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Most consider Wakanda in Marvel's *Black Panther* to either be a dystopian future or pre-colonial kingdom in Africa; few realize it is more grounded in the present day than ever. Tech hubs in Africa are links and catalyzers that reap the benefits of 'cluster theory'. Thus, they are touted to be the saviour of many problems on the continent including brain drain and infrastructure deficits. Hubs are also looked to address social issues in health and education, develop human capital, empower budding entrepreneurs, contribute to gender inclusivity in ICTs, and counter the colonial rhetoric of an impoverished continent. Still, they are plagued with obstacles related to inequality in urban tech cities, conflict with governments, and competition among hubs. Relatedly, they grapple with the nuances of technological determinism, the economic realities of existing at the axis of a business for social good, and finally the dangers of tokenizing women and other minorities in the attempt to be performatively diverse. This paper explores the potential successes and pitfalls of tech hubs in Africa and affirms that importing a Silicon Valley approach is problematic.

According to De Beer et al. (2016), technology hubs operate as a combination of workspace, internet cafe, coffee shop, training centre, incubator, accelerator, event venue, meeting space for a community, and maker space. They attempt to facilitate knowledge sharing, inspire creativity, mentorship, and networking opportunities. Although attempts to categorize and count tech hubs on the continent are met with limited success, according to Forbes, as of 2019, there were approximately 650 hubs in Africa (Shapshak, 2019); Appendix A represents a relatively accessible taxonomy of 3 categories: cluster hubs, company hubs, and country hubs.

The success of tech hubs universally are attributed to specific features including government support (e.g. funding, market, infrastructure); science, technology, and innovation; strategic partners (e.g. business partners, funders, mentors); a community of members (e.g. entrepreneurs); human capital (i.e. skills, education, experience); research and development; and monitoring and evaluation mechanisms (De Beer et al., 2016). In general, tech hubs are considered practical economic and social tools due to 'cluster theory' and their status as links and catalyzers.

Cluster theory proposes that a regional network presents opportunities for coordination, mutual improvement, and productivity growth, such as in California's Silicon Valley and the Greater Boston corridors (Route 128). It is considered adequate for several reasons. Sometimes, each entity fulfils a distinct purpose of the overall community; for example, m: Lab is an incubator focusing on early-stage startups, Nailab is an accelerator working on early to medium-stage startups, Akirachix concentrates on increasing the number and role of women in the technology scene, Gearbox is a maker space for design and rapid prototyping, and Savannah Fund is an accelerator fund set up by several partners – all of them are found in the Bishop Magua Centre in Nairobi (De Beer et al., 2016).

A cluster hub is likely to have at least one incubator, accelerator, shared working space, and investment entity, but other reasons for success due to proximity are when: one hub's success appears to attract others to create similar but separate (and sometimes complementary) spaces (e.g. Nailab's existence next to iHub), affiliates of one hub may identify a need and create a new hub to fill that void, supporting entities such as restaurants and coffee shops often serve all hubs, and 'experts' often split their time across among the various hubs (De Beer et al., 2016).

Another example of cluster theory in practice is tech hubs at academic institutions, which act as a conduit between the private and public sector. At colleges, the likelihood of 'collisional moments' – the possibility that like-minded people will come into contact with each other – is higher due to the density of tech graduates. Additionally, the university name's 'halo effect' (name recognition) is also likely to play a role, for instance, the multi-million dollar IBM investment at TechinBraam by the University of Witwatersrand's Joburg Centre for Software Engineering.

Furthermore, as links and catalyzers, they are considered successful as they act as intermediaries across the public and private sectors, facilitating meaningful connections that help start-ups become successful. For example, a report by VC4Africa in 2015 observed that startups that participate in an incubator or accelerator program or are selected for a "pitch event" obtain on average $126,090 in external investment – 23% more than their counterparts who do not engage in such activities (De Beer et al., 2016).

However, to examine the rise of tech hubs in Africa specifically, it is crucial to delve into the history and nature of the tech space globally and on the continent. In 2000, the

African continent had less internet connectivity than Luxembourg (De Beer et al., 2016), but the advance of science and technology was shaking up global patterns. The shift from labour-based to science-based capital formation was accompanied by a change in migration patterns that caused 'brain circulation' of skilled workers; more often than not 'brain drain' from the Global South and 'brain gain' to the North (Radwan and Sakr, 2018).

Nonetheless, the African continent has a complex history associated with technology. For example, South Africa's apartheid military manufacturing background gave birth to state-sanctioned scientific research and now has a legacy of an extensive military-industrial complex (Kahn and Reddy, 2001). Additionally, the Southern African Development Coordinating Conference in the 1980s assigned primary responsibilities of particular issues to different countries; for example, Zimbabwe was responsible for researching food security and Botswana was entrusted to explore livestock research. Since most of the region's states didn't invest in a comprehensive, holistic science and technology program, as Egypt, Kenya and Nigeria boom with tech hubs, Botswana, Rwanda, and others still play catch up (Shapshak, 2019). Therefore, Khan and Reddy's (2008) regret that under apartheid, and still today, South Africa is plagued by "pockets of excellence within a sea of poverty" is valid across the continent.

Today, Africa is perceived as the messiah of growth due to its large, young, and mobile-enabled population hungry for a digital ecosystem to multiply that growth (Chakravorti and Chaturvedi, 2019). Hence, it is no surprise that Mark Zuckerberg's first-time visit to tech hubs in Nigeria and Kenya inspired the phrase "The future will be built in Africa" (De Beer et al., 2016). However, it is vital to probe whose future are they building, what kind of future is it, and what about the present?

Currently, the technology space is closely related to social impact. Despite the comparison to Silicon Valley in America, Kenya's $1 billion tech hub supporting over 200 startups ('Silicon Savannah') is not concerned with apps to help consumers find a parking spot or assist with laundry folding. Instead, most innovation is geared towards health and education. Besides, the origin of hubs in Kenya is credited to the founders of the non-profit Ushahidi (who also founded iHub) – an internationally renowned crowd-sourced mapping tool created in the aftermath of Kenya's 2007 disputed presidential election (De Beer et al., 2016)**;** this pattern of tech for social god continues today.

For instance, BRCK provides internet to off-the-grid schools via solar-powered tablets and routers, and AB3D turns electronic waste into affordable 3D printers that generate artificial limbs for medical use (Mallonee, 2018). Therefore, due to the plethora of significant differences from Silicon Valley, researchers hesitate to use the term, and some proposed alternatives include 'Digital Savannah.'

The alignment of tech hubs for social good is particularly relevant given that they are touted to be a solution to many of the continent's socio-economic problems, including 'brain drain', sparse financial and human capital, inadequate infrastructure, and gender discrimination. Hence, it is pertinent to understand the context of these issues to appreciate the potential and limitations of tech hubs as a developing 'technology'.

Infrastructure and capital limitations contribute to a harsh socio-economic reality in Africa. The continent struggles with an absence of angel investors and seed capital for tech and start-up ventures (De Beer et al., 2016). Local investors prefer traditional and straightforward investments in real estate and cannot comprehend the software space, whereas international investors fail to understand the local situation. For example, Leslie Tita, co-founder of I/O Spaces, remarks that many American investors "often enter the continent with a Silicon Valley mentality, which does not work. Such mentality drives investors to push for equity, which does not mean much in Africa, where most entrepreneurs are trying to stay afloat, and build up revenue streams."

However, researchers have identified that ICT is key to transforming traditional economies into information and knowledge-based economies in Africa. Therefore, tech hubs could serve as the digital ecosystem and infrastructure required to inspire confidence in investors and fill in knowledge gaps for foreign investors. Tech hubs have a vast potential to address infrastructural deficits to attract FDI, global partnerships and act as a locus point such as the Ethio ICT Village where the technology park has drawn increasing numbers of foreign firms to establish a local presence. Like China's ZTE and Techno Mobile, firms have committed to establishing their own incubation centres, which add to knowledge transfer and employment too (Kelly and Firestone, 2016). Therefore it is evident that tech hubs could become a point of engagement with other countries outside the continent as well as within and mobilize markets such as the BRICS, South-South (other developing countries), NAFTA,

and the pan-African market created by the African Continental Free Trade area to improve regional collaboration (Chakravorti and Chaturvedi, 2019).

Additionally, brain drain is a significant problem on the continent. Given that migration increases growth in 'developed countries' but generally slows down growth in 'developing countries' (Shuaibu and Oladayo, 2016), the 'brain circulation' associated with the technology boom is concerning, especially since almost 80% of eminent scientists born in the Global South now live in the Global North (Radwan and Sakr, 2018). Furthermore, in the early 2000s, 80% of registered patents belonged to residents of 5 countries (US, Japan, South Korea, Germany, and Russia). Although China and Europe have entered the field, Africa is still underrepresented. Patent origins represent a 'brain drain' since empirical evidence suggests patent citations are a proxy for technology flows (Radwan and Sakr, 2018). Traditional methods to curtail the 'brain drain' such as Exit taxes have been considered less effective. Instead, researchers suggest that improving the mobility of scholars and investing more in promising young African scientists to assist reintegration into their home countries after working and studying abroad may be more effective (Radwan and Sakr, 2018, Bassioni et al., 2016). Tech hubs may be a tool to achieve this mobility and reintegration.

Furthermore, low human capital development (HCD) only worsens the effects of 'brain drain'. HCD enhances manual labour, research and development, information processing ability and incentivizes foreign direct investment to act as a critical source of capital and knowledge (Makoni, 2019). However, Africa is regarded as the least developed continent in terms of overall development and specifically in terms of HCD (Shuaibu and Oladayo, 2016). In fact, in 2012, the gross tertiary school enrolment in Africa was 8.1%, while in North America it was 90.9% and the world average was 32%. Tech hubs present themselves as an avenue to address the problem of HCD according to Amartya Sen's 'capability approach'. Sen contends that an individual's capability is determined by social context, endowments of the individual, and opportunities and choices offered to the individual, all of which can be provided by the network of a tech hub (Shuaibu and Oladayo, 2016).

On the contrary, some researchers argue that hubs are glorified, under-performing and unlikely to have significant long-term implications on economic growth (De Beer et al., 2016). This rhetoric is predominantly rooted in the 'incubator expectation' that is only

concerned with hubs' outcomes; thus, they are measured against their results regarding technology startup creation or development (Friederici, 2018). By this metric, Nigerian technopreneur Mark Essien criticizes incubators, and he argues that "Of the 9 biggest software startups in Nigeria, none was built by an incubator. … Of the 15 next biggest software startups … only one used to operate from CcHub. Incubators just don't work, otherwise, they would have produced more successful startups in Nigeria. Even Kenya and Ghana that have a stronger incubator scene have produced nothing of note." Similarly, Friederici (2018) and others elaborate on this critique. They observe little evidence supporting the theory that hubs arise to compensate for market failures or those business models of social impact accelerators generate sustainable revenue streams (De Beer et al., 2016).

Additionally, other economic challenges that tech hubs encounter are that it could take anywhere between 3-40 months or up to 5 years for a start-up to reach a break-even point and build a business, all the while the accelerators may potentially encounter a free-rider problem where investors look to accelerators as "sourcing mechanisms," but do not view it as their role to support accelerators. For instance, only twenty per cent of investors help to fund the operations of accelerators (De Beer et al., 2016). Consequently, tech hubs and accelerators struggle to survive; for example, a survey of more than 230 startups across Kenya in 2014 demonstrated that at least seventy per cent of the country's startups were "not earning enough to maintain business and living expenses for a small team."

Moreover, it is essential to examine the trickle-down effects of tech hubs and whether economies holistically benefit from them. A study based on high technology labour markets in the UK from 2009-2015 reveals that high-tech industries act as a positive jobs multiplier, with each 10 new high-tech jobs creating around 7 local non-tradeable service jobs (around 6 of which go to low-skilled workers) (Lee and Clarke, 2019). In addition, although employment rates for mid-skilled workers do not increase, they benefit from higher wages. Yet while low-skilled workers gain from higher employment rates, the jobs are often poorly paid service work, so average wages fall mainly when increased housing costs are considered. This study contributes to a growing body of literature on the reality of a new urban crisis and inequality in 'tech cities' where you have affluent workers in advanced sectors but low-wage workers in personal services nearby. High housing and living costs due

to gentrification also reduce the living standards of low-skilled workers. Although such data hasn't been collected in Africa yet it raises the question of whether government policy should focus on ensuring low skilled workers are in employment in tradable sectors such as manufacturing which generate stable jobs to begin with, instead of heavily investing in supporting tech hubs that innovate at the edges instead of building a solid centre.

On the other hand, a human-centred approach to tech hubs which builds on Sen's 'capability approach,' argues that hubs are collaborative spaces that may contribute to development in ways not directly linked to employment or market-based products. Jiménez and Zheng (2018) suggest that tech hubs contribute to human well-being and agency and should be valued even if they fail to generate successful businesses, jobs, or solutions to addres their countries' problems. Some experts who can find employment outside the hub still chose to stay and work on their projects due to the sense of identity and direction that hubs provide for them. Here, tech hubs function as a sort of counter-culture that legitimizes their work since their careers are not understood or accepted within the larger society. The hubs help them overcome rhetoric of rejection that stems from a culture that fails to consider a career in tech and entrepreneurship as a productive one. Hubs also give these individuals freedom to explore the intrinsic value of creativity while also learning about the legal, scientific, and business landscape, such as how to register a company, which most individuals are unaware of despite technical expertise.

Further, the sense of community and strong bonds formed in the hubs contribute to why members repeatedly return. Trust is a crucial element in tech hubs due to potential concerns about copying. Still, Jiménez and Zheng (2018) observed that members' open approach in Lusaka did not involve intellectual property or copyright conversations. The focus is on learning, problem-solving, and mentoring. At the time of their study in Lusaka, no innovations generated revenues yet produced other aspects of human development, including fostering creative thinking, community, agency, gender equality, collaborating, and building individual and collective identity. Therefore, Jiménez and Zheng (2018) argue that "tech hubs as an organization should be considered as institutional mechanisms for human development in the sense that they could expand both individual and collective capabilities."

Moreover, some researchers suggest that hubs should align their priorities with the government and social issues to ensure a cooperative relationship while still maintaining their

independence (De Beer et al., 2016). Additionally, the digital divide and learning divide have also encouraged innovation as a tool for social inclusion, known as inclusive innovation – "the development and implementation of new ideas which aspire to create opportunities that enhance social and economic wellbeing for disenfranchised members of society" (Jiménez and Zheng, 2018). Here innovation is measured in respect to the excluded – are they involved in the development of innovation, and can they beneficially adopt the innovations?

Nonetheless, it is important to recognize the challenges tech hubs encounter as for-profit businesses attempting to address social issues. The half-way approach to corporatizing can be an unsustainable identity crisis. This is because hub failure often stems from an incongruence between either the organization's goals and its business structure or between its goals and the needs of its operating environment (De Beer et al., 2016, Kelly and Firestone, 2016). Similarly, as a consequence of this identity crisis, hubs can overextend themselves, for instance, Plug and Play Egypt over-extended itself attempting to accelerate and mentor start-ups, provide training to young entrepreneurs, and offer financial support to incubatees, without a sufficient funding pool to support such an extended apparatus. Further, challenges also arise when the aims of the organization fail to fit the needs of its context. For example, suppose the entrepreneurship ecosystem is young and the pool for talent is slim, resources are likely to be more productively utilized to boost the skilled labour force and cultivate a culture of idea generation (Kelly and Firestone, 2016).

Likewise, another obstacle is competition among hubs despite their premise for social good. For instance, the highly anticipated tech city in Kenya, Konza, could serve to accelerate synergies between Konza and the 'indigenous iHub community' but it could also undercut the organic 'iHub community' because there remains a limited supply of local talent in Kenya so the competition for top talent is conceivable (De Beer et al., 2016). Secondly, if government funds allocated to infrastructure (e.g. roads, electricity, water, and sanitation) are prioritized in Konza over the cluster hub in Nairobi, that could pose challenges among the stakeholders in the tech landscape. Also, competition could disrupt existing relationships by, for example, dividing communities or isolating developers and entrepreneurs based in Konza from end-users in Nairobi.

Despite the competition, tech hubs can be a means to strategically utilize scientific research for the cause of gender inclusivity and equality. In spite of exceptions in South

Africa, Mozambique, and Cameroon, where women own more mobile phones and have a greater knowledge of the internet than men, generally, especially rural women, have less access to employment, education and other opportunities that increase their likelihood to own mobile phones and ICT technologies (Gillwald et al., 2010). Jiménez and Zheng also identify that gender norms pressure women to become teachers, nurses or pursue other traditionally 'female occupations' over tech. Therefore, although Gillwald et al. (2010) claim that gender inequities in access and usage of ICTs cannot be addressed directly by ICT policies, tech hubs can act as a form of education and participation in STEM that encourages employment and income-generating activities, which in turn improve access to ICTs and allows them to participate in society and the economy more actively.

Nevertheless, like in most industries, equity and inclusivity is complex and can sometimes be simplified to performative and tokenizing outcomes. Obstacles for women in tech spaces include not feeling welcomed, especially if they are middle-class and from rural areas, and a lack of female-female mentorship (Jiménez and Zheng, 2018). Furthermore, McCarrick and Kleine (2019) add further nuance by questioning "what assumptions are being made about the ability of all women to be included and to benefit from such [entrepreneurship] programs?[...] to be included and benefit, what logics and framings must women subject themselves to or be subjected to?" McCarrick and Kleine argue that "using ICTs to support female entrepreneurship often fits the logic that casts women as neoliberal subjects with a high level of flexibility, self-motivation, risk-taking, confidence, embrace of change, and tolerance of precarity." They call out the reduction of complex, more significant concerns of gender inequality to questions of "counting women" in mainstream development interventions.

Further, they raise the vital nuance of varying responsibilities between men and women, which affects access to opportunities. For instance, one respondent in their study identifies that they have "[...] never seen a man stay at home because their mother is sick. The men come to the extra courses, but the women often have to prioritize differently." Therefore it is clear that merely providing a space for women via tech hubs is insufficient as broader cultural circumstances need to be addressed.

Yet, another potential that tech hubs have fulfilled to some degree is that of a global paradigm shift in the characterization of the continent's reputation. Photographer Janek

Stroisch reflects on how the booming tech space in Nairobi was surprising to him, his understanding of Kenya had been "shaped by photojournalistic images of poverty, war, and disease—depictions that didn't paint a full picture of the country." He says, "There was no space for technical innovation in my old-fashioned image of Kenya," (Mallonee, 2018). Although it is disappointing that such colonial perspectives still need to be challenged, the newer futuristic presentation of Africa also has the potential for fetishization, romanticization, and technological determinism.

Ory Okolloh, an African entrepreneur, elaborates on why innovation and entrepreneurship do not equate to development by describing that the fetishization comes from an inclination towards the next new trend. She mocks the sentiment by remarking, "Like, don't worry that there's no power because hey, you're going to do solar and innovate around that. Your schools suck, but hey there's this new model of schooling. Your roads are terrible, but hey, Ubers works in Nairobi, that's innovation." Okolloh questions the urgency to innovate and asks who the pressure is coming from. She also notes that many tech hubs were born out of an absence of safe spaces to work from, thus, the media shouldn't romanticize the trauma people face associated with it (Jiménez and Zheng, 2018). Consequently, Jiménez and Zheng (2018) discuss the invisibility and erasure of people in innovation as most studies fail to address *who* is innovating and *who* is investing.

Furthermore, given the increasing perceived legitimacy of entrepreneurship, for example in Egypt where, more than 73% of Egyptians think entrepreneurship is a good career choice, and a total of 46% of Egypt's adult population can recognize good market opportunities for new businesses it is crucial to probe why it is becoming popularized (Egypt Today, 2019). Friederici (2018) argues that the 'discourse of inevitability' is dangerous given that it simplifies power structures. He elaborates that future scholarship needs to examine why tech hubs arose in Africa, especially since when the broadband boom occurred in South Asia and Latin America, software developers and tech entrepreneurs needed physical spaces to work and collaborate too but they didn't rely on innovation hubs in the same manner.

Finally, the role of the government in tech hubs is an intriguing point of analysis. According to De Beer et al. (2016), country hubs (Appendix A) can "evolve intentionally due to government policies (government-led country hubs) or unintentionally due to an organic clustering of like-minded entrepreneurs in a city, country, or region (sector-led or

"government follows" country hubs or a combination thereof)." Kenya embodies the former approach since the launch of M-Pesa and other technological breakthroughs such as Ushahidi and iHub. Examples of deliberate policy actions to encourage tech hubs include government investment to create investor confidence in others, the East African Community (EAC) for regional integration in ICTs, Kigali's city-wide Wi-Fi, Huduma (Swahili for 'service') centres (one-stop shops for government services including registration of business names, procurement of national identity cards and drivers' licenses, and filing of tax returns), and the Companies (General) Regulations in Kenya which made it easier and faster for entrepreneurs to register their companies. As a result, Kenya's Ease of Doing Business rank improved significantly from 129 in 2014 to 108 in 2015 (De Beer et al., 2016).

Government support can also limit barriers to entry and allow small businesses that struggle to manage high fixed and R&D costs, to enter a competitive space. In addition, a lack of centralized guidance and training may leave some countries that are resource-poor and politically volatile such as Jordan and Rwanda, behind, thus worsening the digital divide in the region. Some countries have provided such guidance; for example in Ethiopia, overall enrollment in higher education facilities has grown five-fold since 2005. The government has a policy of training 70% of students in STEM, so the human capital base is strong. However, tech hubs can also come into conflict with the government. For instance, "picking winners" and incentivizing firms and labour to do what market forces can do naturally may cause resource surpluses in some areas and scarcity in others unless the industry encounters some market failure (Kelly and Firestone, 2016).

Still, there is minimal research on this promising new phenomenon of start-ups and tech-hubs on the continent. Although there is plenty of grey literature in the form of blogs, white papers, consultancy reports, and brief comparative studies, there is a limited academic scholarship that intentionally accounts for regional or country-specific data. As a result, there is inconsistent nomenclature and a detailed understanding of the industry (De Beer et al., 2016). Relatedly, the novelty and fluidity associated with tech hubs make measuring success incredibly difficult; there's still debate in academia and the field on the yardstick for success between broader and more empirically ambiguous goals such as community development or more specific milestones such as venture development (Friederici, 2018). Specifically, instead of the number of incubator 'graduates', some researchers encourage monitoring the

number of 'graduates' who continue to operate their startups 3-5 years post-graduation, which is still tricky in Africa because most incubators are yet to have a lifecycle of 5 years (De Beer et al., 2016).

Thus, it is evident that tech hubs in Africa, in all their distinctive shapes and forms, build on the benefits of 'cluster theory' and their role as links and catalyzers. They have immense potential in addressing brain drain, infrastructure deficits, and incentivizing FDI and global/regional engagements. In addition, they can address social issues in health and education, develop human capital, empower budding entrepreneurs, contribute to gender inclusivity in ICTs, and counter the colonial rhetoric of an impoverished continent. However, they are accompanied by many limitations and challenges associated with inequality in urban tech cities, conflict with governments, and competition among hubs. Similarly, they are also grappling with the nuances of technological romanticization and determinism, the 'identity crisis' and economic realities of existing at the axis of a business for social good, and finally, the dangers of tokenizing women and other minorities in the attempt to be performatively diverse over being inclusive.

In addition to difficulties in measuring the success of tech hubs, some questions remain on governance and infrastructure resilience, related to free speech and exchange online, effective public digital services ad regulations, and basic infrastructures such as internet connectivity mobile networks, and electricity supply. Nonetheless, tech hubs in Africa have momentum and are a technology that predominantly centres people in a quintessentially African way. Therefore it is crucial to reject comparisons to Silicon Valley and other western frameworks. It is now up to budding African innovators and policymakers to grapple with the same thing King T'Challa and his cousin N'Jadaka confront in Wakanda, they're at the edge, do they return to the centre, or keep going further out?

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Appendix A: Archetypes of Hubs (De Beer et al. (2016))

	Company Hub	**Cluster Hub**	**Country Hub**
Features	Separate legal entity (for-profit or non-profit) able to enter agreements, accountable to investors/funders and stakeholders	Small geographical region (e.g., a neighbourhood, municipality, urban corridor) containing a high density of hubs, and supporting entities	Large geographic area with distinct political identity and/or several similarly governed sub-regions (e.g., a country, countries, or region)
Development	Unmet need identified and new entity created to satisfy void; driven by entrepreneurial individuals and/or investors	One company hub's success attracts others; member(s) of existing company hub create(s) a new hub in close proximity to original company hub; association/partnership (formal or informal) between separate company hubs	Government policymaking as a leader (to strategically develop strengths in a particular field, e.g. ICTs) or follower (to identify and capitalize on strengths)
Governance	Funders/investors, board, executives	Informal, community-led	Government officials
Factors for success	Sustainability, scalability, profitability	Hub-to-hub interaction and sharing of resources (e.g., physical spaces, Internet access, human resources, venture capital)	Regulatory framework; government policies; educated/skilled workforce; business environment; incentives for private sector development; IT
Kenyan examples	iHub	Ngong Road	Kenya