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Building ICT Entrepreneurship Ecosystems in Resource-Scarce Contexts: Learnings from Kenya’s “Silicon Savannah”

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Introduction

“Kenya’s technology push leaves investors cold” reads an oft-quoted article from 2014 (Reuters 2014). A lack of talent, a scarcity of seed capital, and insufficient profit potential in a market characterized by low-income consumers have, according to the author, driven disappointed investors to look for opportunities elsewhere. The current chapter shows that establishing ICT ecosystems is indeed difficult in resource-scarce countries. These ecosystems tend not only to be in a nascent stage, they are also missing essential ingredients and resources—financial resources, specialized organizations, universities, and relevant human capital—that help enable high-growth entrepreneurship and that have to be put in place “from scratch.” The referred to article then closes with an investor’s dubious promise to return to Kenya “When real money is ready to be made” (Reuters 2014). But how do we overcome the challenges to reach that phase?

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The central goal of the chapter is to shed light on the evolution of Kenya's ICT ecosystem and ask "What are the barriers to and enablers of growing an ICT ecosystem in a resource-scarce context?" Using Isenberg's framework of entrepreneurship ecosystems (2011), my research, conducted in Kenya in the fall of 2013, highlights a set of barriers and enabling processes necessary for the maturation of Kenya's ICT ecosystem. Based on these, I propose a model that explains ICT ecosystem emergence in resource-scarce contexts. The chapter ends with specific recommendations that tackle the current barriers in an effort to move ecosystems beyond their nascent phase. Research into such an endeavor can deduce pivotal policy prescriptions that account for context and stage. The chapter will therefore conclude with suggestions for further research.

Theoretical Background

Over the last decades, the entrepreneurship domain has seen a shift from investigating the entrepreneur and his or her characteristics and motivations toward focusing on the context in which entrepreneurship takes place (Thornton 1999). In this spirit, I understand technology entrepreneurship as the creation of new ICT-enabled organizations, which occurs in a context-dependent social and economic process (Beckman et al. (2012); Gartner 1988; Low and Abrahamson 1997; Thornton 1999). In resource-scarce contexts, technology entrepreneurs face a set of contextual challenges, such as low-income consumers, disproportionately higher risk of entrepreneurial failure, and low enforcement of formal institutions and contracts (Webb et al. 2009). In addition, technology entrepreneurs in Kenya face particular challenges that arise when starting a venture in the formative years of a new industry, such as a lack of overall legitimacy for the industry, the need to carve out new market structures, and the need to recruit untrained employees (Aldrich and Fiol 1994). The venturing processes, resource requirements, and strategies of entrepreneurial ventures arguably take distinct forms in order to respond to such aggravated challenges (Kiggundu 2002; Thornton 1999). However, many of the existing insights into technology entrepreneurship arise from resource-rich contexts, such as the USA and

Europe and thus have only limited applicability for contexts such as that of Kenya. Context-specific research in resource-scarce environments is needed rather than one-size-fits-all policy prescriptions that emanate from the Global North (Zoogah and Nkomo 2013). In this chapter, I account for the contextual particularities of Kenya in order to develop adequate and relevant knowledge for Kenya. Moreover, I seek to open up a conversation for further research in resource-scarce contexts that see the model I develop as a point of departure.

Today's focus on ecosystems in the entrepreneurship domain has emerged recently but rapidly (Autio et al., 2014; Feld 2012; Isenberg 2010, 2011; Kantis and Federico 2012; Napier and Hansen 2011; Mason and Brown 2014; Zacharakis et al. 2003). The entrepreneurship ecosystem perspective, as understood by Isenberg (2010, 2011) and Mason and Brown (2014), provides a framework to understand the ability of regional contexts to encourage and support the creation of new ventures. To achieve this, the framework builds heavily on the insights of geographic economics, in particular cluster theory and regional innovation systems (Mason and Brown 2014). Within the stream of cluster theory, geographical economists have sought to explain the reasons for the geographic clustering of economic activity, the inner dynamics of clusters, and the economic benefits that result. Regional innovation systems literature offers abundant insights into the relational elements within regions that govern innovation and entrepreneurship. Despite the extant research, the entrepreneurship ecosystem framework offers a unique perspective that is distinct from cluster and regional innovation systems theory in three ways.

First, its specific goal is the creation of growth-oriented entrepreneurship (Miller 2005). As such it focuses on nurturing aspirational entrepreneurs that seek to build large and rapidly expanding firms rather than on, for example, the founding of small businesses that are operated in order to provide income for the owner. The presence of such high-growth type of firms has been shown to be vital for job creation (Anyadike-Danes et al. 2009) and building regional innovation systems (Mason et al. 2009; Du et al. 2013), which is why their promotion has been declared central to policymakers across the Organisation for Economic Co-operation and Development (OECD 2010, 2013).

Second, the framework provides a list of the main conditions that are required to successfully generate and nurture such ambitious

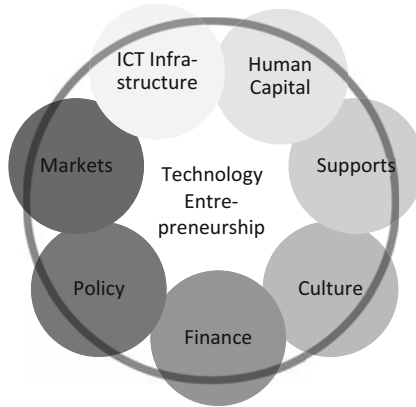


Fig. 8.1 Dimensions of an ICT entrepreneurship ecosystem (Adapted from Isenberg 2011)

entrepreneurship. Isenberg’s widely recognized entrepreneurship ecosystem framework (2011) proposed six main conditions—conducive sociocultural norms around entrepreneurship, availability of entrepreneurial support systems, availability of qualified human capital, presence of appropriate financing sources, relevant entrepreneurship policy, and venture-friendly markets for new products. Because of the explicit focus of this chapter on technology entrepreneurship in a resource-scarce context, a seventh condition—ICT infrastructure—was added as a further condition. See Fig. 8.1.¹

Third, the framework provides important insights for the design of entrepreneurship policy. On the one hand, regional factors are considered central in determining an ecosystem’s barriers to and enablers of entrepreneurship. Therefore, generic strategies to foster ecosystem growth add little value. This is especially relevant in an ICT sector context, where the “gold standard” of Silicon Valley has in the past inspired worldwide generic policy action such as engineering technology clusters, setting up technology incubators, and supporting venture capital industries (Isenberg 2010, 2011). Arguably, these strategies can indeed

¹ See Isenberg (2011) for a discussion of these conditions and their subcategories. For a more comprehensive literature review on the entrepreneurship ecosystem framework and its role in fostering entrepreneurship, see Mason and Brown (2014).

add value, but their worth has to be reconsidered in light of each ecosystem's individual needs and opportunities. Over the last decade, multiple governments have essentially wasted millions of US dollars on generic technology-cluster policy efforts (Economist 2007; Isenberg 2010). On the other hand, the framework views ecosystems as interrelated organisms in which corrective actions to remove a barrier in one dimension have side effects on the entire ecosystem. For example, although providing grant money to entrepreneurs to address funding gaps may be effective from a financing perspective, it can—if managed too loosely—undo the toughening effect on human capital that the equity capital market usually exerts and retard the formation of a venture capital industry and its strategic resources. In the past, many governments prioritized one or two dimensions over others, because they deemed these to be especially important to entrepreneurial success. However, effective approaches to fostering entrepreneurship in a region need a comprehensive and holistic approach that takes into account all dimensions of the framework (Isenberg 2010, 2011). Ács et al. (2014) illustrated this point by showing that when one ecosystem element is far less developed than others, it forms a bottleneck that limits the growth of the entire system and hinders the creation of new ventures. Assuming policymakers as the main designers of ecosystem-fostering strategies, Isenberg (2011) therefore argued for the need for intensive dialogue with ecosystem stakeholders from all ecosystem dimensions. In this way, the policymaker can gain a holistic picture of the ecosystem's unique challenges and opportunities and “co-design” interventions with knowledgeable practitioners. These interventions will then be executed in iterative circles of experimentation and feedback to enable the policymaker to find out what works in his or her context.

For this chapter's inquiry into the barriers faced by an early ecosystem in a resource-scarce country and the resulting enablers, previous theorizing provides little insight. First of all, much previous work on regional innovation systems, clusters, and entrepreneurship ecosystems neglects the time dimension of an ecosystem's development. Mason and Brown (2014) found that ecosystems “are discussed as if they emerged fully formed.... There is little understanding of how successful entrepreneurial ecosystems come into being and evolve.” This is unfortunate, because Feldman and

Braunerhjelm (2004) showed that there is an evolutionary logic to cluster formation and that therefore a young ecosystem faces different challenges than a more mature one. Thorny chicken-and-egg questions have been ignored. For example, if the availability of local financing is a key attribute, did it predate the emergence of businesses in which to invest, or did the businesses predate the financing, in which case how were the initial businesses financed (Mason and Brown 2014)? Second, insights into why and how such systems get started provide little constructive insights in resource-scarce contexts. Cluster theory literature has argued that clusters emerge where certain preconditions make for “fertile soil.” Examples of such preconditions are the presence of advanced knowledge institutions that both generate knowledge advancements and supply the skilled scientists, engineers, and professionals that are considered to be at the source of entrepreneurial endeavors (Isenberg 2011; Porter 1998; Mason and Brown 2014). Other scholars point to proximity to established industries and government spending. In America, for example, the role of the defense industry in the early growth of Route 128 and Silicon Valley is well documented (Adams 2011; Leslie 2000; Saxenian 1994). Further, the presence of successful entrepreneurs and entrepreneurial firms in creating spin-off effects that benefit the ecosystem across its dimensions is stressed in multiple studies (Mason and Brown 2014). Arguably such “fertile soil” is the foundation on which early industry emergence processes, such as the emergence of activity networks and the establishment of a technological base are built (Gustafsson et al. 2015). How is it, then, that we sometimes see technology ecosystems growing in resource-scarce contexts that generally lack such soil? What substitute institutions and processes can ecosystems in such contexts draw on to emerge anyway? This chapter’s findings concerning the enabling processes that have been at play in the Kenyan ecosystem give insight into these questions by pointing at, for example, the pivotal role played by the entrepreneurial support system. Furthermore, Isenberg’s recommendation (2010, 2011) to work holistically and address multiple dimensions at once is only of limited practicability. In resource-scarce contexts, there is a need to establish most of the conditions in the ecosystem perspective from scratch, and the question of prioritization arises. Given the unique contextual features of resource-scarce environments, which are the components that have

to be established first to kick-start an entrepreneurial ecosystem? And in what order should the other components follow so that high-growth entrepreneurship can be realized? The model developed here of entrepreneurial ecosystem emergence provides insight into these two questions and shows that despite commonly assumed antecedents to entrepreneurial ecosystem emergence, new ecosystems can successfully emerge in contexts where abundant venture capital and highly specialized resources are not yet in place.

Empirical Context

Over the last decade, Kenya's ICT infrastructure has seen significant advancements. In 2012, the connection of LION2, the fourth under-sea cable, catapulted Kenya's bandwidth per user to a continent-leading 24000 mbps (ITU 2013). The country's Internet penetration rate of 43 % in 2014 was very strong compared with that of its East African neighbors (Data.un.org 2016), and the mobile phone and mobile money penetration rate of 83 % and 59 %, respectively, were nothing short of impressive (Communication Commission of Kenya 2015). A lively technology scene has grown up around the technology hubs, accelerators, and entrepreneurship competitions that have settled near Nairobi's Bishop Magua Center and along Ngong Road. Together, these developments have gained significant global media attention as an emerging space that was enthusiastically dubbed the "Silicon Savannah" (Economist 2012; Uhl 2012). In 2015, several innovative and expanding ICT ventures inhabited the ecosystem, such as Sendy, which uses mobile technology to let local motorbike taxis offer courier services, and BitPesa, which disrupts the international remittances market by combining Bitcoin with mobile money infrastructure.² Finally, important signals of approaching ecosystem maturation are the million-dollar exit of the mobile commerce firm Weza Tele (Disrupt-africa.com 2015) and the latest funding round for solar company M-Kopa, which raised over USD19 million in equity capital (pv-magazine.com 2015).

² See sendyit.com and bitpesa.co.

Research Method

My research followed an inductive theory building approach, using data on multiple case studies and additional semi-structured interviews. Such qualitative research methods were applied because they are helpful in understanding the “why and how” of a phenomenon (Yin 1994) and are appropriate when little is known about the phenomenon and current perspectives seem inadequate in the given empirical context (Eisenhardt 1989). In a four-month field visit to Nairobi in 2013, ten detailed case studies of local technology entrepreneurship endeavors were created. These characterized the founders, the venturing process, the underlying business model, and, importantly, the problems and enablers faced. To increase the generalizability of the findings, intercase variation was maximized (Eisenhardt 1989) along the dimensions of founder nationality, stage of the venturing process, and sector of focus of the enterprise. To verify and substantiate emerging themes, 20 additional interviews with a diverse set of ecosystem stakeholders were held, including venture capitalists, managers of local incubators and seed funds, university professors, and managers of nongovernmental organizations (NGOs). In line with Eisenhardt (1989), the research process was characterized by flexible, opportunistic data collection in which the semi-structured interview guidelines were continuously refined (Charmaz 2014; Glaser 1992). In addition, the research benefited from ethnographical insights gained through working on-site in a Kenyan co-working space and taking part in numerous events, competitions, and informal activities with technology entrepreneurs. The interviews were recorded, coded, and analyzed for the relevant barriers to and enablers of Kenya’s nascent ICT ecosystem. Cyclical coding processes were applied (Glaser 1992) to derive the main barriers and enablers, grouping them into the framework and assessing their interrelations and relative importance. The model of nascent ecosystem emergence was then developed in a process of abductive theorizing (Tavory and Timmermans 2014) as an iterative process between the empirical materials and the existing literature on how new industries emerge and ecosystems evolve.

The research took a holistic perspective on the barriers and enablers that were encountered instead of providing an in-depth discussion of any one ecosystem dimension in particular. This is helpful in understanding how ecosystems

function as a whole. In respecting the limitations of conducting one-person research on an entire ecosystem, I do not claim to have provided an exhaustive view of all the factors, and I encourage the reader to critically assess my findings and to use them as a starting point for debate and further analysis.

Findings: Barriers and Enablers in Kenya's Early ICT Ecosystem

The barriers to and enablers of entrepreneurship in Kenya are summarized in Fig. 8.2, and discussed in the remainder of the section below.

Conducive Cultural Norms around Entrepreneurship

The cultural norm dimension includes societal attitudes toward various important aspects of entrepreneurship, such as tolerance for risk, innovation, and experimentation. The social status of entrepreneurs, attitudes toward wealth creation, and the visibility of entrepreneurial success stories are also important in this dimension. From the interviews, a general consensus emerged that the entrepreneurship career path has low prestige associated with it, especially among older generations. In the historical context of Kenya, first the colonial rule of the British and then the rule of Daniel arap Moi from 1978 to 2002 left very little opportunities and freedoms for individual business owners and entrepreneurs (Himbara 1994). There has therefore clearly been a lack of examples of successful high-growth entrepreneurs that could have shaped the perception and prestige of this career path. Most of the interviewed entrepreneurs had completed university-level degrees and indicated that professional careers were deemed more appropriate for such levels of education.

Two cultural characteristics were found to affect the interviewees' perception of and tolerance for risk. First, the local context seemed to be characterized by institutionalized low trust.³ Respondents mentioned a strong fear of being defrauded by business partners, because of little trust

³ See Welters (2012) for a literature review on high- and low-trust contexts and their impact on entrepreneurship.

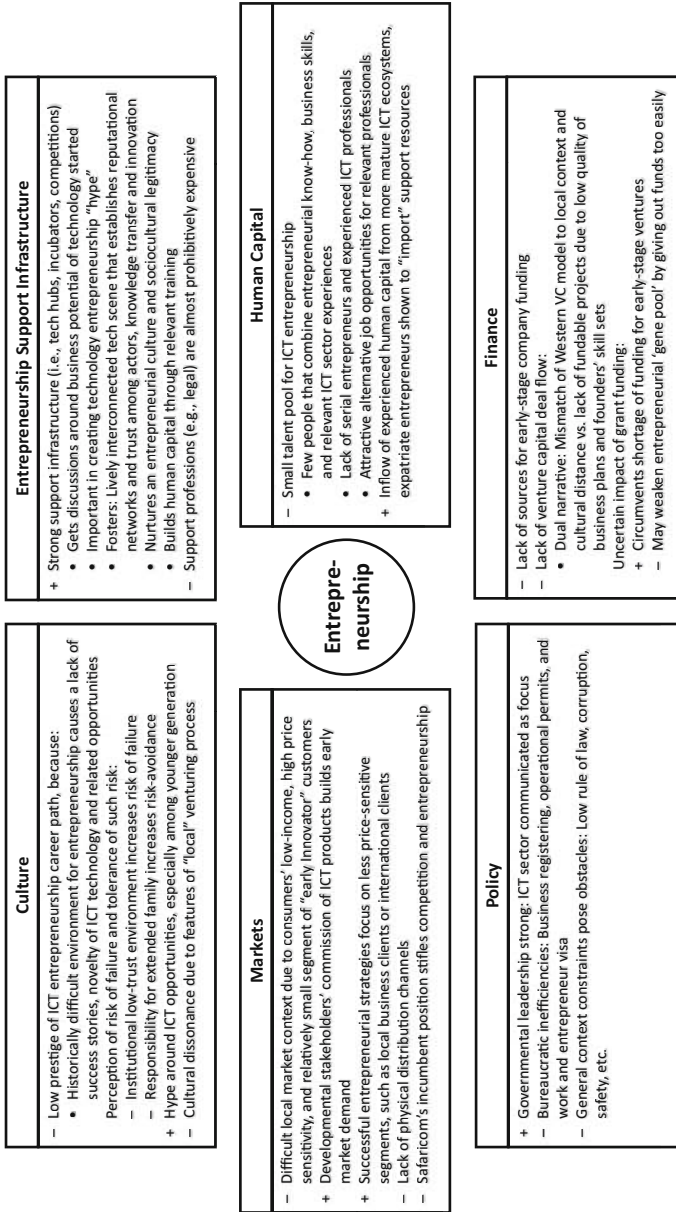


Fig. 8.2 Barriers to (-) and enablers of (+) technology entrepreneurship in Kenya's early ICT ecosystem

in other people's integrity, in the enforcement of contracts, and in weak national legal institutions. This mistrust was especially evident in interactions with a strong imbalance in power such as with large corporations or high-ranking officials. The institutionalized low-trust environment seemed to help discourage the decision to start up a venture. Second, the cultural norm of having to provide for extended family members in relation to one's ambition of becoming an entrepreneur was important. Respondents indicated that family members in the local context were often expected to generate support in the form of financing, jobs, and connections for a wide array of other family members. This need to provide a stable flow of resources increases the appeal of corporate job positions and decreases the entrepreneur's tolerance for risk and ability to forgo profits in early venturing phases.

The Kenyan ecosystem is a melting pot of numerous different nationalities. From the interviews, two particularities of the local venturing processes emerged as causing a dissonance between local and international stakeholders—first, a “lean mentality” among local entrepreneurs, whose limited ability or willingness to forgo revenues and profits in early venturing phases has led to limited attention to market research and business model validation; and second, a “hyperdiversification of efforts,” where local entrepreneurs engaged in multiple entrepreneurial endeavors at the same time or were distracted by other jobs. Multiple interview excerpts showed that international respondents have interpreted these practices as a lack of professionalism or a sign of insufficient entrepreneurial knowledge.

Availability of Entrepreneurial Support Systems

The availability and affordability of professional services related to entrepreneurship (e.g., legal, accounting, and technical services) as well as entrepreneurship support institutions, such as incubators and accelerators, are included in this dimension. The analysis found that Nairobi's multiple entrepreneurship-supporting institutions, such as open tech hubs, accelerators, and incubators, provided numerous enabling effects. Respondents named the possibility of meeting like-minded individuals who shared their enthusiasm for technology entrepreneurship to have

been key in nurturing and maintaining entrepreneurial ambitions, gaining sociocultural legitimacy, learning basic entrepreneurial and management skills, and building a community of like-minded people. The events, competitions, and workshops that are frequently held in support institutions were not only important brokers of entrepreneurial know-how and information on technical developments, but also fostered innovation processes through enabling exchange between various stakeholders and interest groups. In a context where power failures occur often and high-speed Internet connections and office space are costly, the shared workspaces available at these institutions significantly lowered the threshold for technology entrepreneurship. Further, the close contact and frequent interaction that have been achieved through these support institutions were indicated to have given rise to closely connected communities. The analysis showed that such networks improve accountability and incentives to stick to the proper conduct of business through reputational effects within the community. Respondents therefore indicated a lower perceived risk of entering into business relations with members of such a tech community compared with nonmembers of the community.

Availability of Qualified Human Capital

The human capital dimension includes the availability of relevant human capital—in particular, serial entrepreneurs—and of educational institutions with the ability to produce the relevant human capital. The skill sets needed to build a technology venture span management and entrepreneurial knowledge and leadership skills as well as technological know-how and relevant local ICT industry insights. The analysis showed that individuals who could contribute such skills and experiences were in short supply in Nairobi's ecosystem. The reason for this shortage lay in the overall youth of the ecosystem and the relative absence of knowledge-intensive industries or research institutions, where relevant skill sets and experiences could be acquired. In contrast to more mature ecosystems, where aspiring entrepreneurs have learned the traits of technology management and leadership in years of practice before starting their own venture, the entrepreneurs interviewed here often pursued entrepreneurship directly after finishing their education, because of a lack of alternative employment opportunities.

Although it is hard for educational institutions to stand in for practical experience in the area of management or software engineering, several interviewees indicated that too little emphasis has been placed on the provision of entrepreneurship knowledge and practical management skills to business and technology sciences students. Some entrepreneurs have indicated that universities in the context seem more focused on preparing students for professional careers and could do more in promoting entrepreneurship. Finally, the respondents stressed that individuals who do possess the skills required for technology entrepreneurship and have experience in resource-scarce technology sectors often have attractive corporate employment opportunities. Many of these candidates therefore seem to choose a relatively stable and prestigious corporate or government job.

A key enabler that emerged in the human capital dimension was the inflow of human capital from more mature ecosystems. Incoming expatriate entrepreneurs bring valuable skill sets and relevant experiences to the ICT ventures they have either founded or worked in. The case study research showed that some of these individuals seemed to be able to continue to draw on top-notch entrepreneurial support resources from their home ecosystems, such as networks, education, mentoring, and access to financing. Further, they provided foreign market knowledge that was valuable in targeting international consumers. Because these resources were used in establishing a Kenyan technology venture, they can be viewed as an example of the successful transfer of such resources. Internationals also seem to play leading roles in support institutions as, for example, managers of incubators, mentors at educational facilities, or venture capitalists. The research's findings suggested that such expatriates are often intrinsically motivated to create social impact instead of being attracted by profit potential.

Presence of Appropriate Financing Sources

The financing dimension includes the availability of several funding options for entrepreneurs, including angel investing networks, venture capital funds, zero- and seed-stage capital, public capital markets, and debt financing. The most common sources of capital at early venturing phases—including personal savings, family, friends, angel investors, and early-stage seed funds—were found to be scarce in the Kenyan ecosystem.

Although a local venture capital market had not yet formed, the Kenyan technology hype had attracted foreign investors looking for opportunities. However, the analysis showed a lack of deal-flow into local ventures at early and at later stages of the investment funnel. Venture capital stakeholders indicated that this was caused by a shortage of fundable projects, the low quality of underlying business plans, and the lack of entrepreneurial skills of the founders. Another narrative was that there seemed to be a mismatch between the Western venture capital model and the local market context of Kenya, where low-income consumers and local context constraints keep many potential businesses from satisfying venture capitalists' requirements for high-margin, high-growth potential. Additionally, a cultural distance between the local founders and the mostly Western investors—embodied in dissonant values, goals, work practices, and communication styles—seemed to impede the formation of trust-intensive partnership. A local venture capital sector had not yet formed at the time of the research, and Kenyan high-net-worth individuals reported being uninterested in investing in local technology firms.

In the Kenyan ecosystem, new ventures can also access financing from nonmarket sources, such as from the NGO sector, the government, and international development agencies. Despite the apparent merits of providing much-needed financing, such funding was shown also to have a detrimental effect on the wider ecosystem. Some interviewees criticized the fact that the rigor of selection in these situations was too low and led to the adverse outcome of weak companies getting funding. This was related partially to the lack of experience and know-how of public sector actors in identifying promising technology ventures. Further, respondents indicated that the funding had, in this early ecosystem development stage, outweighed the number of actually worthy candidates. The Tandaa grant initiative of the Kenyan ICT Authority, for example, has been criticized for not providing the additional mentoring resources that are needed at early venturing phases. Finally, several interviewees indicated that the availability of grant financing had created situations where financial resources were too easily available to local entrepreneurs, giving rise to the term “compepreneur,” meaning an entrepreneur who moves from one entrepreneurship competition to another to finance his or her livelihood through prize money and hence is too distracted to actually focus on building a venture.

Relevant Entrepreneurship Policy

The policy dimension includes the regulatory framework, existence of incentives for entrepreneurs (i.e., through tax benefits), and establishment of venture-friendly legislation (i.e., through bankruptcy and labor laws, contract enforcement, and secure property rights). From the interviews, a general consensus emerged that weak government administration processes, rule of law, and contract enforcement as well as corruption have been damaging the climate for entrepreneurship. Although this chapter cannot provide an exhaustive overview of all relevant policy factors, two recurring themes deserve attention. One is the attainment of visas, be it for foreign entrepreneurs coming to the country or for professionals seeking to work in new Kenyan ventures. Interviewees mentioned the process of obtaining work visas as being costly and time consuming. The alternative, receiving an investor visa, requires the applicant to have at least USD300,000 in a Kenyan bank account, which can be considered a high barrier. Further, processes and fees for business registration as well as obtaining business operational permits emerged as being problematic.

Venture-Friendly Markets for New Products

The market dimension reflects whether or not the market is accommodating for entrepreneurs, as determined, for example, by the presence of so-called early adopters who are able and willing to try new products. In a market context that is characterized by low income and a relatively small early-adopter customer segment, establishing monetization in a business-to-consumer model emerged as being very hard. Entrepreneurial strategies therefore seem somewhat limited when serving business clients or international consumers. A large part of local technology entrepreneurs in the study focused on ventures with social impact and monetization provided by government or international development stakeholders. Finally, a reoccurring theme among the entrepreneurs as well as the wider ecosystem stakeholders was the dominance of the telecommunications conglomerate Safaricom. Safaricom was suggested as not actively seeking interaction with the rest of the ecosystem, despite the potential win-win

situation that could be achieved through open innovation strategies (see also GSMA 2014). Respondents gave examples of such behaviors, such as not sharing Application Programming Interface interfaces to its M-PESA platform, not publishing data on market developments, and not actively seeking cooperation with local entrepreneurs (see also GSMA 2014).

Discussion

Key Barriers to and Enablers of Early ICT Ecosystems in Resource-Scarce Contexts

The research yielded a set of key barriers to technology entrepreneurship along the dimensions of human capital, culture, finance, and markets. For a nascent ecosystem in a resource-scarce country, building a human capital resource base able to successfully catalyze technology entrepreneurship may be one of the most difficult challenges. Many scholars have argued that the required skills, experiences, and mindsets for aspirational entrepreneurship are best learned through practice and cannot merely be learned in educational institutions. Given a lack of structures to gain such practical experience in young resource-scarce ecosystems, this begs the question of how those first embryonic structures can be put in place. In addition, the necessary educational reforms can be expected to take years before producing relevant human capital.

Promising candidates aspiring to be entrepreneurs may be further demotivated from pursuing their career path by the relatively low prestige and legitimacy associated with entrepreneurship, the pressure to provide for their family, and the relatively high risk of failure. Again, if successful entrepreneurial endeavors are needed to form positive social norms accordingly but top talent is currently demotivated to found new ventures, how should such norms form?

Entrepreneurial finance is another key barrier. A lack of seed capital can be expected in resource-scarce ecosystems, because of low general saving levels and the absence of ICT conglomerate managers and serial entrepreneurs who combine the expertise and wealth required for angel investments. In addition, the significant risks inherent in the context seem

to discourage seed investment funds. The example of Kenya shows that foreign investors may be unwilling to invest in local ventures even at later stages of the investment funnel. This was found to be caused by the investors' perception of a lack of local talent and the inability of local technology firms to meet the investors' profit and growth expectations. As a means of overcoming this shortage, alternative funding sources from donors and impact investors have been offered in the Kenyan ecosystem. In addition to the apparent positive effect of such financing, however, negative impacts on the wider ecosystem have emerged, evolving around detrimental effect on the "entrepreneurial gene pool," the donors' inability to provide non-financial resources, and shortcomings in candidate selection and grant administration. These findings are in line with Isenberg's argument (2011) that nonmarket-based financing often keeps bad companies from failing, which is detrimental because it does away with the Darwinist selection process otherwise set in motion by the equity finance market. According to Isenberg (2011), this process is a rigorous feedback mechanism that toughens up entrepreneurs and throws down a motivation to excel. Failure is often viewed by aspiring entrepreneurs as a valuable learning experience and as a necessary evil from a societal perspective because it redeploys the entrepreneurs and the involved capital to work on other, potentially more promising projects (Isenberg 2011). Finally, the resources that market-driven equity investors supply, such as managerial resources, access to networks, market expertise, and continuous mentoring (see Avnimelech et al. 2007), may be considered especially valuable in an early ecosystem, where entrepreneurs are comparably young and inexperienced.

The market environment for ICT-enabled products in resource-scarce countries that are still in the nascent years of their ICT industry provides a difficult context for technology entrepreneurs. The research in Kenya has shown that a consumer base characterized by low-income, price sensitivity, and a low willingness to try new products makes it hard to establish monetization through consumers. However, successful entrepreneurial strategies have emerged that focus on social problems and establish monetization through governmental or donor institutions or that serve less price-sensitive local business clients or international consumers.

The current study found several enabling processes that can help establish the conditions for technology entrepreneurship in resource-scarce

countries. Most importantly, I argue, the entrepreneurial support system in Nairobi has effectively substituted some of the resources and processes of ecosystem emergence that previous literature attributed to institutions that form “the necessary fertile breeding ground” (Mason and Brown 2014). Open technology hubs, relevant competitions, conferences, and accelerator programs were shown to be integral in generating global hype for the topic of technology in Kenya and play an essential role in building an active technology entrepreneurship scene. Further benefits that surfaced are the provision of entrepreneurial knowledge and training, creating and nurturing interest in technology entrepreneurship and conducive sociocultural norms, establishing trust among actors, and fostering innovation processes through connecting actors. Finally, technology hubs seem to play an important role in igniting conversations between various stakeholders about potential ICT business opportunities. Further, the inflow of foreign human capital was found important in building first ecosystem structures. In the short run, the inflow bridges the talent scarcity seen in nascent phases and helps get first entrepreneurial projects off the ground. Because numerous entrepreneurship scholars have argued for the need to develop entrepreneurial skills through actual experience and from experienced entrepreneurs rather than from textbooks, these first founders and support institution managers establish an important context for the development of local human capital. Finally, the commissioning of ICT products and services on behalf of institutional and NGO stakeholders has emerged as being pivotal in building initial market demand.

Development Trajectory of Tech Ecosystems in Resource-Scarce Contexts

Based on the insights from the Kenyan ecosystem presented here and using theoretical abduction, I propose a model of ICT ecosystem emergence in resource-scarce countries. Because of the early stage of my research on this topic, I encourage others to further refine, reframe, and change the model.

The model outlines four phases of development:

1. Establishment of a nationwide ICT infrastructure
2. Establishment of institutionally facilitated corporate entrepreneurship to help build embryonic structures of a market for ICT-enabled products and lay the groundwork for an entrepreneurship support infrastructure
3. Birth of first ecosystem structures with significant barriers to entrepreneurship
4. Formation of first ventures, creating spin-off effects that help build the conditions for further entrepreneurship

In the first phase, significant investments need to be mobilized to achieve a connection to the global grid of ICT infrastructure, and hence, set a minimum technological basis for ICT ecosystem emergence. Crucial concerns at this stage include the privatization of the telecommunications sector and collaboration with international development agencies to supplement the significant investments.

In the second phase, the market for telecommunication products needs to be developed by ensuring countrywide accessibility of telecommunications products and services. The consumer needs to be educated to be familiar with new transaction patterns and gain a minimum of ICT literacy. Seeing the large scope and significant challenges faced, it is recommended that government and development institutions help enable corporations to create such a basis. The example of Kenya showcases these two stages, in which policy actors first collaborated to establish ICT connectivity and the telecommunication sector was privatized and then multiple stakeholders collaborated to empower the corporation Safaricom to build the local market for mobile telecommunication and mobile payments. Especially with regard to the establishment of M-PESA, researchers have stressed the close collaboration among policymakers (Kenyan Central Bank), development stakeholders (UK Department for International Development), and corporate interests (Vodafone) that was required to successfully introduce the service (Hughes and Lonie 2007). From a regulatory perspective, this requires policymakers to

impose relatively lenient regulations, which is why Alexandre (2011) has argued that at this phase of ecosystem development “regulation needs to follow innovation” in cases where the benefits of ICT-related products outweigh the potential risks of underregulation. Given the necessity for ICT-enabled products and services to handle payments and the lack of alternatives to cash-based payments in many contexts, the prioritization of a mobile payments mechanism stands as a prerequisite for the emergence of an ecosystem.⁴ Finally, in this phase, initial community-building efforts among potential entrepreneurs and other ecosystem stakeholders emerge, and discussions around the value, nature, and techniques of using ICT to carry out particular activities need to get started (Mezias and Kuperman 2001; Munir and Phillips 2002). This is the stage that Gustafsson et al. (2015) called the “emergence of activity networks” and “formation of industry identity.” The findings presented earlier indicate that in resource-scarce countries, these processes can develop around entrepreneurial support infrastructure, such as open technology hubs, accelerators, and incubators as well as entrepreneurship competitions. The foundations of such institutions should therefore be established as early as in phase two of ecosystem development.

In the third phase, the preconditions of basic consumer ICT literacy and widespread use of telecommunication and mobile payment services are established. The previously launched community-building processes of the entrepreneurial support system have given rise to a closely connected tech scene. However, given the very early stage of ecosystem development and lack of wider ecosystem conditions, the environment is still far from conducive to new venture creation. The Kenyan ICT ecosystem stood at this phase at the time of my empirical research, and as previously discussed, stark challenges in the state of human capital, culture, finance, and markets prevailed. Nevertheless, the study also showed that enabling processes set in motion by the support infrastructure lead, over time, to the establishment of a sounder human capital base as well as to the formation of conducive sociocultural norms around technology entrepreneurship. Further, the available entrepreneurship support institutions were central in creating hype for technology in Kenya, which was

⁴ See Andersen and Drejer (2008) for a discussion of systemic innovations.

important for the inflow of financial resources and provided a space for financiers and policymakers to interact with members of the tech scene. Enabling factors include the inflow of foreign human capital, the development stakeholder's provision of entrepreneurial grant financing, and their creation of market demand through commissioning ICT-enabled products and services.

If the challenges of the third phase are managed and the enablers continue to build the conditions for entrepreneurship, over time, more and more technology ventures will manage to establish themselves. The successful establishment of first technology ventures advances market emergence in institutionalizing new transactional patterns (Leblebici et al. 1991) and demonstrating market viability (Phaal et al. 2011). Further, identity-building processes that give sociocultural legitimacy to the entrepreneurs begin to take place (Aldrich and Fiol 1994).

With increasing venture formation, eventually the fourth phase of ecosystem emergence is reached. In this phase, a critical mass of technology ventures has formed, creating spin-off effects that bring improvements along all ecosystem dimensions. These effects create self-reinforcing virtuous cycles of entrepreneurship activity that leads to the creation of an ecosystem that, in turn, supports further entrepreneurial activity (Isenberg 2011; Mason and Brown 2014). For instance, the human capital base is upgraded through training and experience, and serial entrepreneurs emerge when former key employees leave their organizations to found their own new ventures (Keeble and Wilkinson 1999). Financial capital, mentoring, and access to networks become available when successful entrepreneurs act as angel investors after a successful exit (Feldman 2001). In this vein, Mason and Brown (2014) stressed the size of entrepreneurial exits as an important leverage factor. Ideally exits should leave entrepreneurs and senior management sufficiently wealthy so that they can reinvest their wealth in other ventures and focus full time on the creation of more entrepreneurship. The vital role of emerging serial entrepreneurs and angel investors as drivers of ecosystem growth has been shown empirically in earlier studies (Drexler et al. 2014). Furthermore, these emerging entrepreneurial success stories build legitimacy for the career path of entrepreneurship in general, shaping social norms around risk, failure and wealth creation and inspiring new generations of entrepreneurs

(Isenberg 2011). With a critical mass of clients, a support network of professional and technological services emerges. These include law firms with expertise in intellectual property, venture capital firms, management consultants, and technology-marketing firms (Kenney and Patton 2005). Additionally, the market becomes increasingly easier to penetrate as ICT products become more established. Finally, experienced entrepreneurs often take on public positions or advise policymakers in the creation of entrepreneurship-friendly policy (Isenberg 2011).

Conclusion

This chapter has offered a holistic perspective on the barriers to and enablers of the maturation of Kenya's early ICT ecosystem across the dimensions of culture, human capital, entrepreneurship support systems, finance, policy, and markets. Enriching these empirical insights with relevant theory on how ecosystems emerge and develop, I have proposed a model that explains how ICT ecosystems can emerge in resource-scarce contexts despite the absence of important preconditions. The model shows how enabling processes can be drawn on to substitute and establish the condition factors. The recommendations developed below are addressed to governments, development stakeholders, and practitioners in resource-scarce countries that seek to move their young ICT ecosystem toward maturity.

1. **Get the foundations right—ICT infrastructure, mobile payment, telecommunications market, and entrepreneurial support infrastructure**

The fact that technology ecosystems need, at the very minimum, ICT infrastructure, a way of handling payments, and a functioning telecommunications market is not surprising. What is surprising is the central role that the research presented here found entrepreneurial support institutions to play in catalyzing early industry emergence processes and establishing the conditions for entrepreneurship, particularly for developing human capital and creating interest in technology entrepreneurship. The establishment of support infrastructure, such as open technology hubs,

entrepreneurship accelerators, and competitions, should therefore be undertaken very early in the ecosystem emergence process, both through private and public sector efforts.

2. **Enable the enablers—entrepreneurship support infrastructure, inflow of foreign human capital, and public sector market for ICT products**

In addition to the pivotal role of entrepreneurship support infrastructure, the inflow of foreign human capital has proved beneficial in overcoming human capital shortages in the short term and in building a sounder resource base in the medium term. A structured program to increase inflow and the exchange of relevant human capital between the local and more mature ecosystems would further leverage such effects. The program could proactively invite entrepreneurs and facilitate the processes through arranging visas, accommodations, and the like. In addition, an exchange scholarship program for local talent to gain working experiences and networks in other ecosystems would also be beneficial. In this vein, diaspora Kenyans active in ICT industries abroad may prove valuable and may be willing to provide mentoring or even angel investments for emergent Kenyan ICT ventures when invited to do so. Such human capital development interventions need to be made alongside ongoing educational reforms. Another enabler is the commissioning of ICT-enabled products and services to solve social problems on behalf of governmental, NGO, or international development stakeholders. In Kenya, these have emerged as being key for early market emergence and the emergence of first technology ventures. To support the emergence of an ICT product market, some governments have also provided tax incentives for private sector companies that buy from new and local ICT ventures (see Drexler et al. 2014, pp. 77–80, for more information on creating early market demand).

3. **Create kick-starter firms that set spin-off effects in motion**

The establishment of first technology ventures is critical to ecosystem emergence because they set powerful spin-off processes in motion that, over time, automatically eradicate some of the barriers to emergence. For the provision of entrepreneurial financing, this means that despite the

somewhat ambiguous impact of nonmarket-based sources of financing, their benefits outweigh their drawbacks in this context. Because traditional sources of early-stage entrepreneurial financing are either not present or unattainable, alternatives need to be provided. In addition to the competitions and grants that were available in Kenya, I therefore propose to introduce an entrepreneurial stipend program financed by public stakeholders. In such a program, entrepreneurs receive a monthly stipend to cover their living expenses during the first phases of the venturing process, accompanied with relevant mentoring in order to produce viable businesses for market-based investors to invest in. A major example is Germany's EXIST technology entrepreneurship scholarship program. It is administered through university incubators and has been shown to positively influence network formation and the integration of universities in regional entrepreneurship ecosystems (Koschatzky 2003; Exist.de 2016). In this spirit, developmental finance organizations should provide investment capital and resources for operational costs to existing early-stage investment funds and accelerators to address the seed capital shortage (see GSMA 2014). These funds are already capable of selecting promising ventures and providing nonfinancial resources and hence are in a better position to administer seed capital than, for example, governmental stakeholders or donor agencies themselves (Avnimelech et al. 2007). Simultaneous efforts to support human capital formation, as proposed earlier, will offset at least some of the detrimental side effects of such interventions. Finally, policymakers can enable spin-off effects by providing tax breaks for angel investments and entrepreneurs and by further removing bureaucratic obstacles to new ventures. To achieve the latter, other countries have installed offices or contact staff that provide swift governmental services, such as business registration, operational permits, and employee visa arrangements, to technology firms.⁵

4. Engage practitioners in continuously refining your ecosystem-fostering strategy

It is—and should be—a common recommendation to governments to involve local practitioners in the design of their entrepreneurship policy,

⁵See, for example, Berlin-partner (2016).

because these are the actors who know about the unique challenges and enablers present in the ecosystem (Isenberg 2010, 2011; Vogel, 2013). As this chapter has shown, taking a holistic and multidimensional ecosystem perspective requires decision-makers to account for hundreds of different factors. This can only be achieved through intense and ongoing exchanges with ecosystem stakeholders from the respective dimensions. The need for such bottom-up information and co-design of policies is especially pivotal in resource-scarce contexts, where a lack of knowledge of approaches that work in such contexts might tempt policymakers to copy generic policy prescriptions that “worked in the West.” In Kenya, many achievements in kick-starting the ecosystem were driven by practitioners themselves, who took the initiative to open technology hubs and other support institutions. Such stakeholders are an invaluable resource because they already have a good overview of the ecosystem. Policymakers therefore need to put processes in place that enable the engagement of practitioners in the design and continuous refinement of their ecosystem-fostering strategy. Examples for such processes include establishing an open-door culture for ecosystem participants to talk with policymakers as well as regular fixed-day meetings and roundtable discussions that bring together experts from all ecosystem dimensions. Once such processes are in place, policymakers can start launching ongoing rounds of intervention and feedback that facilitate the emergence of an environment that breeds high-growth technology entrepreneurship.

5. Anticipate the challenges and prepare to meet them

A dynamic perspective acknowledges that ecosystems face different challenges at different phases and enables participants to prepare for what is coming next. Two challenges that nascent ecosystems may encounter on the way to maturation have emerged. First, the suggested early empowerment of a private sector enterprise to build embryonic telecommunication market structures may later lead to the presence of a powerful incumbent that stifles competition and entrepreneurial efforts. Policymakers should address this from the start, when, for example, negotiating licenses with such a corporation, and find ways to encourage the incumbent to interact with the ecosystem at later stages (also see GSMA 2014). Second, the inflow of foreign ecosystem participants leads to a culturally very diverse entrepreneurship scene. The research presented

here found that dissonant underlying assumptions around the goals and processes of entrepreneurship between local and international stakeholders cause friction that disturbs ecosystem functioning. It is therefore important to enter into a dialogue about the value of local venturing processes and the need to integrate the various approaches. Continuous efforts in that direction may lead to the institutionalization of better venturing processes that benefit from internationally proven practices while also being locally responsive.

Future Research

The research presented here has provided much-needed insights into the challenges and enablers that shape the development trajectory of nascent technology ecosystems in resource-scarce contexts. However, these findings have only scratched the surface of what is out there and, given the qualitative nature of the research methods, require validation and extension through further grounded theory research. In this spirit, anthropological and sociological research is urgently needed to understand more about the contexts' cultural dynamics. Potential starting points for such explorations could be the increased uncertainty avoidance of potential entrepreneurs caused by feelings of responsibility for their extended family members, the role of networks around entrepreneurship support institutions in establishing trust in an otherwise institutionalized low-trust context, and the dissonant cultural values and venturing practices between international and local practitioners that impede venture creation. Moreover, further research on the question of entrepreneurial financing mechanisms that are appropriate in resource-scarce and young ecosystems is pressing because as this research indicates, neither non-market-based financing nor the Western venture capital model provide a fully satisfying fit (see Chapter 14 Gugu and Mworira in this book). Are there local cultural practices that could be drawn on to develop a financing mechanism that is more appropriate to the context? What are ways to draw in more local investors?

This research's model of nascent ecosystem development in resource-scarce contexts outlines relatively broad phases that need refinement.

Researchers may want to compare different ICT ecosystems across resource-scarce contexts in longitudinal studies to determine challenges that are inherent to different ecosystem development phases and how to overcome them. Although the model focuses on very early stages of ecosystem development, the Kenyan ecosystem in 2016 seems to be approaching maturation. How does maturation integrate into the model? What learnings does Kenya's maturation provide for strategies of fostering nascent ecosystems? What new challenges and enablers arise at this phase? My research argues that, for ecosystem maturation, entrepreneurial spin-offs are pivotal and that both large entrepreneurial exits as well as formally new ventures that manage to grow to a large-scale leverage spin-off effects (Mason and Brown 2014; Mayer 2013). Large exits, however, require several rounds of growth capital so that entrepreneurs can grow their business to a stage where substantial value has been created, and they demand the presence of large corporations or potent investors to act as buyers (Mason and Brown 2014). Moreover, the rapid growth of firms may require the collection of equity on public capital markets (Mayer 2013). Are these conditions sufficiently established in Kenya and other resource-scarce contexts? And: Do phenomena that work in resource-rich contexts, such as crowding-in of investors, work in resource-scarce contexts?⁶

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⁶See Avnimelech et al. (2007) and Wonglimpiyarat (2015) for a discussion of the conditions that made Israel's Yozma initiative successful.

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Conversation #8

Women Working in Tech: Making the Invisible Visible

Judith Owigar of AkiraChix



Judith Owigar is an African entrepreneur who uses technology as a tool to empower youth and young women. She believes that exposure to, education about, and actual use of technology can improve quality of life—and as such change the world for the better. Judith is a co-founder and the operations director of AkiraChix, a not-for-profit that aims to inspire and develop a successful force of women who create technology solutions, change women’s perception of technology, and change Africa’s future. She is also the founder of JuaKali, an online platform that links skilled manual laborers in Kenya’s informal sector—commonly known as JuaKali workers (Kiswahili for “hot sun”)—with employers in the construction industry.

What is the story behind AkiraChix?

A group of friends and I started AkiraChix in 2010. It all stemmed from the need to see more people like us in the field of technology. Three of us in the original co-founding team worked in the same company, and we constantly felt we needed to prove that our work was good enough. We were three women among the total of five developers, and outsiders from the neighboring company would come and ask, “Who actually codes in this office?”—then they would look at the dude. We felt invisible.

My generation grew up with the common stereotype that women have lower mathematical or critical thinking ability than men. This has affected how men view women in the workplace and also how women viewed themselves. It has led both men and women to question the place of women in science, technology, engineering, and math fields. Our personal experience as women developers led us to start a community for women in technology where we are visible, can support each other, and can grow our skills—because we wanted to be the best in our field!

What is the biggest fear when it comes to working in an environment that is male dominated?

One of my greatest fears was to be my true self as woman in a male-dominated space. When I first entered the technology space as a university student, my first thought was to find a way to fit in. At that time, I thought the best way to fit in and blend with the crowd was to act more like my classmates and play down my feminine attributes. The fact that I was a woman by itself made me stand out. My choice of clothing was greatly influenced by the fact that I did not want my womanhood to be the center of attention. It was easier for me to wear baggy clothes because I was not confident in my femininity. Over the course of the years, I have become confident in the fact that I am a woman and I am a technologist. I have come to realize that I need to hold both identities in order to be my true self. I think this is one of the underlying reasons why many women shy away from male-dominated spaces, because you feel like you have to give up a part of yourself to fit in. One of the reasons I believe AkiraChix is such a strong force is because we give women the freedom to be themselves.

When was the first time you realized that AkiraChix was going to work?

Our point of validation came when we participated in hackathons. There used to be very many hackathons at the iHub, and as usual there were always more men than women. In the early years of the iHub, most of the girls who participated in the hackathons were members of AkiraChix. We usually worked together as a team. The point of validation came when other women would come to the event and would look at us and ask to join us. From that moment on, it validated our point that there was a need to have a women-only space where women could take risks, fail, learn, and succeed.

What is the vision of AkiraChix?

AkiraChix's vision is to nurture generations of women in Africa who use technology to create solutions and positively affect their community. In order to make our vision a reality, we would like to have organizations like AkiraChix all over Africa. Ultimately, we would like to see more women join the field of technology. We will say that we have accomplished our vision when the representation of women in the field of technology is no longer an issue.

When we started building the technology ecosystem in Kenya, we used to copy a lot of what we saw in Silicon Valley. We used to read a lot in Mashable, TechCrunch, and so on. We read about all these start-ups that seemed to be overnight successes, with their massive valuations and big IPOs. For a moment, we felt like we were in Silicon Valley ourselves, forgetting that we live in Kenya, where very few people have much disposable income and when it comes to technology, they want to spend their money on something relevant. Very few people in Kenya use technology just because it is fun. We have realized that in order to sell in this market, the service needs to serve a real need or address a clear pain point. Over time we have realized that it takes more work to build a software-based business-to-client service than a business-to-business service—and we really had to rewire our thinking with regard to operating a technology business in our context.

As a co-founder of AkiraChix, I looked to Silicon Valley to give me answers on how to work on the issue of women's low representation in technology. But over time, I realized we had a better chance of solving the issue for ourselves right here in Africa, because the technology ecosystem was young and in its formative stages. If we tackled the problem before it became as institutionalized as it is in Silicon Valley, then we had a better chance of success. I came to see that we are operating at the best time to address this problem. Our hope is that, 20 years from now, women will account for more than 40 % of the workforce in the field of technology.

In order to achieve this vision, we want to scale to five training centers in towns and cities all over Africa. We also want to expand to the major urban centres within Kenya. And in order to reach more African women technologists, we plan to partner with hubs and co-working spaces all over the continent to support their initiatives of having more women represented in technology. We are currently developing the Akirachix model that we can share with interested people and organizations. This is the best way and time for us to write the story of African women in technology.

How did you create a community for women?

We started by having monthly meet-ups for women in technology. Over time, we realized that we were sharing a lot of information and knowledge among ourselves that other women could benefit from. We therefore decided to start a training program that targeted young women from low-income areas. We wanted to target young women who did not have an opportunity to be in the technology industry. Over time, we also started a high school program so that we could expose girls in secondary schools to careers in the technology industry. We had realized that many girls did not consider careers in technology, because they did not know about them, and if they did they did not see women whom they could identify with.

As we continue to grow our community of women in technology, we have also realized that we need to work with men in the industry as our partners. This is because the women we work with do not exist in a vacuum. They work and study with men in school or on the job. One of the

ways we have been doing this is by engaging men in our programs. Many of our trainers, for example, are men. On a wider scale, we encourage the members of our network to participate in events hosted at the iHub co-working space. One of our greatest realizations as AkiraChix was that we are a subcommunity within the greater tech community. We are not a separate entity. Recognizing this and communicating it to the tech community has made them more open to supporting our activities.

What are the kinds of struggles you get exposed to as a female entrepreneur?

There is a lot of sexism in Kenyan culture, and it is hard for a woman to be viewed as a competent leader. If a woman gets assaulted or battered, she usually gets blamed for it irrespective of how the man acted. It is usually considered to be the woman's responsibility to prevent such acts of violence. For women who are leaders in technology or leaders in other professions, the bar is set much higher. We are expected to navigate unwritten social rules when dealing with both men and women. There is also the assumption that marriage validates a woman's leadership abilities. This can make it harder for a young unmarried woman like me to get respect in certain circles.

Being a part of Acumen's East Africa Fellows Program has helped me understand and appreciate myself as an influencer in my community and helped me define my purpose. Through this experience, I no longer look down on myself just because I am young—and I strive to be an example in my speech, conduct, love, and faith.

How did it happen that you were on the same panel with Presidents Uhuru Kenyatta and Barack Obama at the Global Entrepreneurship Summit (GES)? What did it mean to you?

I was contacted two weeks before the conference and asked if I was interested in participating in a panel at the GES. I was asked to give a two minute pitch of any subject I would like to discuss. I gave a mini elevator pitch on Akirachix. At that moment I did not realize I would be giving a more refined version of that pitch while seated between the President of the US, Barack Obama, and the President of Kenya, Uhuru Kenyatta, two weeks later.

That experience gave validation to the work we as AkiraChix have been doing. On an individual level, I felt that I represented very many young African women who are trying to make a difference in their communities. At that moment on stage, I felt I was speaking for young women all over Africa.

Thank you, Judith!



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