ICT Hubs model: Understanding the Key Factors of the iHub Model, Nairobi Kenya

Draft Report By

*HubResearch

K N O W L E D G E , D I S C O V E R Y , S H A R I N G

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*Hub

T E C H N O L O G Y , I N N O V A T I O N , C O M M U N I T Y
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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>AEO</td>
<td>African Economic Outlook</td>
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<tr>
<td>CCK</td>
<td>Communication Commission of Kenya</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>GCI</td>
<td>Global Competitiveness index</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>ICT</td>
<td>Information and Communications Technology</td>
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<td>IDI</td>
<td>ICT Development Index</td>
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<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>NRI</td>
<td>Network Readiness Index</td>
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<td>TDD</td>
<td>Test Drive Development</td>
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<tr>
<td>USAID</td>
<td>United States Agency for Information Development</td>
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<td>UX-Lab</td>
<td>User Experience Lab</td>
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iHub Research is conducting on-going research to understand the unique factors that make up ICT Hub models across Africa. The objective of the study is to understand the models of the Hubs/Labs, its entrepreneurs and the sustainable impact of these Hubs/Labs in spurring innovations that improve livelihoods. Little inquiry, if any, has been done to understand the various ICT Hub models developing all over Africa, and how such factors influence the entrepreneurs in the spaces. iHub Research aims to fill this dearth of information through a phased study.

This study reveals that there is solid evidence that ICT sector growth (predominantly due to mobiles) is making an important direct contribution to economic growth and development. The government has been keen on enacting policies, infrastructures and regulatory frameworks to enhance ICTs growth. This has led to enabling environment that has led to the adoption of the ICT Master Plan, flagship programs such the technology park at Konza City, establishment of initiatives such as the digital villages and ICT institutions such as the Kenya ICT Board which are all aligned to Vision 2030. This clearly demonstrates the Kenyan government’s commitment to ICT growth and development.

Despite the challenges faced at iHub, there is a lot to show that the hub has played a great role revolutionizing entrepreneurial innovation through mentoring and training a new crop of young entrepreneurs who have had successful startups over the few years it has been operational. iHub through its various initiatives such as iHub research, UX lab and iHub Cluster can claim its rightful position in the Kenyan context as an innovation centre where techpreneurs are nurtured to transform the country into an information rich and knowledge-based economy as envisaged in Vision 2030.

**Key words**: ICT Hubs, Kenya, model, guiding principles, sustainability, entrepreneurs
1.1 KENYA COUNTRY PROFILE.

Kenya is located in Eastern Africa with a population of about 41.6 million people as at 2011 with its capital city being Nairobi and occupying total surface area of about 580,367 square kilometers. The population growth rate is at 2.44% as at 2011 (World Bank, 2013). Kenya borders the Indian Ocean, between Somali (East) and Tanzania (South), Uganda to the west and Ethiopia and South Sudan to the north (CIA World Factbook, 2013) as illustrated in figure 1 below.

Economically, World Bank (2013) observes that the country total GDP was recorded at 33.6 billion USD as at 2011. In 2011 Kenya's economy recorded “checked” growth, primarily driven by financial intermediation, tourism, construction and agriculture sectors. Gross domestic product (GDP) growth rate for the first nine months was estimated at 4.2%, down from 4.9% in the same period in 2010.

Figure 1: Pictorial Kenya and her neighbors

Source: CIA World Factbook
In 2011 an unstable macroeconomic environment characterized by rising inflation of 14%, exchange rate depreciation and high energy costs curtailed growth. The country also experienced limited rainfall in the first half of 2011, which affected aggregate food production. The year 2011 recorded a moderate positive growth estimated at 4.5%. Growth is expected to rise to 5.5% in 2013 (African Economic Outlook, 2012). The major contributors to the GDP sector-wise are service industry with 61%, followed by agriculture at 24.2% while industry contributes 14.8%. However, labour force by sector contribution; agriculture leads by 75% while industry and services employ the remaining 25% (CIA, World Factbook, 2013).

Youth unemployment is a growing problem in Kenya. According to the 2009 population and housing census, 34% of the Kenyan population is aged between 15 and 34. This is a substantial workforce that could contribute significantly to economic growth. However, much of this labour force is unutilized. According to the Kenya Household Integrated Budget Survey (KIHBS) of 2005/06, unemployment stood at 25% for the age group 15-19, 24.2% for 20-24-year-olds, 15.7% for those aged 25-29 and 7.5% for the age group 30-34. It is devastating to note that youth unemployment constitutes 70% of total unemployment in Kenya (AEO, 2012).

The high unemployment among the young has an implication for income distribution. This is because returns to growth accrue to only those who supply the factors of production. With the favourable economic achievements realized in the last ten years, unemployed young people are missing out on the gains. This calls for urgent intervention by the Kenyan government to address the issue of youth unemployment. Youth unemployment in Kenya is mainly attributed to the fact that Kenya’s economy is currently dependent on agriculture. However, Kenyan youths are moving from rural to urban areas in large numbers. The urban areas are not able to generate jobs as fast as the growth in population there. This factor has led to high levels of youth unemployment (AEO, 2012).

Kenya strives to leverage ICTs in all sectors of the economy to improve on various indices that shows Kenya being ranked on average positions although it has a lot of potential. For instance, the Global Competitiveness Index (GCI, 2012-13) which assesses the ability of countries to provide high levels of prosperity to their citizens through measuring the set of institutions, policies, and factors that set the sustainable current and medium-term levels of economic prosperity ranks Kenya at position 102 out of 144 countries.
The Index shows that Kenya’s competitiveness ability is average and more needs to be done to catch up with leading economies in Africa such as South Africa and Mauritius, which rank at position 52/144 and 54/144 respectively. Additionally, the Network Readiness Index (NRI), which according to the World Economic Forum (WEF), measures the propensity for countries to exploit the opportunities offered by ICTs ranked Kenya in position 93 out of 142 countries (WEF, 2012). In 2013, Kenya ranked at position 121/185 in World Bank Doing Business report. Table one below captures the summary of the key socio-economic indicators discussed above.

Table 1: Key socio-economic indicators in Kenya

<table>
<thead>
<tr>
<th>Population (2011)</th>
<th>41.6 million</th>
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<tbody>
<tr>
<td>Population growth rate (2011)</td>
<td>2.44%</td>
</tr>
<tr>
<td>Area in Sq.Km.</td>
<td>580,367</td>
</tr>
<tr>
<td>Capital city</td>
<td>Nairobi</td>
</tr>
<tr>
<td>GDP in USD (2011)</td>
<td>33.6 billion</td>
</tr>
<tr>
<td>GDP growth rate</td>
<td>4.2%</td>
</tr>
<tr>
<td>GDP composition by sector:</td>
<td>Service (61%), Agriculture (24.2%) and Industry (14.8%).</td>
</tr>
<tr>
<td>Youth unemployment rate (2009)</td>
<td>34%</td>
</tr>
<tr>
<td>Ease of Doing Business (2013)</td>
<td>121/185 countries</td>
</tr>
<tr>
<td>GCI (2012-13)</td>
<td>102/144 countries</td>
</tr>
<tr>
<td>NRI (2012)</td>
<td>93/142 countries</td>
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1.2 ICT DEVELOPMENT IN KENYA

Kenya, through Vision 2030 recognizes ICT as a foundation for a knowledge economy. Developing affordable information and communication network infrastructure and applications is central to building the information economy. Accordingly, the Government’s objective is to ensure that the country has a competitive telecommunications industry that delivers reliable and affordable services and products for the economic and social benefit of citizens.

The Kenya government has been instrumental in developing ICT sector towards transforming the country into a knowledge-based economy through digital empowerment, culminating in the launch of the first National ICT Masterplan in 2012. This is a five-year plan that seeks to drive citizen adoption of the Vision 2030 priorities through ICT policies and initiatives. The master plan projects that by 2017 Kenya’s ICT industry will be contributing an estimated US$2 billion (some 25 percent of Kenya’s GDP) and have created around 500 new tier-1 ICT companies and over 50,000 jobs (Kenya ICT Board, 2012).

In a recent report by the Communication Commission of Kenya (CCK) (Sep, 2012), Kenya’s mobile subscribers have increased to 30.4 million subscriptions from 29.7 million mobile subscriptions recorded during the previous quarter. This number represents a total country penetration of about 77% using a total population of 39.5 million. Should this trend continue undeterred, Kenya could be looking at 100% mobile penetration, like South Africa’s, sooner than the year 2016. According to the same report, the country has an estimated number of 13.5 million Internet users, which is attributed to increased roll-out of fibre network.

Kenya is positioning herself as Africa’s ICT Hub with attempts by the government and private sector to invest in ICT-related infrastructure. As a show of confidence in Kenya’s potential, Google, Microsoft, IBM, Qualcomm among other international firms, now have fully fledged offices in Kenya. Last year the Nokia CEO, Stephen Elop was in town for a tour to meet Kenyan developers and he said they had made conscious decision with regards to strategy for Kenya and Africa, to increase investments in Kenya and Eastern Africa region by 25% from what they did last year. Those investments are in the form of investing in the Nokia research center based in Nairobi, investing in helping developers build applications and investing in the marketing activities to ensure success in the region.
The IBM Research Lab, a partnership between Kenya ICT board and the American tech firm, was also opened last year in Nairobi. IBM Africa Lab, located at the Catholic University of Eastern Africa Langata campus in Nairobi, will focus on three key research areas which include digitization of public service through e-governance solutions; urban development and planning; and ICT skills training (Africa Review, 2013).

Kenya has set up a robust telecommunications infrastructure and high capacity International gateways. The country has also made remarkable progress putting in place an ICT policy framework and implementation strategy, complete with measurable outcomes and time frames. At the front line has been the Kenya ICT Board, which has in the last three years been realizing its mission of making the country one of the top 10 global technology centers.

In addition, there are other initiatives that are in place geared towards promotion of Kenya as an ICT hub in the region. IST Africa (2012) observes that laying of the undersea Fibre Optic Cable from Mombasa to Fujairah in UAE linked Kenya to the global fibre optic submarine system after its completion in 2009.

This project has since provided Kenya with a reliable and affordable high capacity bandwidth. Other initiatives that have led to integration of ICTs in the country include Kenya Education Network (KENET) which is a National Research and Education Network that promotes the use of ICT in teaching, learning and research in higher education institutions in Kenya. In 2010, the government rolled out an initiative called Pasha Centres (Digital Villages) that will diffuse ICT know-how to the rural and marginalized areas to address regional disparities. Entrepreneurs, who run Digital Villages, are awarded loans by the government.

Other initiatives such as Wezesha provide a financial incentive towards purchasing a laptop for registered university students. The laptop initiative is funded by the World Bank and implemented by the Kenya ICT Board under the Kenya Transparency and Communications Infrastructure Project (KTCIP), as part of a component to implement the Computers for the Communities Initiative. This laptop initiative is known as ‘Wezesha’; a Swahili word that means ‘to enable’. Additionally, the Government has proposed to set up a technology park at Konza, which is part of the Vision 2030 Flagship Programmes. The Tech city will host BPO Park, Science Park, Convention centre, mega mall, hotels, international schools, and world-class hospitals, Championships Golf Course, Financial District, High Speed Mass Transportation and Integrated Infrastructure. The main objective of developing an ICT park is to serve as an enabler to wealth and job creation as well as being an avenue to provide the necessary environment to attract investment.
The park will also facilitate business activity within and outside the country, reinforce efficient linkages between the private and public sector, promote the acquisition and usage of ICT in the country and promote good ICT governance.

According to the International Telecommunication Union report on “Measuring Information Society” ranks Kenya at position 114/155 in ICT Development Index (IDI), a composite index combining 11 indicators into one benchmark measure that serves to monitor and compare developments in information and communication technology (ICT) across countries. Some of these indicators include ICT readiness, ICT use and ICT capacity as shown in figure 2 below.

Figure 2: ICT Development Index

It is evident that to make Kenya a regional hub, its ranking across various ICT indices must be made better. To do this, all the stakeholders must join together and through the different initiatives discussed earlier and platforms such as iHub-a network and meeting place that enables Kenya’s innovators to bring their ideas to life-must be continuously involved in realization of ICT development through entrepreneurial innovations. This study therefore profiles iHub- Nairobi’s Innovation Hub, which is a tech community facility of young entrepreneurs, web and mobile phone programmers, designers and researchers.
Mixed methods were used to understand how the iHub model works: IDIs (In-Depth Interviews) with the community manager, focus group with iHub employees and available secondary information on the iHub website. The data collection took a period of one month, followed by one month of analyzing and reporting. All interviews took place within the iHub.
3.1 GENESIS OF THE HUB

iHub was started as part of the Ushahidi strategy in 2010. Erik Hersman, founder of iHub, and a group of young developers, volunteers and journalists who were passionate and energetic about technology assisted in developing the Ushahidi platform for the global community.

Due to limited space, the developers were forced to meet in and work from popular coffee houses in Nairobi. These meeting places had a couple of challenges. They had limited Wi-Fi connection and it was expensive for the members to work from there, as they had to buy something to either eat or drink first, as well as the many distractions from those high people-traffic areas.

It was then that, Erik Hersman, some of the advisors, and Jessica Colaço, the immediate-former iHub Manager; came together to form the iHub. At the time, it was just a bare concrete space with a few chairs, a table, and a router flickering in the background. The original team sat and thought of how they would be able to accommodate thousands of techies in Nairobi in that space and breathe life into the space and the community.
“We were looking for techies who were doers and not talkers. The techies therefore had to undergo a vetting process and fit within a certain structure,” says Jessica Colaco. “We then decided to come up with a membership structure to accommodate the physical and virtual techies of Nairobi and Kenya,” she continues.

Erik started jotting the structure that the iHub would adopt on a piece of paper. White members – these are the ‘virtual’, green members – those who can physically access the space, red members - physical members with a semi-permanent desk space, and black members - the iHub management team that assists in daily management and operations. All of these members came together to make the iHub space a reality. It was only later that the founding team realized that they had picked the colors of the Kenyan flag for the membership structure.

The piece of paper, which had the details of the membership structure, was then used to develop wireframes and mockups to be used to build the iHub membership system. These were further refined to a functional website by a volunteer web team, led by Joshua Musau, the previous iHub webmaster.

The iHub tech space is the first of its kind to operate in Africa. It allows technologies to progress from idea stage to a real product. The key to iHub’s effectiveness is open innovation – the process of combining internal and external ideas, as well as internal and external paths to market and to advance the development of new technologies.

“iHub is a network and meeting place that enables Kenya’s innovators to bring their ideas to life” says Tosh the, former iHub community manager.
3.2 THE SPACE DESIGN

Located at Bishop Magua Centre, fourth floor, the design of the space was key to give the hub a feeling of openness, fun and community flair. Fady Rostom from Ark Kenya and Kwame Nyongo were the lead designers from the community. They spent a lot of time listening to the ideas and thoughts of the advisory team before they started drawing, and it shows in what was built and currently running.

“We needed a place that was open, and could be flexibly turned from community commons to events space. We wanted a subsection of the space to be rentable desks, for pre-incubation and co-working activities” says Jessica Colaco, the founding manager of iHub.

The coffee shop forms the core for networking within the community and the secure server room is the heartbeat of the network and Internet.

“The iHub had to have the feel of being a high-tech community space in the world, with a Kenyan flavor”, says Joshua Musau, iHub designer.

The good design at iHub has positively impacted on the brand and users experience, drawing more members and guests in the space.
The iHub space has high speed Internet connectivity that is often a core part in accelerating start-ups communications and sharing digital information. The Wananchi brand Zuku has provided iHub with free, high-speed Internet, which helps accelerate collaboration among members. Safaricom has provided backup Internet for added redundancy when traffic spikes or when Internet outages occur in the main undersea cable hence achieving a continuous connectivity and information flow in digital formats.

3.3 SPACE STRUCTURE

The space has 8 employees- design manager, web developer, content manager, community manager, Hub manager, Security manager, Administrator and Operational Manager.

3.3.1 Board of Advisors

The iHub Advisory Board is made up of 5 people from the Nairobi tech community, and represent the community when important, or difficult, decisions have to be made. These advisors also act as mentors; with their experience and diverse skills they are able to strategically provide support that is necessary to the entrepreneurs in each stage of their business. The iHub advisory board includes:

- Riyaz Bachani, Wananchi executive, now in charge of Wazi Wi-Fi
- Josiah Mugambi, Co-Founder of Skunk works, works at Nokia Siemens
- Rebecca Wanjiku, Tech reporter and founder of Fireside Communications
- Conrad Akunga, Blogger, co-founder of Mzalendo and highly respected software architect
- Erik Hersman, Tech blogger and co-Founder of Ushahidi

3.4 GUIDING PRINCIPLES

The essence of iHub is epitomized in 4 key principles:

**Innovation**: Innovation is a change in the thought process for doing something or new stuff that is made useful. The goal of innovation is positive change, to make someone or something better. For iHub to succeed it has to become self-sustaining knowledge ecosystem. A place which will continuously appeal to great minds and produce innovative applications, systems and ideas.
The doers are given priority over the talkers as innovative people like to be around other bright, innovative people. It is a meritocracy, where those who create new and cool things are given more and better access.

**Community:** A community is a group of people interacting with each other. iHub is a place for all stakeholders to meet, brainstorm, share ideas and collaborate through meet-ups, workshops, focus groups, hackathons and competitions, bar camps, mobile boot camps and short-talks from guest speakers. iHub is thus a social networking nexus point where the tech community gets to know each other. The great synergy within the community encourages innovation at a communal level.

**Entrepreneurship:** Entrepreneurship is the act of being an entrepreneur, which is a French word meaning “one who undertakes innovations, finance and business acumen in an effort to transform innovations into economic goods”. This may result in new organizations or may be part of revitalizing mature organizations in response to a perceived opportunity. iHub’s initial success can be fueled by relying primarily on local talent, the importance of attracting, developing, and retaining a vibrant base of world-class talent increases as clusters mature and grow in complexity.

**Research:** Research is a systematic process towards solving a problem. Innovators tend to solve problems and research is a core requisite of the innovation process. iHub is a place for problem solving and analytical thinking, to test the feasibility of a product or project based on the research findings from the systematic process the innovator utilizes. iHub has started a research arm - iHub Research, to facilitate local ICT research capacity on technology innovation within the community. iHub Research is working with entrepreneurs to help them validate their ideas through continuous market research. Some of the startups they have worked with, include: Weza Tele Ltd and Zege Technologies.
3.5 MEMBERSHIP TIER SYSTEM

The structure is made up of three membership tiers: There are three levels of membership:

3.5.1 White Membership

This is the first level of membership that all iHub members must go through. Membership is open and free to work from the physical space. It is also the membership that the Green membership will default to after the arranged period expires. Currently there are over 10,000 white members. The benefits white members get include:

- Weekly newsletter;
- Access to post on jobs board;
- Entry into iHub space one day a week;
- Invitation to events at the iHub.

3.5.2 Green Membership

Green membership will be offered to white members who apply for it. The prerequisite is that the member is involved in a project that has the following needs:

- The applicant needs a physical location to work out of
- The applicant needs to source for other developers and designers to join the project
- The project will grow, create a minimal viable product or service and is ready for help to scale

An applicant will make an appearance at the iHub Space, and be interviewed by the iHub Manager. A further interview would be arranged after a successful initial interview.

After the specified period of Green membership (6 months) a Green member will automatically revert back to White Membership. However, the Green member may make a request for extension from the iHub Advisory Board facilitated by the iHub manager. The benefits from this membership include:

- All of the White membership benefits;
- Full access to the iHub Space;
- Publicly accessible web profile on the iHub website;
- Invitation to Pivot East Competition;
- Use any of iHub Initiative’s services for non-commercial work;
- Access to iHub corporate partner events at the iHub.
3.5.3 Red Membership

A Green member who has completed the 6-month period and has a minimum viable product or service will be in line for Red membership. However Red Membership requires one to pay Kshs.15,000 for a desk, and a locker. The membership is for 12 months. Currently there are 9 red members. The benefits from this membership include:

- All of the Green Membership benefits;
- Office service such photocopy and print at subsidized prices;
- Courier service with iHub Space as the Physical location;
- 30% cost for use of the mLab Board room;
- Access to the iHub’s Corporate partners and propose collaborative projects;
- Become iHub Consulting’s Implementation Partners;
- Receive advice on market research from iHub Research;
- Be part of the product development and testing at iHub UXLab;
- Get server space for mobile and web application hosting from iHub Cluster.

3.6 OPEN INNOVATION

iHub has embraced the concept of open innovation by nurturing an enabling environment and a collaborative space where a community of technology entrepreneurs can grow and share ideas. Through iHub, the technology community, industry, academia, investors and venture capitalists can meet, share ideas and collaborate. They in turn transform their ideas into actions: they build a vivid vision, a team and a business plan, with help from an in-house business unit.
An open innovation culture creates a discovery paradigm of new knowledge and dissemination of work that can be used to develop new innovations. The dynamic synergy created by these interactions is what fuels the community as a whole. Culture creates active collaboration and continuous innovation in a hub. Sharing knowledge is vital; an isolated community of people in a hub, looked after by a privileged few, will not survive for long. iHub has also created a culture of open innovation through knowledge-sharing, networking and hacking ideas in hackthon events including show and tell events that allows the tech community to exhibit their products to the whole community.

Mlab is also a clear example that shows that iHub promotes open innovation through mentorship, training and supporting mobile applications developed by young entrepreneurs, majority of whom have graduated from iHub to Mlab. These include startups such as: Zege, M-Farm, Uhasibu and Mprep.

3.6.1. iHub and AfriLabs

AfriLabs is a network organization that supports innovation hubs in Africa where each hub serves as a nexus for innovators, entrepreneurs and investors. The main goal of AfriLabs is to support the growth of the hubs, their respective members and surrounding communities. iHub is part of AfriLabs and it benefits in various ways such as mentoring, networking opportunities and other resources for high-potential entrepreneurs. This is achieved because AfriLabs exists to support the growth of communities around African technology hubs and to encourage expansion of the network by providing tools and resources for new and emerging labs in the coming months.
At an individual level, iHub members strive to improve their skills and knowledge about relevant issues or current trends by engaging with the resources available through the open innovation space, such as educative events, fireside chats with CEOs and thought leaders in the tech industry and workshops within the community. Some of the recent events include:

- **ThoughtWorks Talks TDD (Test-Drive Development)**: the aim of the event was to provide basic knowledge for solving problems related to software design using test-driven development.

- **Mobile analytics—a Radar for your app event**: Mobile Analytics gives us the opportunity to discover more about how our mobile apps are being used and whether the app is behaving well. Mobile Analytics can provide early feedback from the field, from real users using your app, so you can improve the app and increase your development velocity while minimizing the effects of various problems with your current version of the app.

- **Business Conversation on ICT**: The Business Conversation is a monthly forum created by the Business Lounge where young entrepreneurs and business people can interact with various personalities who have had a track record of exceptional leadership, management and entrepreneurial experiences.

- **The Nairobi Research Buzz**: This event is aimed at sharing research on new technologies and communication. As such, iHub Research will be holding seminar series exploring the technological, economic, political and social implications of new technologies and communications in Kenya, East Africa and the world.

- **Wireless Wednesday event by Mlab**: This event entailed improving quality and uptake of agricultural mobile innovations. The event had mobile apps developers, entrepreneurs, farmers, NGOs, financial advisors, media, government representatives, and other stakeholders. The event, sponsored by USAID through DAI.
There are other numerous events that have been held at iHub and will continue to be held in future. Each of these events has different objectives to the members and focus to promote ICT culture. Among the benefits include potential to build capacity and expertise through iHub Consulting. iHub Consulting pools together top talent from the community to help organizations develop and implement technology strategies and solutions for long-term growth. More of these events are available here http://ihub.co.ke/pages/events.php.

3.8 ENGAGEMENT WITH THE COMMUNITY

iHub Members drive the space together on common interests. The community is at the centre of every decision. The community drives the space through their knowledge and social collaborations that are valuable to the success of the space. A key point is that the iHub community strengthens knowledge transfer, build capacity/expertise through iHub consulting, and foster innovations in areas that matter most to the open space. In order to sustain and attract new members, communities must provide ongoing value.
3.9 PARTNERSHIPS

In any business model, having partners is an ingredient to success. Most important is building effective partnerships and structures of collaboration within the community. However, bringing partners to the table is only the first step in the collaborative process. Equally important is how the partnership will be structured once it is formed. In partnerships among organizations and institutions, lack of formal structure undermines mutual accountability and limits the potential for meaningful cooperation. Without enforceable rules of interaction, organizational partnerships often take the form of loose networks rather than functional collaborations.

iHub has worked hard to create these partnerships with individuals and corporates. Before the first brush of paint was dry in the iHub, iHub had started talking to big technology corporate. The iHub advisory team also happened to know a number of them personally, which sped up the discussions and interactions considerably. The advisory team did not want to just have corporate partners who were sponsors, but add value to the space that would help the tech community. Some of the corporate and partners of the iHub include diverse organizations such as: intel, Samsung, Nokia, Omidyar Network, Ark Africa, Ushahidi, Nation Media, Google, Zuku and Hivos.

iHub looks for partners who will add value by do something related to technology and offer funding so that projects are implemented with ease. iHub also values those partners that will have an impact to the community. iHub strengthen its relationships with their partners through various means such as office hours set ups; sending them cakes and having fire side chats from time to time.
3.10 THE FUNDERS

For the hubs to ensure future sustainable success, they are required to secure more funding and support since most of these Hubs are non-profitable. iHub receives considerable financial and non-financial support from different organizations to strengthen the Hub’s future. iHub’s funding has come from private foundations that support Ushahidi:

- Omidyar Network, a philanthropic investment firm dedicated to harnessing the power of markets to create opportunity for people to improve their lives.
- Hivos, a Dutch non-governmental organization that aims to contribute to a fair, free and sustainable world. In 2011, Hivos agreed to cover a good portion of the iHub’s running costs. The fixed costs were covered while the management team worked towards generating enough revenue to make the iHub sustainable on its own in future.

With this funding, Ushahidi established a physical Hub (iHub) in Kenya, the country where the idea of Ushahidi was born, with arrival of the undersea cable and the already buzzing tech scene in Kenya, the Hub is giving rise to a rich pool of talent and start-ups in the tech world. Recently Google also provided financial funding of USD 150,000 (Ksh. 12M) from Google to support the iHub community. This funding will help accelerate Hub’s mission in catalyzing technology innovations within the Hub community by providing them with the infrastructure and skill sets to fuel their innovations to the next level. With this funding, Hub management has managed to kick start progress in:

- Expand infrastructure (network and server technology) to provide the tech community with a “sandbox” to host and test their applications;
- Set up a UX testing lab to provide training on design thinking and carry out UX research in the tech world;
- Setup the “Exchange Board Project” to support high-quality G+ hangouts and display the latest newsfeeds within the tech community;
- Set up an experimental super-computer cluster environment (“rackspace”) to host data intensive applications with require high performance computing.
Moreover, Google has also provided non-financial support through initiatives in the community like crowd mapping, trainings and office hours. These sessions have strengthened members’ collaboration and through them the iHub community has identified areas to work together and strengthen their networks through effective partnership.

3.11 THE SUSTAINABILITY STRATEGY

The iHub has different channels of generating revenue to remain sustainable and competitive through an effective action plan. When factoring in the things that should feature in a sustainability strategy, it is crucial to factor in all aspects of the business or operations and this is where sustainability management comes into effect. Ways in which the iHub generate its revenue include:

- Red Membership - desk rentals to individuals at USD 120 per month;
- Events - the community members can run free events, but corporate partners and other organizations pay a fee to run an event on at the iHub;
- Jobs Board - posting of jobs on the website at a monthly fee of Ksh.1, 000 per post;
- Corporate Membership - large organizations can contribute to the iHub’s operating costs, and in return they have greater access to the iHub community through their initiatives;
- iHub Research - this started in March 2011 as an experiment. Made up of a team of researchers who focus on tech research in Kenya and Africa. The team already sees that 50% of future income will be coming from this initiative. For more information about iHub Research, visit research.ihub.co.ke.
- iHub Consulting - pools together top talent from the community to help organizations develop and implement technology strategies and solutions for long term growth. iHub consulting leverage local skills to deliver tech innovation to organizations where it is needed to catalyze the movement of innovation to where it matters most.
- iHub UXLab initiative - this will involve in-depth user experience studies on clients product resulting in practical insights for improvements, thus a better product that meet the targeted users’ needs in the way they want them, resulting in true value.
- iHub Cluster - it aims to engage the community by bringing together the traditionally disparate academia and ICT communities by creating both push and pull demand for analytics while offering a sandbox that the developer and academic communities can work with.
3.12 CHALLENGES

Just like any other organization, iHub faces various challenges, which include:

- Running the space is at times difficult due to much interest from visitors—locally and internationally—who pay frequent visits to understand how the space. This makes planning difficult due to perception and media due to too many expectations. This makes impact assessment harder. Remaining small while growing big.
- Funding to undertake various projects and host events is inadequate.
- Lack of government support in driving the iHub agenda. The government has a role to play to ensure ICT hubs such as iHub receive the full support in terms of logistics, finances and any other resources the hub may require.

In an article published by The East African (http://www.theeastafrican.co.ke/news/iHubs-turning-youth-into-entrepreneurs/-/2558/1434080/-/view/printVersion/-/jc2ncwz/-/index.html) Mr. Hersman faults the country’s investment culture which undervalues technology startups and leans towards traditional investment vehicles such as land, property and equity.

“Kenyan investors are normally cagey about investing in technological ventures especially startups because they seem high risk. It is true that it’s high risk but the returns are equally great and that is why we have a lot of FDI in the tech sector, but local investors are losing out,” he says.

3.13 START-UPS/ENTREPRENEURS THAT HAVE EMERGED FROM THE IHUB MODEL

Several innovations have arisen out of the iHub model of collaboration.

- **M-Farm**: is a mobile Information Resource Center that focuses on delivering real time information to the farmers on current market prices, weather alerts and agro-supplies within the location, bringing farmers together in a collaborative forum.

- **Elimu**: Designed to make not only an educational, but also a social impact, to educate a generation of conscientious citizens who will be armed and ready to take their places in the economies of the 21st century; a generation of problem solvers, astute voters and reliable leaders for Kenya.
• **Uhasibu**: is the award-winning online (cloud-based) accounting system for SMEs, build specifically for the legislation and work-flow present in Kenya today. All features that for the first time enables SMEs to move to fully digital accounting. Increasing efficiency by removing overhead due to manual paper processing.

• **Kopo Kopo**: The name Kopo Kopo comes from kobboh kobboh, the Krio word for money in Sierra Leone where the pilot project was done. Kopo Kopo is a world-class platform to enable small and medium businesses to accept mobile payments and build relationships with their customers.

• **NikoHapa**: This is a Kenya phone-based customer-loyalty card that allows users to “check-in” at specified food joints by selecting from a list of nearby joints displayed by the application. It uses a network location provided by the application or GPS hardware installed on the phone to determine the location of nearby eateries.

• **Other businesses** include Weza Tele, M-Prep, Pesapal, Capefield, Sprint Interactive, Blue digital, Four99 stores, Bti Millaman, Akirachix, Afrinnovator and Elantele media Ltd among others. However, some of them have graduated out of the hub into their own offices and incubation centres such as Weza tele, Kopo Kopo, Mfarm, Mprep, Pesapal, Uhasibu, Sprint Interactive, Elimu and Afrinnovator.
In the Kenyan context, there is solid evidence that ICT sector growth (predominantly due to mobiles) is making an important direct contribution to economic growth and development. Thanks to mobile money, Kenya has seen a particularly strong take-up and economic role for ICTs, but it is fairly typical in terms of mobile investment, revenues, subscriber base, employment, etc. which has grown exponentially over the last few years contributing a huge amount to the Kenya’s GDP.

The government has been keen on enacting policies, infrastructures and regulatory frameworks to enhance ICTs growth. This has led to an enabling environment that has led to the adoption of the ICT Master Plan, flagship programs such the technology park at Konza City, establishment of initiatives such as the digital villages and ICT institutions such as the Kenya ICT Board which are all aligned to Vision 2030. This clearly demonstrates the Kenyan government commitment to ICT growth and development.

It is platform such as iHub - an inspiring project, for innovators in Nairobi to share and pre-incubate new ideas for ICT start-ups that will act as catalyst to place Kenya as a region hub as envisaged in Vision 2030. iHub was formed from the conviction that if you put enough smart people in a room, good things will happen; iHub now has more than 10,000 members, engaged in work from brainstorming ideas to finding funding.

The operators of the iHub space have also worked to engage their members to share with each other through community initiatives and meet-ups, online tools such as whiteboard and the interactive website. This way, they will promote the exchange of ideas, harvest and repurpose valuable knowledge in the spirit of open innovation. Hence need to capture metrics to measure community growth and effectiveness in the space.

Despite the difficulties the founders met trying to build Nairobi’s Silicon Valley and the lack of seed capital to build a broad base for testing out (relatively small-scale) ideas due to the high costs, and complex processes, to set up a business in Kenya, iHub has made some great strides in technology revolution in Kenya.

It can therefore be concluded that Information and Communication Technology (ICT) innovations are delivering home-grown solutions in Africa, transforming businesses, and driving entrepreneurship and economic growth. Kenya is not an exception and ICT Hubs such as iHub that are strategically well-planned, infrastructure enabled and effectively managed can significantly impact the success of supporting and growing the young ideas and businesses to reality by playing a big role in harnessing growth and market access in positioning Kenya as a leader in ICT.
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