

FINANCING TECHNOLOGY BUSINESSES IN KENYA

JOEL MACHARIA
macharia@macharia.co.ke

LEO MUTUKU
leo@ihub.co.ke



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ABSTRACT

There have been opinions that Kenya's growth in technology has been shrouded in hype and not founded on the creation of actual successful businesses. These opinions have particularly been driven by the lack of documentation on the profitability of emerging companies or the in-depth profiling of revenue positive businesses resulting from the increased investment in ICT. These knowledge gaps are hypothesized to limit the volume of deal flow in the technology sector, particularly within the start-up ecosystem. Through a series of research studies, iHub Research aims to build a knowledge base of technology investment research by provide insight for existing and upcoming players in the growing technology sector. This report provides a framework for studying funding and investment in technology start-ups and small businesses in Kenya.

BACKGROUND

Since 2010, Kenya has seen increased attention as Africa's technology hub. Spurred by the exponential increase of mobile phone subscriptions by over 24,000% between 2001 and 2012 (ITU 2013); proportional increased access to broadband Internet; and declining costs of access to the Internet, several mobile and web-based technology inventions and innovations have emerged from the country. M-Pesa, the local mobile-based money transfer service by Safaricom, has been wildly successful and an example of innovation capitalizing on this growing 'online and mobile' population. Similarly, several Kenyan companies have taken advantage of the new opportunities presented, such as the development of new web-based and mobile software. Further, the rapid growth and the billion dollar valuations of social media websites and apps, such as Instagram, Facebook and Twitter, have fuelled the drive to develop similar mobile and web-based businesses. In addition, the renewed focus by the government on ICTs and a consequent increase in enrolment in IT-based courses in post-secondary school institutions has resulted in a large number of young people with software and web development skills. ICT is expected to contribute 10% to Kenya's GDP by the year 2017, up from the current 2.5% (Kenya ICT Board 2013).

Over the same period, start-up hubs to support this emerging crop of young technology entrepreneurs and companies have grown from 2 in 2010 to the present 16 in Nairobi alone. These hubs range from open innovation spaces and co-working spaces to more formal incubators and accelerators. Several collaborative hackathons to surface new innovations and ideas have also been run while millions of dollars worth of grants have been awarded to support upcoming technology ventures.

However, there have been increasing opinions that Kenya's growth in technology has been shrouded in hype and is not founded on the creation of actual successful businesses (iHub 2012). This opinion has particularly been driven by the lack of documentation on the profitability of emerging companies or the in-depth profiling of revenue positive businesses resulting from the increased investment in ICT. In addition, investors and other international financiers coming into the country to explore new ventures are decrying the lack of fundable start-ups in technology. On the other side, entrepreneurs and businesses seeking financing to start, run and grow their businesses do not have adequate information on who to approach that would most likely fund them, what the requirements of potential funders might be, and how to meet these requirements. Several contextual issues such as Kenya's social, cultural, political and economical settings are not taken into account. This is largely due to knowledge gaps as a result of limited existing resources that inform on investment in local technology businesses. These knowledge gaps are hypothesized to limit the volume of deal flow in the technology sector, particularly within the start-up ecosystem (Omidyar Network and Monitor Group 2012).

THE PROBLEM

Several questions have, therefore, arisen as a result of this information paucity described above. These include:

1. Kenya Start-up ecosystem:
 - a. Who are the players in the Kenyan tech ecosystem?
 - b. What are their roles and relationship with each other e.g. Multinationals lobbying the government?
 - c. What are the broader contexts the ecosystem exists in e.g. legal, the social structures and culture?
2. Definitions:
 - a. What is the framework for providing standard and local definitions of elements in the ecosystem e.g. what is a start-up?
 - b. What is an accelerator vs. an incubator? Seed vs. angel investment?
3. Investment trends:
 - a. What are the investment opportunities in tech?
 - b. Which are the funded Kenyan tech start-ups?
 - c. Who are the current funders in the tech ecosystem?
 - d. How much money are they seeking to invest: in total, per start-up?
 - e. What are the funding structures in use (debt, quasi debt, convertible debt etc.) and what is their uptake?

PURPOSE OF THIS REPORT

Through a series of research studies, iHub Research aims to build a knowledge base of technology investment research by provide insight for existing and upcoming players in the growing technology sector. Some of the expected outputs include:

1. A framework for localising commonly used definitions;
2. A stakeholder map showing the various segments of players in the tech ecosystem and their relationships;
3. Detailed profiles of start-ups with a focus on funding structure and their revenues;
4. Investments and funding instruments in use in the region;
5. Profiles of financing institutions and parties: Angels, banks, seed funds, private equity including information on investments done or level of investment;
6. Rating/feed-back from the funded;
7. Detailed profiles of all, or the most active, stakeholder per segment.

This report provides a framework for studying funding and investment in technology start-ups and small businesses in Kenya.

THE KENYAN START-UP ECOSYSTEM

Before we can study investments in Kenyan technology start-ups, we must attempt to define the ecosystem in which they operate. This section defines the roles of different stakeholders identified that form the start-up ecosystem.

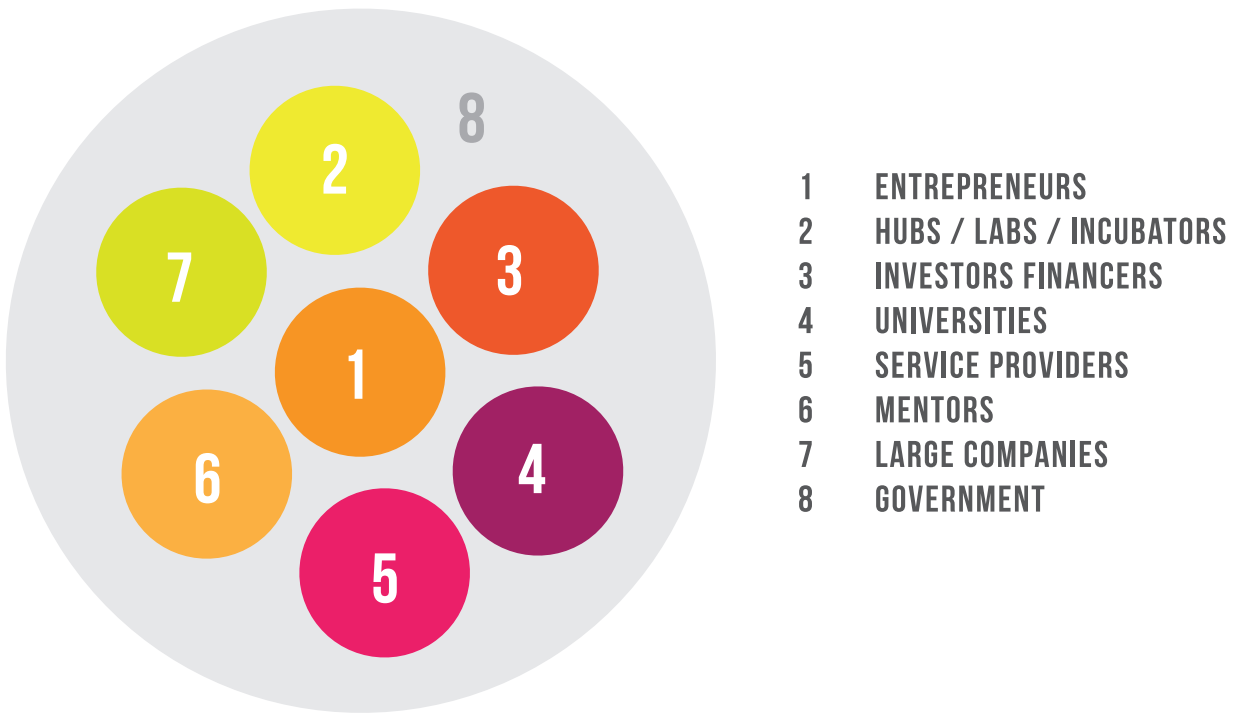
CHALLENGES IN DEFINITIONS

A business ecosystem is described as “An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. The economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organisms also include suppliers, lead producers, competitors, and other stakeholders. Over time, they co-evolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies. Those companies holding leadership roles may change over time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments, and to find mutually supportive roles.” (Moore 1996).

The local technology ecosystem can therefore be thought of as a linked network of organizations— service providers, suppliers, distributors, customers, competitors, government etc. – broadly involved in the delivery of and consumption of technology based products and services (Investopedia US n.d.). However, there are several challenges arising in defining Kenya’s start-up ecosystems and players. The start-up ecosystem is relatively nascent and broadly compared to already established western ecosystems without careful consideration for the context in which it thrives. It has therefore been difficult to give definite parameters, for instance, is the definition of a start-up based on years since incorporation, business model, stage of financing, or by other metrics?

Steve (Blank 2010) defines a start-up as a business that is actively seeking a repeatable and scalable business model. By this definition, questions therefore arise on whether a business that is starting in a long-defined industry ceases to be a start-up; is a start-up defined by use of technology (Kachwanya 2013, Graham 2012)? Another challenge observed is in the differentiation between accelerators and incubators, which happen to be key stakeholders emerging in and catalysing this start-up ecosystem. Many so-called organisations in Kenya, from co-working spaces to hubs have been referred to as incubators, even while they may not be providing any business support services.

TECHNOLOGY ECOSYSTEM IN KENYA



ENTREPRENEURS

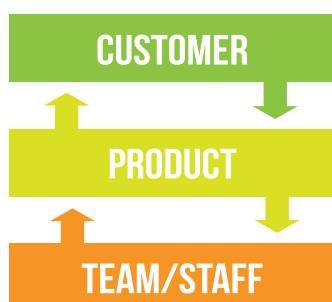
An entrepreneur can be defined as a person who sets up a new business, taking on financial risks in the hope of profit . According to an article by the Harvard Business Review, entrepreneurs therefore, are responsible for pulling together the resources required to start a business making them the axis of the technology ecosystem. These entrepreneurs set up what are then known as start-ups (again with this definition arguable) and their businesses fall into two broad categories: product-oriented businesses and service-oriented businesses.

Product businesses create or buy and sell a product that is to be consumed or used by their customers. The businesses efforts are thus directed towards the product. Examples include the popular Instagram and the local company, Uhasibu. Service businesses on the other hand sell skills in units of hours required, or projects done. These would include web development firms, accounting firms, networking and other professional services firms. Hybrid firms offer both products and services, either as completely separate business lines, or as add-ons to products, for example, a business that sells banking software, and charges for customization, installation and maintenance.

Following the increased affordability and access to Internet connections and the successes of major products such as M-pesa, we have observed that mobile-based and web development focused start-ups are increasing popular ventures. The emergence of such business has led to Kenya being coined the Silicon Savannah

The diagram below shows the mapping of Kenya’s technology start-ups and businesses.

PRODUCT BUSINESSES



FEATURES

- TEAM WORKS ON PRODUCT/SERVICE.
- CUSTOMER BUYS PRODUCT/PAYS FOR SERVICE.
- EASILY SCALABLE.
- RELY ON TECHNOLOGY FOR SCALING.

COMMON REVENUE MODELS

- UNIT SALES (HARDWARE)
- SUBSCRIPTIONS
- USAGE BILLING:
*PER HR/ GB/ TRANSACTION ETC.



FEATURES

- BUSINESS EMPLOYEES WORK ON CUSTOMER PROJECTS.
- USUALLY A CONSULTING/ AGENCY RELATIONSHIP.
- HUMAN CAPITAL INTENSIVE RELY ON STAFF NUMBERS FOR SCALING.

COMMON REVENUE MODELS

- CONSULTING FEES
*PER HR/ PER PROJECT
- AGENCY FEES

HUBS, LABS, ACCELERATORS AND INCUBATORS

Labs and hubs are open spaces in which tech communities gather to work, discuss ideas and network. The iHub, “an open space for the technologists, investors, tech companies and hackers in the area” is one of the first hubs to open up in Nairobi. This space is a tech community facility with a focus on young entrepreneurs, web and mobile phone programmers, designers and researchers. It is part open community workspace (co-working), part vector for investors and VCs and part incubator .” Due to their community focus, hubs, accelerators and incubators tend to be aggregators of innovation and be a nexus point for growing the ‘techpreneur culture’ (Gathege and Moraa 2013). Others include Pawa254, and the Nest, both of which cater to creative.

The table below summarises one way of differentiating between accelerators and incubators.

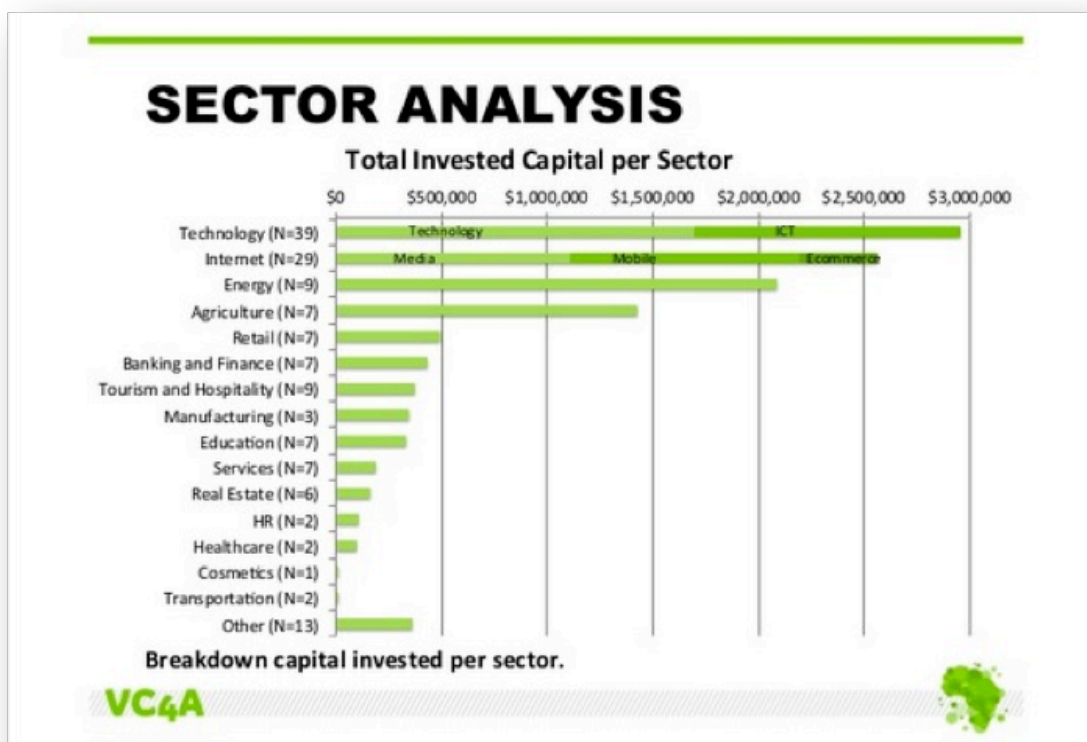
ACCELERATORS	INCUBATORS
VC-funded for profit	Mostly not for profit initiatives
Short intensive 3 month programs	Less time pressure/ less intensive
Large mentor driven business network	Small mentor driven research network
Is extremely selective, few people get accepted into program	Many get accepted to the program
Require 6-8% equity stake	No equity stake
Offers small seed funding	Usually no funding
Applies “lean startup” methodology	Applies management methodology

Events are a key element of start-up communities and tech ecosystems as they allow various players in the ecosystem to interact, share experiences and networks. Typically, technology events form the backbone of activities run by tech hubs in collaboration with corporate organizations. Events enable new and promising businesses to be discovered and funded through the invaluable networking opportunities they provide. Some of the major recurring technology events in Kenya's technology ecosystem include:

- a. Fireside Chats and JumpStart by iHub, which have been opportunities for entrepreneurs to listen to and share experiences with pioneers or prominent figures in the ecosystem. These speakers may be entrepreneurs, subject matter experts, investors or corporate executives. Past speakers have included Vinton Cerf, the 'father of the Internet'; John Waibochi, Founder/CEO of Virtual City ; Bob Collymore and Michael Joseph, CEOs of Safaricom.
- b. DEMO Africa – A showcase of new start-ups from Africa, seeking publicity and/or funding.
- c. Pivot East – A pitching competition for start-ups in East African start-ups in tech, in different categories

INVESTORS/FINANCIERS

Investors and financiers provide entrepreneurs within the technology ecosystem with the required capital to start, grow or expand their businesses. Financiers provide funding either as equity, debt, or as a hybrid of both (IBM 2013). Definitions of these funding structures are provided in the next section. According to Venture Capital for Africa, an online community for investors and start-ups, African Start-ups raised over US\$12 Million between 2012 and 2013 (White 2013). Donors and grant funders too have played a crucial role in the growth of the Kenya technology ecosystem. Funds from such organizations have not only developed tech-hubs such as the iHub (Hersman 2013), they have also funded promising entrepreneurs through grants and hackathons. Below is a sector analysis that VC4A did on capital invested per sector in 2013.



Some active donors in Kenya's tech ecosystem include:

1. Omidyar Network: This fund helps scale both for-profit companies and non-profit organizations with a focus of catalysing broad, positive social impact. The Network has supported Ushahidi, and the iHub, Kenya's first technology hub.
2. InfoDev: A global partnership program in the Financial and Private Sector Development Network of the World Bank Group. Infodev supports growth-oriented entrepreneurs and assists entrepreneurs to secure appropriate early-stage financing. Infodev also convenes entrepreneurs, investors, policymakers, mentors and other stakeholders for dialogue and action. InfoDev funded Kenya Country Business Incubators in 2004, and the m:Lab East Africa in 2011.
3. Hivos: Hivos is an international development organisation and provided initial funding support to the iHub.

UNIVERSITIES

Universities have 5 resources relevant to entrepreneurship: students, professors, research labs, entrepreneurship programs and technology transfer. Universities provide trained young professionals who go on to become entrepreneurs or working for entrepreneurial companies (Feld 2012). Some of the skills that these universities train include: software development, business management, accounting, financial management etc.

Some of the universities contributing significantly to Kenya's technology ecosystem are Jomo Kenyatta University of Agriculture and Technology (JKUAT); The University of Nairobi; Strathmore University; and Kenyatta University. These universities are also contributing to the growing corpus of research and knowledge on technology in the region and often university lecturers provide advisory and mentorship to policy makers and entrepreneurs. Some examples of the research work carried out by professors includes "Money; Real Quick" a book that provides insights into MPESA written by Tonny K. Omwansa, a lecturer at the School of Computing and Informatics, University of Nairobi.

More formal research units have also been established in these universities to identify new technology and processes that can be applied in promoting technology entrepreneurship. One example is iLab Africa at Strathmore University that studies the opportunities for technological innovations and solutions to addressing public sector issues such as health, education and agriculture. Further, universities have established programs specifically aimed at boosting student entrepreneurship. These programs vary from workshops and classes to incubation centres located within, and supported by the universities. Some of these programs include:

- a. iBiz at Strathmore University;
- b. The Regional Centre For Enterprise Development at Inoreero University;
- c. The Chanadaria Business Innovation and Incubation Centre at the Kenyatta University;
- d. Enterprise Development Centre at the JKUAT;
- e. Centre for Entrepreneurship Innovation and Technology Transfer at the Technical University of Kenya.

Technology transfer offices provide for the commercialisation of inventions and intellectual property that developed by the universities through research. Examples of locally available technology transfer services and offices include the Centre for Entrepreneurship Innovation and Technology Transfer at the Technical University of Kenya and the MEA fertilizer factory's partnership with University of Nairobi to produce fertilizer that was 10 times cheaper than that in the market (Ratemo n.d.).

SERVICE PROVIDERS

While the above form the key players in the ecosystem, there are service providers in the periphery that link these different actors. Such providers include lawyers, recruiters, marketing consultants and accountants and provide necessary support to operations in the technology ecosystem. Some of the firms that have been active in the technology space in Kenya include:

- a. Ark Africa, a design and branding agency, behind the well known brands iHub, Zuku and Pete's Coffee;
- b. CFL Legal: A law firm that specialises in corporate, financial and Intellectual property law. Its partners have worked in mergers and acquisitions, and in technology firms.
- c. Open Capital Advisors: Financial services and strategy consulting firm based in Nairobi that supports high-impact businesses, investors, and innovative solutions throughout East Africa.
- d. Viktoria Solutions: Consulting firm that provides financial and business advisory service and works closely with the m:Lab East Africa to coach the incubated businesses.
- e. Lattice Consulting: Provides training and corporate financial services for small and medium businesses in different industries.
- f. Armada Human Capital: A recruitment firm that helps firms recruit and train staff as well as design job roles. Armada HC also carries out staff leasing, for companies looking to keep their staff management costs low.

MENTORS

Mentors are experienced entrepreneurs or investors who actively contribute time, energy and wisdom to coach businesses (Feld 2012). Mentorship programs are crucial part of incubators and accelerators. However, they can be separate from organisations. Some independent mentoring programs include:

- a. Mara Mentor is an initiative of the Uganda billionaire/philanthropist Ashish Thakkar's Mara Group Foundation and is creates alliances between young enterprises and successful companies.
- b. Professional Business Mentors Association of Kenya: PBMNet is a network of professionally trained business mentors that is dedicated towards the development, registration, accreditation, certification, and regulation of the business mentorship profession in Kenya. This network is affiliated to the Inoreero University's Regional Centre For Enterprise Development.

There are also several informal peer mentorship programs organised by entrepreneurs. Mentors assist in enabling funding as they help the entrepreneurs refine their ideas and business models, carry out market introductions and in some cases, introduce the entrepreneurs to potential funders.

LARGE COMPANIES

Large companies are business and organisations that are beyond the start-up and growth phases of the business cycle. They have more resources that businesses that are lower down the business cycle can tap into. They provide markets and access to markets, inputs in terms of technology and funding and can lobby the government to create environments conducive to the entire ecosystem. Some of the large companies operating in the Kenyan ecosystem include local companies such as Safaricom - Kenya's largest mobile network operator by subscriber numbers -as well as international corporations such as Intel and Microsoft. For instance, Intel has partnered with iHub to help improve developer skills through different workshops while Safaricom has previously provided Internet bandwidth.

GOVERNMENT

We cannot undermine the role that the Government plays in influencing the technology ecosystems. This is apparent in the following ways:

1. Provision of Legislation:

Several laws are passed in parliament that directly or indirectly affect players in tech ecosystems. Some of these critical laws include:

1. The Companies Act (Cap 486) that covers the formation and operation of companies in Kenya;
2. The Copyright Act (Cap 130) that outlines the use of copyrights and governs crucial intellectual property (IP) matters;
3. The Civil Procedure Act (Cap 21) that governs the processes by which businesses and individuals are required to follow when seeking the assistance of the court in dispute resolution;
4. The Employment Act (Cap 226) that outlines the rights and obligations between employers and employees;
5. The Capital Markets Acts (Cap 485A) that governs how businesses may raise money from the public via the capital and money markets.

As mentioned above, legislation also covers the effectiveness of the court system in resolving disputes that may arise. A good example of this influence is the 2009 case, where the Music Copyright Society of Kenya (MCSK), sued Cellulant, a technology start-up business that was in the business of selling ringtones. The MCSK claimed that Cellulant had broken the law by signing agreements with individual artists, whose music they sold as ringtones, rather than the Society (Kimani 2009, Wambugu 2009, Kenya Law 2009). The resolution of that case sets precedence of how start-ups in music distribution such as Mdundo and Waabeh would have to deal with music copyright.

2.Fiscal policy:

Fiscal policy is the use of government revenue collection (taxation) and expenditure (spending) to influence the economy (Sullivan and Sheffrin 2003). Two main instruments determine fiscal policy: changes in the level and composition of taxation and government spending in various sectors.

In Kenya, the gazetting of the Value Added Tax (VAT) Act 2013 raised the VAT on technology items that were previously untaxed, such as computers, books and mobile phones. This is deemed to have a negative effect on the businesses in the tech ecosystem, by shrinking demand due to increased prices of technology items. On the other hand, the government plan to issue a laptop to every Standard one child creates opportunity not just for hardware sales, but also for educational content developers.

3.Monetary policy:

Monetary policy, by definition, is a tool used in the preservation of the value of the currency in an economy, by controlling the amount of money in circulation. The government influences amount of money in circulation by controlling borrowing between banks by fluctuating the Central Bank Rate. This in turn affects the rate at which businesses can borrow from the banks, affecting their operations.

4.Entrepreneurship support programs:

Entrepreneurship support programs are aimed at assisting young entrepreneurs access opportunities. They include Kazi Kwa Vijana initiative established in 2009 aiming to employ both urban and rural youth in labour intensive public works projects like road maintenance, water harvesting, afforestation and waste collection; and the Access to Government Procurement Opportunities.

Other programs include business incubators established as state-owned corporations e.g. Kenya Industrial Estates which established Kenya's first business incubator in 1967. The government also provides access to financial assistance through grant and loan programs. Some of the programs include the Uwezo Fund and the Youth Enterprise Development Fund.

FINANCING TECHNOLOGY BUSINESSES IN KENYA

OVERVIEW

The greatest challenge facing entrepreneurs across Africa is the state of entrepreneurial assets, specifically:

1. Financing;
2. Skills and talent;
3. Infrastructure (Omidyar Network and Monitor Group 2012).

This report takes an initial stab into assessing the first asset, financing for technology businesses. The International Finance Corporation has estimated that as many as 84% of small and medium-sized enterprises (SMEs) in Africa are either un-served or underserved when it comes to access to finance, representing a value gap in credit financing of approximately USD 140-170 billion (Peer Stein 2011). With regards to business financing, the Omidyar report further identifies that while many Afro- entrepreneurs bemoan a limited supply of capital, existing financiers point out that many projects presented are not fundable.

FUNDING REQUIREMENTS

As start-ups mature and go through different stages in the business cycle, their financing requirements and sources of capital differ. We identify the following as stages typical of a business cycle:

- Seed/development;
- Start-up;
- Growth;
- Established;
- Expansion;
- Maturity;
- Exit.

INTERNAL VS. EXTERNAL FINANCING

The choice between internal and external funding is often determined by how far along the business life cycle a business is.

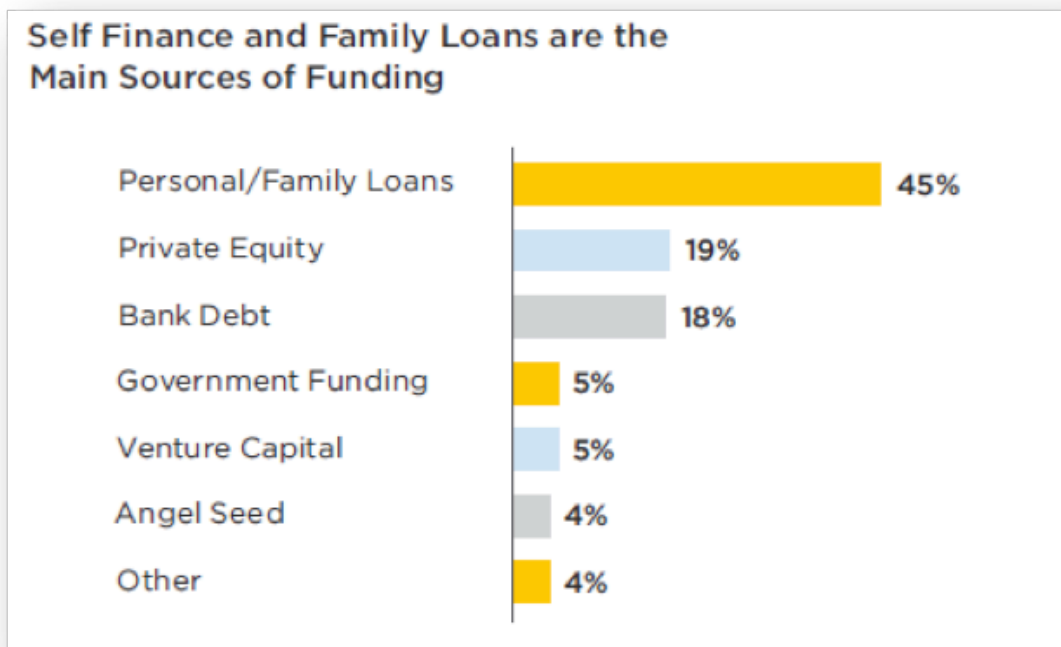
In the early stages, seed, start-up and growth phases, the business more often than not has generated little in money from sales and will often rely on external funding to boost its operations and get it to the next stage. As it grows and hits maturity, the money made from sales and profits retained increases the possibility for a business to fund almost all its operational needs. However, there are cases where a business may need to make large capital purchases e.g. new equipment or entire companies and for these, it may need to look outside the company for financing.

External business financing falls into two broad types:

- Equity financing where an entrepreneur trades a percentage of ownership of a business, in the form of shares, for a specific amount of money or
- Debt financing where a business or business owner borrows money that will be repaid over a pre-agreed period and at an agreed cost, called interest.

COMMON SOURCES OF BUSINESS FUNDING

The main sources of funding for businesses in Sub-Saharan Africa as personal/family loans followed by private equity, bank debt, government funding, venture capital, angel and seed funding and other sources respectively (Omidyar Network and Monitor Group 2012). The figure below shows the popularity of each of these sources of funding according to this report



PERSONAL/FAMILY/FRIENDS:

Personal funds may be savings from a period of employment, profit from other businesses, from personal loans, or from personal sources such as inheritance. Loans, grants and equity investments can also be obtained from friends and family who invest mostly from the relationship with the entrepreneur, rather than based on the expected returns from the business.

BANK DEBT:

Banks provide different kinds of loans - from unsecured personal loans that rely on the entrepreneur's personal credit history; to business loans; to asset financing loans that a business uses to acquire the big-ticket items required to increase its capacity (such as cars and factory equipment).

Banks look to answer 2 questions when evaluating borrowers:

- Is the borrower able to pay back the money borrowed? They assess the businesses cash flow, income statements and business plans to identify if the business can afford the repayments
- If the borrower fails in their repayment, how do we recover the funds? To answer this, they require the borrowers provide a security; something the bank can lay claim to should the borrower be unable to pay.
For taking on the risk of lending money to the business, banks charge an interest rate on the money lent. Interest rates vary depending on the state of economy.

Entrepreneurs can also borrow money from Savings and Credit Co-operative societies (SACCOS), which offer much more lenient borrowing terms and charges. Like banks, they also base their loans on the ability of the borrower to pay, and

ANGEL INVESTORS:

An angel investor is a wealthy individual that may put in his or her own money into a start-up in exchange for convertible debt or equity. They will usually have a personal interest in the industry, or the individual entrepreneur and are driven by three factors - risk, guts, and business sense. While some will be looking for the thrill of being involved in a start-up, others are out to make a profit from the opportunity identified by the entrepreneur.

INVESTMENT FUNDS:

Investment funds pool and manage funds from investors, and make investments on their behalf. These funds come in different types and sizes and focus on different industries such as manufacturing, software development or communication infrastructure, and different stages of the business life cycle. These funds may be in the form of seed funds, Venture Capital (VC) and Private Equity (PE) funds.

- Seed funds focus on businesses that are in the idea stage and in the set up process. An example is 88MPH, an accelerator that provides early-stage web/mobile companies with up to USD 100,000 in seed funding.
- Venture capital funds focus on young companies that are still early in the business cycle but at a later stage than the seed funds; they may require the business to have a working prototype and a few customers in their books.
- Private equity funds often invest in businesses in the growth or mature phase, and look to help them increase their market share, revenues and efficiency. Examples are Citadel Capital, investors in Rift Valley Railways, and TBL Mirror Fund, investors in Cellulant, the mobile services company.

GOVERNMENT FUNDING:

Kenya's government, by itself and in collaboration, has put in place funding structures for entrepreneurs. These target different types of entrepreneurs and include:

- The Youth Enterprise Fund (YES): A KES 4 Billion revolving fund. Established in 2006, the YES has lent over 5.7 Billion over six years. This Fund is intended to finance youth groups and young entrepreneurs between the ages of 18 and 35. The funds are disbursed through intermediaries such as banks.
- The Women's Fund: The Women Enterprise Fund is a semi-autonomous government agency established in August 2007, to provide accessible and affordable credit to support women to start and/or expand their businesses. This fund mainly provides access to financing to women's groups at the constituency level.
- Tandaa Content Grant: This is a three-year grant program worth USD 4 million to support the development of local digital content. Tandaa is funded by the World Bank and managed by the Kenya ICT Board and targets young companies and individuals. A section is also reserved for established companies as a matching grant.
- Uwezo Fund: A youth and women's fund established from KES. 6 Billion that was set aside in case of a presidential run-off during the 2013 election. The fund targets youth and women groups and also works in tandem with the Youth Access to Government Procurement Opportunities program.

OTHER SOURCES

1. Factoring:

A business can raise money by 'selling' its accounts receivable, that is, the money that is owed to it by its clients. This is known as factoring. Factoring can be very expensive, depending on the borrower, the companies that owe the borrower money, and the period for which the money is needed. In the case of well-established, blue chip companies, the rates would be lower than they would be with relatively unknown companies.

2. Suppliers:

Suppliers can provide a business with financing by extending their products and services on credit allowing the business to use, value-add or resell the services/products and pay the supplier from the revenues generated. This therefore reduces the amount of cash the business has to have in place to operate.

3. Customers:

Customers provide a business with financing by prepaying for goods, that is, paying for goods with the order, thus allowing the business to use the payment to develop or purchase the goods the customer has paid for. For a start-up, this would be an ideal situation as the business can be bootstrapped and would minimize the requirement for outside financing.

4. Grants:

A grant is a sum of money given by an organization or government for a particular purpose. One of the most well known grants is the Kenya ICT Board's Tandaa Grant that looks to help entrepreneurs start and grow local online businesses. While you do not have to repay grants, they are not a reliable source of funding as they often come with terms as to how they will be used, and their disbursement is at the discretion of the grantor.

5. Crowd-funding:

Crowd-funding is a relatively new source of financing for entrepreneurs but has grown very rapidly, in the USA in particular. Popularised by websites such as kickstarter.com and indiegogo.com, crowd-funding works by relying on small amounts from many people to reach a set target. In exchange for contributing, the entrepreneur can offer the product they are looking to develop, or can offer different items, ranging from the company's mascot to advertising on the company's website.

One of Kenya's tech crowd funding success stories is the BRCK, a wireless modem built with power back up for Africa created by Ushahidi, a non-profit crowd-mapping software company and the parent of the iHub. The company raised US\$ 170,000 in this manner.

6. Peer-to-peer lending (P2P):

Pioneered by Kiva (kiva.org), an American non-profit organisation, P2P lending is a method of debt financing that enables previously unrelated individuals or "peers" to borrow and lend money without the use of an official financial institution as an intermediary (banks). It takes place on online lending platforms that are provided by peer-to-peer lending companies on their websites.

An entrepreneur looking to raise money on a P2P website submits his application to the service and goes through a credit check run by the P2P company. The application is then posted on the P2P site where interested lenders can advance the entrepreneur the money requested, either in whole, or in part. The entrepreneur then repays the money through online payment means, or local disbursement and repayment partners, such as Faulu Kenya, one of Kiva's local partners.

7.Capital Markets:

An entrepreneur can raise external financing from the public by running an initial public offering (IPO), in which a portion of the company is offered to the public at a particular price; or by issuing a bond, which is a special kind of loan in which the company has to pay the money back with interest, called a coupon. In Kenya, Raising money from the public is highly regulated by the Capital Markets Authority, and has very stringent requirements in terms of assets owned, company structure and accounting requirements.

The Nairobi Securities exchange launched the Growth Enterprise Market Segment (GEMS) aimed at SMEs to help them raise capital by listing on the stock exchange (Nairobi Securities Exchange n.d.). The primary requirements for a company to qualify to list on the GEMS are:

1. Public company registered under the Companies Act;
2. Minimum fully paid up capital of 10 million;
3. At least 100,000 shares in issue;
4. Free transferability of shares;
5. Adequate working capital and solvency;
6. Operation for at least one year;
7. No profitability record required;
8. 5 directors, 1/3 non-executive;
9. Directors with no bankruptcy, fraud, criminal offence or financial misconduct proceedings for 2 years;
10. Competent board and senior management – at least 1 year experience in the business;
11. 1/3 board must have completed Directors Induction Program and the rest within 6 months of listing;
12. All issued shares to be immobilized;
13. 15% of the shares must be available for trading & held by at least 25 independent shareholders within 3 months of listing;
14. Controlling shareholders lock in for 24 months;
15. Nominal Advisor appointed by written contract.

These requirements make it considerably easier for businesses to list on the market than before, particularly the 1 year minimum operation threshold and lack of a profitability requirement. The minimum threshold of 1 year for senior management experience means that it will be possible for entrepreneurs in their early 20's to qualify for listing on the NSE.

CONCLUSION

This framework so far has attempted to provide an overview of the existing players in the technology sector in the Kenya and different financing options available to support the technology entrepreneurs, who are at the heart of the ecosystem. In subsequent studies, we expect to disaggregate the financing options listed, provide value of capital invested in technology start-ups through each option. We also aim to build a corpus of knowledge on funded technology ventures, trends in financing businesses and an index to measure the 'health' of investments in technology sector by measuring success of different funds and ventures funded. We aim to use this study series to provide instruments that can help build investor confidence in local start-ups. We welcome feedback on this framework and methodologies used.

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NGONG ROAD, NAIROBI
KENYA

Email: research@ihub.co.ke

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