<b>Description:</b> 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).			<b>Unique Selling Point/Value proposition:</b> Leverages non-traditional data sources e.g. sale statistics and projections to give a credit score that determines loan eligibility.		
M-Birr	Ethiopia	5 MFIs			
<b>Description:</b> A mobile money service provider that allows transfer of money between M-Birr customers, payment of bills and mobile top up.			<b>Unique Selling Point/Value proposition:</b> Enables easy transfer and receipt of money, payment of bills at the click of a button.		

Product	Country	PARTNERS			
		banks/MFI/ Insurance	Telco Wallet	FinTech	Others
Joint agency banking platform	Uganda	Uganda Bankers Association		Eclectic International	
<b>Description:</b> This is a centralized digital platform that will enable banks to share agents and thus benefit from cost reduction and centralized monitoring.			<b>Unique Selling Point/Value proposition:</b> The shared platform helps in reduction in cost of running agents. Provides a one stop shop for banking services across various banks.		
M - Tiba	Kenya	UAP Insurance	Safaricom		CarePay
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Enables users to save and accumulate funds that can be used to mitigate a health emergency.		
M-Akiba	Kenya		Safaricom, Airtel		CBK, NSE, CDSC, The National Treasury, KASIB
<b>Description:</b> 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.			<b>Unique Selling Point/Value proposition:</b> Enables instantaneous purchase of bonds; thereby lowering the costs associated with investment facilitation.		



## Some recent FinTech deals in East Africa

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
FarmDrive	Kenya	Technology	Software as a Service	Undisclosed	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Funding Round	Equity	Safaricom Spark Fund	Corporate	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Pezesha	Kenya	Lending	P2P Lending	Undisclosed	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
			Digital Financial Services Innovation Lab	Corporate	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Pula	Kenya, Rwanda, Uganda, Nigeria, Ethiopia and Malawi	Financial Management	Insurance Management	Undisclosed	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
			DFS Lab, CGAP		

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
M-KOPA	Kenya, Uganda, Tanzania	Lending	Pay as you Go	\$ 80,000,000.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Debt Financing	Debt Financing	Stanbic Bank, CDC, FMO, Norfund, responsibility, Symbiotics and Triodos Investment Management	Corporate	



Country of Operation		Sub-Segment	Funding Received		
Tala	Kenya	Lending	Direct Lending Applications	\$ 30,000,000.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Series B	Equity	IVP (Institutional Venture Partners)	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Jumo	Kenya, Uganda, Tanzania, Zambia, South Africa, Rwanda, Ghana	Technology	Software as a Service	\$ 24,000,000.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Debt Financing	Debt Financing	FinnFund (Finnish Fund for Industrial Cooperation Ltd)	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
BIMA	Tanzania, Ghana, Senegal and other countries globally	Financial Management	Insurance Management	\$ 17,000,000.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Series C	Equity	AXIATA Digital Innovation Fund	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Mobisol	Tanzania and Rwanda	Lending	Pay as you Go	\$ 11,850,800.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Debt Financing	Debt Financing	FinnFund (Finnish Fund for Industrial Cooperation Ltd)	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Angaza	Tanzania	Lending	Pay as you Go	\$ 10,500,000.00	2017
	Type of Funding	Mechanisms	Funders	Investor Type	
	Series B	Equity	Emerson Collective and 4 Others	Foundation	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Azuri Technologies	Kenya	Lending	Pay as you Go	\$ 154,905.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Equity Crowdfunding	Equity	Several Investors		

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Jamii Africa	Tanzania	Financial Management	Insurance Management	\$ 750,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Seed Round	Equity	N/A		

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Flutterwave	Kenya, Nigeria, Ghana, and South Africa	Savings & Payments	Payment Intermediaries	\$ 10,000,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Series A	Equity	Greycroft Partners	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Netguardians	Kenya, Singapore, and Poland	Technology	Risk, Fraud and Compliance Management	\$ 8,500,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Series C	Equity	Freemont Management & 1 other	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Trine	Kenya, Tanzania, Uganda, Zambia	Lending	P2P Lending	\$ 7,961,910.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Series A	Equity	Gullspång Invest, Lars Thunell and Andrew Reicher	Foundation	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Lendable	East Africa	Lending	P2P Lending	\$ 6,500,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Series A	Equity	KawiSafi Ventures, Omidyar Network, Fenway Summer Ventures and many prominent FinTech angel investors from the United States	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Direct Pay Online	Kenya, Tanzania, Zanzibar, Zambia, Uganda, Rwanda, Ethiopia	Savings & Payments	Payment Intermediaries	\$ 5,000,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Private Equity Round	Equity	Apis Partners	Private Equity Firm	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Azuri Technologies	Kenya	Lending	Pay as you Go	\$ 5,000,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Debt Financing	Debt Financing	Standard Chartered Bank	Private Equity Firm	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
BitPesa	Kenya, Lagos, London, Luxembourg and Dakar	Savings & Payments	Multi / virtual Currencies	\$ 4,250,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Series A	Equity	Greycroft Partners	Venture Capital	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Branch	Kenya, Uganda & Tanzania	Lending	Direct lending Applications	\$ 2,000,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Commercial Paper	Debt Financing	Kenyan high net-worth individuals and fund managers; Arranged by Nabo Capital	Angel Investor	

Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Ensibuuko	Uganda	Technology	Software as a Service	\$ 500,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Seed Round	Equity	Ed Levinson	Angel Investor	
Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
Jumo	Kenya, Uganda, Tanzania, Zambia, South Africa, Rwanda, Ghana	Technology	Software as a Service	\$ 150,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Grant	Grant	MasterCard Foundation	Foundation	
Name	Country of Operation	Segment	Sub-Segment	Funding Received	Year
DusuPay International Ltd.	Kenya, Uganda & Tanzania	Savings & Payments	Payment Intermediaries	\$ 20,000.00	2017
	<b>Type of Funding</b>	<b>Mechanisms</b>	<b>Funders</b>	<b>Investor Type</b>	
	Seed Round	Equity	Startupbootcamp Cape Town	Accelerator	