

Nkontwana, Phumlani; Stam, Erik

Working Paper

Entrepreneurial Ecosystems for the Africa we want

U.S.E. Working Papers Series, No. 23-05

Provided in Cooperation with:

Utrecht University School of Economics (U.S.E.), Utrecht University

Suggested Citation: Nkontwana, Phumlani; Stam, Erik (2023) : Entrepreneurial Ecosystems for the Africa we want, U.S.E. Working Papers Series, No. 23-05, Utrecht University, Utrecht University School of Economics (U.S.E.), Utrecht

This Version is available at:

<https://hdl.handle.net/10419/323044>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Utrecht
University

School of Economics

Entrepreneurial Ecosystems for the Africa we want

Phumlani Nkонтвана, Erik Stam

U.S.E. Working Papers Series nr: 23-05

Utrecht University School of Economics (U.S.E.) is part of the faculty of Law, Economics and Governance at Utrecht University. The U.S.E. Research Institute focuses on high quality research in economics and business, with special attention to a multidisciplinary approach. In the working papers series the U.S.E. Research Institute publishes preliminary results of ongoing research for early dissemination, to enhance discussion with the academic community and with society at large.

The research findings reported in this paper are the result of the independent research of the author(s) and do not necessarily reflect the position of U.S.E. or Utrecht University in general.

U.S.E. Research Institute

Kriekenpitplein 21-22, 3584 EC Utrecht, The Netherlands
Tel: +31 30 253 9800, e-mail: use.ri@uu.nl
www.uu.nl/use/research

U.S.E. Research Institute
Working Paper Series 23-05
ISSN: 2666-8238

Entrepreneurial Ecosystems for the Africa we want

Phumlani Nkонтвана¹

Erik Stam^{1,2}

¹Allan Gray Centre for Africa Entrepreneurship (AGCAE), Stellenbosch University

²Utrecht University School of Economics, Utrecht University

June 2023

Abstract:

Many regions and countries aim to copy a Silicon Valley model of entrepreneurship-led development. We argue that this is misguided, in general, and in low income economies even more. We advocate an alternative approach that can be adapted to local context, with respect to both conditions and outcomes. We focus on a context with low incomes and massive population growth, with large cohorts of youngsters entering the economy: Africa. In this context there is a huge need for well-functioning entrepreneurial ecosystems to enable private sector development and more fundamentally to have the talents of a large new generation flourish and to tackle gigantic sustainable development challenges. We argue that for the entrepreneurial ecosystem approach to be useful for African economies it needs to be meaningful for the stakeholders involved, and that this can be achieved with locally-embedded narratives about the future of entrepreneurship in Africa. We analyze entrepreneurial ecosystem narratives that inform theory and policy practice of entrepreneurship-led development in Africa. Our argument is that for Africa, and other low income economy contexts as well, we need to embrace entrepreneurial ecosystem narratives that suit the local context and envisioned futures of the local stakeholders.

Keywords: Entrepreneurial ecosystems, entrepreneurship-led development, Africa, context, narratives, futuring

JEL classification: L26, O10, O55, P12, Q01

Comments welcomed to: pnkонтвана@sun.ac.za & e.stam@uu.nl

1 - Introduction

Entrepreneurial ecosystems have become a central feature of industrial and economic development policies around the globe. It has the promise of enabling productive entrepreneurship as a driver of economic development, focusing on the interdependent actors and factors that are governed in such a way that they enable productive entrepreneurship in particular territory (Stam, 2015; Stam & Van de Ven, 2021; Wurth et al. 2022). But, there is a tension in what entrepreneurial ecosystem development (policy) means in academic and practical terms. On the one hand there is an adoration of the Silicon Valley model of entrepreneurship (Audretsch, 2021), with a plethora of Silicon Somewheres and ABC Valleys (Stam, 2023). On the other hand, the entrepreneurial ecosystem approach has explicitly been developed to go beyond the Silicon Valley model of entrepreneurship (Isenberg, 2010; Feld, 2012; Stam, 2015; Wurth, Stam & Spigel, 2022). We critically analyze the assumptions behind the dominant Silicon Valley model of entrepreneurial ecosystems, which is obsessed by maximizing financial value with startups in the shortest possible period. We contrast this with a much needed view from outside the North American and European contexts in which most theorizing and empirical research on entrepreneurial ecosystems has taken place, and answer the recent call by Bruton et al. (2018) to develop an alternative to the dominance in academic research of the U.S. model of entrepreneurship. We focus on a context with low incomes and massive population growth, with large cohorts of youngsters entering the economy: Africa. In this context there is a huge need for well-functioning entrepreneurial ecosystems to enable private sector development and more fundamentally to have the talents of a large new generation flourish and to tackle gigantic sustainable development challenges. We argue that for the entrepreneurial ecosystem approach to be useful for African economies it needs to be meaningful for the stakeholders involved, and that this can be achieved with locally-embedded narratives about the future of entrepreneurship in Africa.

The objective of this paper is to analyze entrepreneurial ecosystem narratives that inform theory and policy practice of entrepreneurship-led sustainable development in Africa. Our argument is that for Africa, and other low income economy contexts as well, we need to embrace entrepreneurial ecosystem narratives that suit the local context and envisioned futures of the local stakeholders. This means that an alternative to the dominant Silicon Valley model of entrepreneurial ecosystems has to be created.

We have selected three African economies as research context: all three have a rapidly growing population, but one of them has developed rather stable high quality institutions (Rwanda), the other two face substantial problems of low quality institutions, but have been able to act as regional economic centers for East and West Africa, respectively Kenya and Ghana. In each of these economies a key entrepreneurial support organization (ESO) – an entrepreneurship hub - has been used as a point of entry for selecting in total 100 stakeholders of entrepreneurial ecosystems in these economies, to construct narratives about good and bad futures of the national entrepreneurial ecosystems. This also answers the recent call by Bergman & McMullen (2022) for scholars to deepen their relationships with ESOs, as an opportunity for advancing entrepreneurship research.

The key question of this paper is what an African model of entrepreneurship-led sustainable development can be. We use the entrepreneurial ecosystem approach as a lens and focus on four sub questions in the context of Africa:

1. To what extent are the public and private sector seen as drivers of entrepreneurial ecosystems?
2. To what extent are entrepreneurial support organizations targeting individual entrepreneurs or the institutional foundations of entrepreneurial ecosystems? [leadership role within /of the ecosystem?!]
3. What are the characteristics of successful entrepreneurs?
4. What are the envisioned ideal and worst case scenarios of entrepreneurial ecosystem development?

This paper is structured as follows. We first discuss the related literature on entrepreneurial ecosystems, including the role of the public and private sector, and entrepreneurial support organizations. We explicitly debate the dominance of the Silicon Valley model of entrepreneurial ecosystems, and the need for alternative models that do justice to other types of local contexts, in particular African contexts. This will lead us to a discussion of the societal outcomes beyond the narrow economic model that dominates the entrepreneurial ecosystem approach. In this we will conceptualize entrepreneurship-led sustainable development, that is: entrepreneurship that contributes to sustainable development, illustrated with the role of entrepreneurship in achieving the sustainable development goals in Africa. Next we will present the research design of the study. This will be followed with the results of our empirical analyses, answering our research questions. We will end with a discussion of our findings and implications and opportunities for further research.

2 – Entrepreneurial ecosystems

2.1 Origins in practice

The concept of entrepreneurial ecosystems has gained enormous popularity within research, policy, and practitioner fields over the last decade. This contemporary popularity can be traced to several sources: Feld's (2012) book *Startup Communities* and Isenberg's (2010) work in the *Harvard Business Review*. The idea of entrepreneurial ecosystems was quickly adopted by governments and non-governmental organizations such as the United Nations (UNCTAD, 2010), the World Economic Forum (Foster et al., 2013), the OECD (Mason & Brown, 2014), the European Commission (European Commission, 2014), the Kauffman Foundation (Bell-Masterson & Stangler, 2015), and the World Bank (Mulas, Minges & Applebaum, 2015), and commercial organizations including StartupGenome (StartupGenome, 2012) and StartupBlink (StartupBlink, 2014). This policy excitement led to a situation where research is led by policy rather than policy being guided by rigorous academic research (Stam, 2015; Stam & Bosma, 2015; Stam & Spigel, 2018).

This does not mean that entrepreneurial ecosystem research per se is led by policy.

Entrepreneurial ecosystem research stands on the shoulders of giants, in particular the regional development literature and the strategy literature (Acs et al., 2017; Malecki, 2018). Both lineages share common roots in ecological systems thinking, providing insights into the interdependence of actors in a particular community to create new value. But studies of both regional development and strategic management have largely ignored the role of entrepreneurs in new value creation, and the entrepreneurial ecosystem provides a fresh perspective to take into

account entrepreneurship as an output of the system, but also the role of entrepreneurs within the system.

These origins in both policy and entrepreneurial practice and also different academic literatures provide an excellent opportunity to further develop the entrepreneurial ecosystem approach as a transdisciplinary research program (Pohl & Hadorn, 2007; Pohl, Truffer & Hirsch Hadorn, 2017), involving multiple academic disciplines and explicit interaction with practice (“engaged scholarship”, Van de Ven, 2007) (see Wurth, Stam & Spigel, 2022).

2.2 Silicon Valley model

The Silicon Valley model has become dominant in entrepreneurial ecosystem thinking and practice. Three key elements of this Silicon model are 1) Venture Capital, 2) radical technological innovation, and 3) rapid business growth in financial terms (Audretsch, 2021). It is driven by financial value creation. This is both important on the input side and the output side. For example, on the output (and even outcome) side, the “value” of an entrepreneurial ecosystem is measured by the financial valuation (on paper) of its “startups” (Kuckertz, Scheu & Davidsson, 2023). On the input side, the prevalence of venture capitalists and the size of venture capital investments are seen as key indicators of the strength of an entrepreneurial ecosystem (Stokoe et al., 2016; WeeTracker, 2018a).

Rapid business growth in financial terms driven by radical technological innovation is seen as the key output of the system: a fast paced process of idea development to prototyping, to product-market fit and scaling, and ultimately product-market (or platform) dominance. The faster the process, and the larger the financial valuation of the venture the better. This assumes not only the prevalence of venture capital supply, but also the prevalence of world class science and technology (abundant in Silicon Valley), and new ventures that are investor ready, ready absorb and “burn” millions of dollars of investment. The private sector, investors and other service providers (incubators, accelerators, legal services etc.), is central in the entrepreneurial ecosystem. The public sector plays several roles as well (providing the physical infrastructure and investing in science and education), but is a follower, not a leader.

2.3 Need for context specific models of entrepreneurship-led development

A dominant narrative behind ideal entrepreneurial ecosystems is that a region must produce local businesses that scale (Aldrich & Ruef, 2018). In this narrative, the speed it takes for a region to produce scaling businesses is an important measure of success (Audretsch, 2021). Ecosystems therefore prioritize specific forms of innovations, industries and related infrastructure in a race to quickly grow new businesses into desirable revenue growth levels and sizes.

The narrative behind growth levels and sizes is often internationally benchmarked with infamous analogies and animated jargon such as “ponies/centaurus”, “dinosaurs”, “unicorns/narwhals”, “decacorns/pegasus” or “gazelles” (Hena Husain, 2019). The confluence of speed and growth has led to scholars and practitioners viewing entrepreneurship ecosystems from international and digital perspectives. This confluence often leads to designing entrepreneurial ecosystem approaches that do not take longer time dimensions arguably needed in low-income economies because of their fragility and institutional voids (Cao & Shi, 2021). This is because specific forms of innovations such as digital businesses tend to scale quicker with a vibrant support of so called

“tech-hubs” and international funding community making up the growing digital innovation ecosystems (Sussan & Acs, 2017; WeeTracker, 2018a,b; Afrilabs & Briter Bridges, 2019). Even though digital entrepreneurs and related entrepreneurial ecosystems are not umbrella descriptors but sub-ecosystem of the broader local entrepreneurship ecosystem in a region, their perspectives have become dominant and pervasive, consequentially contributing to local entrepreneurial ecosystems largely being viewed from outside-in lenses (Welter et al., 2017). The pervasive growth-orientated and international narrative is about how many US dollars did a particular region raise in a given year? Of the funded startups, how many are unicorns? What is the tech portfolio of the investments made? How many months does it take on average to raise startup finance in a particular region? Which international funding group has a bigger portfolio? Etc.

This international and animated narrative of speed and growth in financial value is best captured by the infamous analogy of entrepreneurship ecosystems as “racetracks” where local entrepreneurs are “jockeys” racing to win startup finance for scaling internationally (Kaplan, Sensoy & StrÖmberg, 2009). In this analogy, the type of business they choose to compete with is a “horse” (Mitteness, Baucus & Sudek, 2012; Harrison & Mason, 2017). The more digital this horse is, the better (Sussan & Acs, 2017). This narrative and words “jockey”, “racetrack” and “horse” often decouple business outcomes from socio-environmental impact and illustrate the divide between short-term monetary outcomes and long-term sustainable development goals (SDGs); especially SDGs 9, 10, 11 and 12. Apart from being reductionist, this narrative is also thin on the time dimension and political economy spatial dynamics that hold the entrepreneurial potential of the “jockey”, “horse” and “racetrack”.

While international and digital perspectives in understanding entrepreneurial ecosystems can be useful, they need to be moderated by emerging local narratives and inspired by local practices (Bruton et al. 2022). This is as important in other economies as it is for low-income economies. Yet, few empirical studies have explored narrative evolution in low-income economies and how its confluence with the time dimension can help moderate the pro-economic goal of promoting industry, innovation or infrastructure (SDG 9) against the social and environmental outcomes of reduced inequalities (SDG 10), sustainable cities and communities (SDG 11) or responsible consumption and production (SDG 12) (Wurth, Stam & Spigel, 2022). In other words, few entrepreneurial ecosystem empirical studies have explored how locals feel, think, perceive, experience or interact with entrepreneurship as a social phenomenon in a region.

To the extent that entrepreneurial ecosystems are normative and political (Malecki, 2018), measuring how they succeed or thrive must reflect spatial configurations in support of local progress. Further, entrepreneurial ecosystems are arguably a journey of ecosystem collaboration, not a race. To achieve relevant spatial configurations, scholarship can benefit from harvesting local stories that teach us about how locals view and interact with entrepreneurship as a practice and how those narratives offer alternative directionalities or sensibilities to help construct new success measures and pathways (cf. Bruton et al. 2018 . It follows that a useful question explored in this paper was what a locally embedded narrative about the future of entrepreneurial ecosystems in Africa can be, by exploring stories of local stakeholders and how their lived experiences contribute to alternative measures of policy effectiveness and narrative evolution that can inspire both business success and sustainable local impact? Enabling entrepreneurship for an Africa that is wanted by its citizens. Dominant entrepreneurial ecosystem perspectives and narratives lead to

dominant practices which inform which indicators are used to measure success. The reductionist jockey, horse and racetrack analogy from the dominant growth and speed narrative offers very little about the macro-economic environment and time dimension needed to make these three ingredients orchestrate for local entrepreneurs to not only win but also champion SDGs.

The literature on entrepreneurial ecosystems can help provide useful worldviews about how to embrace spatial configurations and local development agendas, in particular by entrepreneurship support organizations. The literature on entrepreneurial ecosystems was therefore explored in order to understand how entrepreneurship support organizations can reconfigure their support to achieve vertical and horizontal linkages with other stakeholders in ways that achieve sustainable development. This is important to understand empirically as business growth alone is not enough to deal with the systemic challenges of development (Gough & Langevang, 2017).

In the following sections we review literature on development theory (section 2.4) and entrepreneurial ecosystems (section 2.5) in order to deconstruct the limitations of traditional perspectives on entrepreneurship and reconstruct an alternative narrative for entrepreneurship-led sustainable development in low income economies. The purpose of section 2.4 is to reflect on development theory that would inform a conceptual framework for ‘entrepreneurship-led sustainable development’ to further provide the reader with an appropriate worldview emphasizing the importance of a development perspective in entrepreneurship. We compare development as ‘technological advancement’ with development as ‘governance processes’ and development as an ‘outcome’. These three theoretical aspects highlight, among other things, conceptual differences that help to discern an appropriate concept of development that practitioners may use in order to translate the promise of entrepreneurship into sustainable impacts in Africa.

2.4 Entrepreneurship-led Sustainable Development

2.4.1 Development as technological advancement

Development has traditionally been understood as forces of change associated with significant waves of technological advancement, often instigated in the Western economies. This view of development as structural change, driven by technological changes finds its roots in Schumpeterian theories of economic development (Schumpeter, 1934: 1942) and its Neo-Schumpeterian extensions (Freeman & Soete, 1974; Perez, 2010). This technological perspective has led to a reductionist notion of development as a process of ‘catching up’ with industrially advanced countries (Mkandawire, 2011; Palan, 2013). However, despite unparalleled levels of accompanying acceleration in economic growth, this orthodox perspective of development is problematic because it fails to address why the big technological revolution waves create economic growth that is accompanied by extreme income inequalities, poverty and environmental damage (Fioramonti, 2013; Steffen et al., 2015).

2.4.2 Development as governance

However, if one views development as improved governance mediating diverse activities that inspire unity and diversity of human action in the process of structuring and recreating patterns in the social world order (Preston, 2010), then development implies the importance of governance in the processes of social engagements (Offe, 2009; Ostrom 1990). Governance

means processes that in many cases involve managing never-ending contestations and negotiations between those in power and those affected by it. Some scholars suggest we understand these processes of social engagements through three metatheoretical levels of adaptive complex systems, namely micro, meso and macro (Swilling, Musango & Wakeford, 2016). This means governing constated engagements in development through all societal, private-sector institutional and policy lenses simultaneously and without privileging one level over another.

The technological development and governance perspectives suggest development involves input activities injected into the economy in order to achieve some desired local outcomes that address societal and environment needs. These inputs involve investments in science and technology and efforts to align the interests of stakeholders involved with new or adapted forms of governance. Development as a grand discourse which is associated with input activities and related governance processes, regards these as means to desired social change, as is emphasized in the next subsection.

2.4.3 Development as outcomes

Conceptualized in this way, development is therefore seen as an intentional outcome from development as a technological advancement and development as governance processes. In this study, development is therefore seen as dynamic and dialogic processes of creating pathways to a just, equitable and sustainable social change (Swilling & Annecke, 2012) in ways that are experimental, non-extractive and within the planet's capacity (Van den Bergh & Kallis, 2012). Furthermore, we do not perceive these dynamic and dialogic processes of development in an orthodox economic sense that assumes private sector-led economic growth. Instead, we see development as freedom (Sen, 1990) within planetary boundaries (Meadows et al, 1972), so that future generations can also flourish (Brundtlandt, 1987). In this way, development projects as input should inspire sustainable development outcomes, as projects degenerate and regenerate appropriately over time (Wahl, 2016).

In the next section we explore the literature on entrepreneurial ecosystems which we later use to construct entrepreneurship-led sustainable development by connecting it to the development discussion above. We use the origins of entrepreneurial ecosystems from business strategy and regional development approaches to further strengthen our human agency argument for harvesting local narratives as a way to connect pro-economic and pro-social ambitions of Africa with pro-environmental sustainability transitions needed to achieve SDGs. We then situate the entrepreneurial ecosystems discourse against the state, market and human agency forces in attempt to reimagine the role of ESOs as moderating meso-level development institutions to create bridges between the triad of pro-economic, pro-social and pro-environmental Africa goals well-articulated in African Union's continental agenda 2063 (African Union Commission (AUC), 2015).

2.5 Ecosystems for entrepreneurship-led sustainable development

The key ingredient of a transdisciplinary entrepreneurial ecosystem research program is an entrepreneurial ecosystem model that is abstract and valid enough from a scientific point of view, and comprehensive and actionable enough from a practitioners point of view. A generic model that satisfies these criteria, has been developed in a series of academic publications (Stam,

2015; Leendertse, Schrijvers & Stam, 2021; Stam & Van de Ven, 2021; Wurth, Stam & Spigel, 2022), and is represented in Figure 1. It includes the key elements needed for productive entrepreneurship to flourish, and to realize sustainable development. These key elements are derived from hundreds of studies into entrepreneurship and economic development around the globe (primarily from the European and North-American context, reflecting “Western” dominance of scientific production). The elements also include the science and technology investments (mainly in the “knowledge” element) that dominate the development as technological advancement approach, and the efforts to align stakeholder interests in “formal institutions”, “networks” and “leadership” that are key in the development as governance approach. The development as outcomes approach is mainly reflected in the sustainable development outcome, which can also feedback in the entrepreneurial ecosystem elements, triggering virtuous cycles of development. These elements reflect functions that need to be present for enabling productive entrepreneurship. These functions can be fulfilled with all kind of mixes of public and private sector involvement.

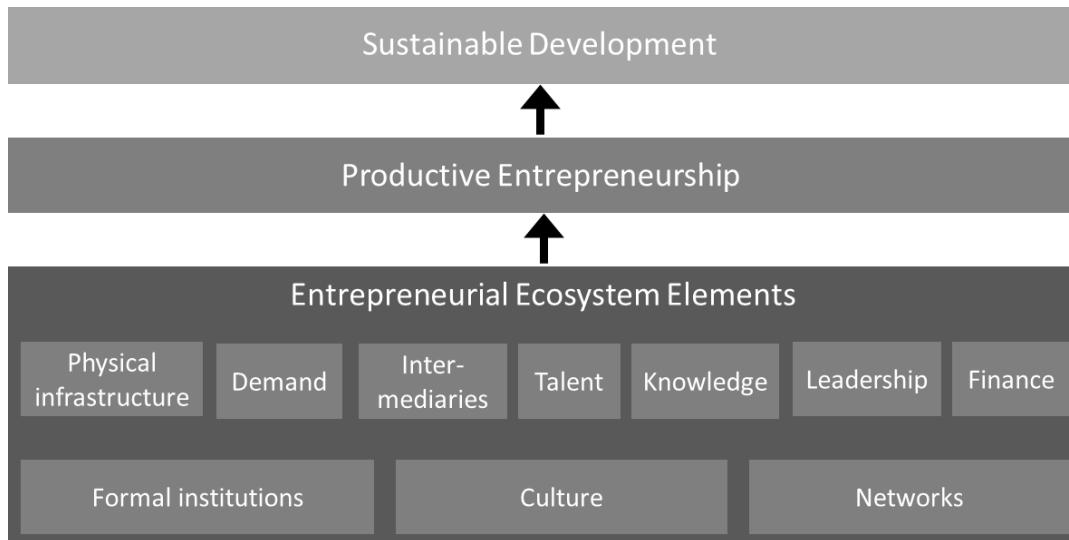


Figure 1. Entrepreneurial ecosystem model (source: adapted from Wurth et al. 2022)

The entrepreneurial ecosystem concept emanated from dual fields of origin in the literature on business strategy and regional economic development (Acs et al. 2017; Malecki, 2018). Given this dual historical origin from two separate fields, Stam (2015) and Brown & Mason (2017) have critically highlighted the theoretical and application limitations of entrepreneurial ecosystems following their rapid adoption and integration into policy in an attempt to delineate main components of the concept. Their critical review provides an original contribution that addresses definitional limitations, measurement issues and broader policy implications. At the same time, this historical origin highlights a healthy balance we all need to be reminded of, that entrepreneurial ecosystems are fundamentally about both economic outcomes (growth-orientated business strategies) and local political agendas (local economic development) that can only be understood through deep embedded enquiry from local narratives characterizing a region or country (Van de Ven, 2007; Park, 2017). A contextual way to understand and measure entrepreneurial ecosystems is by embracing the plurality of these two lineages; one about business strategies to grow revenues in service of self-interest of entrepreneurs and financiers

and other one about using the fruits of resultant economic rents in service of humanity and planets. This plurality of narratives embraces the complexification of what sustainable local economic development means and the integration of unfolding narratives along a sensible time dimension based on prevailing social contracts. To achieve this, harvesting stories is a key component of understanding prevailing social contracts about what a sensible set of impact indicators and appropriate time frame are to achieve the dual missions.

Building on this foundational basis, one can argue that if entrepreneurship is to achieve sustainable development outcomes, scholars would need to first go beyond the theory behind business strategies for scaling and expand their conceptual understanding through other relevant interdisciplinary development approaches. This way of conceptualizing entrepreneurial ecosystems is related to emerging alternative views of related literature in line with sustainable development.

Acknowledging theoretical limitations of foundational economic theories holding entrepreneurial ecosystems as the basis for self-interested or reductionist approaches is helpful to make sense of entrepreneur support practices by entrepreneurial support organizations in low-income economies. If the foundational theories behind entrepreneurial ecosystems are in and of themselves individualistic, it is not inconceivable that practitioners employing the theories would also be individualistically oriented. As such, recognizing the importance of the ever-changing unfolding narratives among local entrepreneurial ecosystem stakeholders is key in negotiating what success should be in low-income economies.

Regarding development as sustainable progress, policymakers behind entrepreneurship promotion imply there is a causal relationship between entrepreneurship and development – in some cases with an underlying assumption that entrepreneurship leads to development. These tacit assumptions have resulted in many seeing entrepreneurship as a viable strategy for addressing chronic development problems such as youth unemployment, poverty and inequality (Akinyoade, Dietz & Uche, 2017; Gough & Langevang, 2017).

The murky relationship between entrepreneurial ecosystems and development has been complicated by scholarly gaps in disaggregating entrepreneurship as a complex social phenomenon. This disaggregation can help to highlight the policy insights needed to successfully grow the activity in differentiated environments or business lifecycle; and without it, public policymakers and practitioners risk making erroneous implementation assumptions, arguably explaining mass failure rates and poor uptake (McMullen, Wood & Kier, 2016).

Entrepreneurship has also not led to development, because conventional promotion efforts employ decontextualized linear ESO approaches leading to new young firms (or start-ups) that in many instances do not produce the consistent and significant growth that proponents of entrepreneurship argue is a necessary condition for development to occur (Isenberg & Onyemah, 2016). While business growth is desirable to an end, entrepreneurship for growth can concurrently lead to destructive and unproductive economic activities without the desired development effects. This is because entrepreneurship for growth promotes a progressive business mindset that goes beyond survivalist aspirations, but without necessarily steering new innovations or fetching the future of industry that achieves sustainable development. For these reasons, Baumol (1990) argued that promotion efforts should be about the formation of

productive entrepreneurship, a type of growing ventures driven by genuine innovations and not rent-seeking or free-riding through extracting value from existing innovations.

Productive entrepreneurship can even be seen in a mission-orientated form, when it is not only driven by market forces but also by new governance approaches driven by state-led mission-orientated development finance institutions (DFIs) and civil society in some peer-to-peer fashion in order to steer market innovations in line with sustainable development. Accordingly, entrepreneurship cannot be seen only through micro lenses with the individual entrepreneur as a unit of scholarly analysis or practice, but should equally be seen through institutional meso-analytical lenses, while at the same time assessing the macro political economy strength of policy signaling not only to de-risk follow-on investments through patient capital, but also to drive responsible entrepreneurial norms and values from the ground.

3 – Research design

3.1 Transdisciplinary Research

The study objectives were addressed through exploring 100 stories of local ecosystem stakeholders in Ghana, Kenya and Rwanda in order to make sense of lived realities of ESOs efforts toward momentum and maturity entrepreneurial ecosystems in low-income economies. This was conducted through a transdisciplinary research (TDR) methodology that aimed to integrate scientific and societal knowledge in exploring entrepreneurial ecosystems in the African economies of Kenya, Ghana and Rwanda. This means both academic and non-academic literature were reviewed with the aim of undertaking a meta-analysis of the concepts and strategies applied to study and operationalize entrepreneurial ecosystems in Africa. This was followed by engaging scientific and social actors (policymakers, the funding community, enterprise support organizations and development practitioners) in a participatory mapping of the approaches and practices used to promote entrepreneurship in low-income economies.

The research project drew on the extensive networks of local social actors such as the African Entrepreneurship Collective (trading as Inkomoko), AfriLabs, Nairobi Design Institute (NDI), African Union Commission (AUC), Ashesi University Incubator (AVI) and Allan & Gill Gray Philanthropy Africa (AGGP). These development institutions have a continental presence in many African countries including Kenya, Rwanda and Ghana and provide a gateway for academics and relevant stakeholders. In this way, a conceptual understanding of entrepreneurial ecosystem practices was grounded in the lived experiences of local actors involved in African scholarship and practice.

The rationale behind using TDR methodology was to enhance partnerships that can advance African scholarship and advocacy on entrepreneurship-led development, especially towards the realization of sustainable development goals 9, 10, 11 and 12 of the UN's Agenda 2030 (Osborn, Cutter & Ullah, 2015). TDR thus uses implementation challenges to anchor the rationale for social change, so that projects bridge implementation knowledge and social co-learning processes between stakeholders by using experimental pilot projects and the elimination of global 'best practice' for organizing structures as well as practices that do not work in African settings (Moser, 2016). TDR empirical studies suggest the methodology and associated processes are nonlinear but iterative and may differ for each project. Regeer & Bunders (2009), Lang et al. (2012) and Mauser

et al. (2013) propose five broad phases in following a TDR methodology. These involve problem framing; stakeholder engagement (co-design) as framing and reframing of the inquiry; co-production of new knowledge; dissemination of results as bringing results to fruition; and inspiring action.

3.2 Narrative research

To complement the TDR methodology, the study followed a narrative-based action research (NAR) method using the SenseMaker® online data collection tool. SenseMaker® also follows roughly a similar process, logics and principles as TDR with iterative non-linear stages and steps. These stages involve co-design and preparation, narrative-based data collection, collective sense-making (returning stories to stakeholders), documentation of pathway possibilities and finally implementation. The study employed SenseMaker® (SM), a narrative-based method and tool that facilitates online data collection based on people's many different and lived experiences of a particular problem situation (Van der Merwe et al., 2019). SenseMaker® draws upon anthropology, complexity theory and neuroscience to create a narrative-based research method that enables the capture and analysis of a large quantity of stories in order to understand complex change (Girl Hub 2014). It is a form of meta-analysis of qualitative data that bridges the gap between case studies and large-sample survey data. The approach offers a methodological breakthrough for recognizing patterns and trends in perceptions, emotions, behaviors and relationships. SenseMaker® was developed by Cognitive Edge to provide "near real-time" mapping of individual opinions, attitudes, perceptions and motivations that allow for both adaptive project management and knowledge generation for effective organizational change and policy formation (Cognitive Edge, 2019). According to the developers, the sensemaking method draws on self-signified micro-narratives to understand the evolutionary potential of the present in order to provide stimulus to those behaviors that are beneficial and to modify those that are unfavorable. A self-signified micro-narrative is a short personal story that a respondent tells as an answer to a prompting question – a question related to the issue being analyzed. The story is then categorized by the respondents themselves by locating their story within triangles (or other shapes or sliding scales) consisting of broad variables (for example, in relation to entrepreneurship, finance, policy and mentorship/coaching).

Gathering many of these micro-narratives and running them through the SenseMaker® software enables the creation of a map of clusters of common narratives. Through the examination of these clusters, an insight can be gained into the specific attitudes, perceptions or motivations concerning the question being analyzed (IUCN, 2020). Most importantly, the process of collective reasoning and learning through stories can detect "weak signals" (small clusters or outliers) and allows for wider and deeper scanning of these specific narratives to identify whether there are underlying potentials that need to be scaled or mainstreamed, e.g., financial inclusion innovations for assetless and first-time African entrepreneurs (Cheveldave, 2015).

This tool thus allows for both an examination of dominant behaviors and emerging trends. Based on the analysis of the clusters, organizations are not only able to assess the quantitative data, but also the qualitative data through a direct sampling of the narratives. This can be useful in aiding decision-making in complex working environments. Table 1 below provides a brief overview of the phases, stages and processes involved in this study's research design, methodology and method respectively.

TD Phases	SenseMaker® Stages	Process Details	Target Respondents/ (Institutional Actor)	Strategy/Instrument
<p>Goal and problem framing (Co-design)</p> <p>Stakeholder engagements</p> <p>Co-production of new knowledge</p> <p>Dissemination of results</p> <p>Inspiring Action</p>	<p>Co-design and Preparation</p> <p>Narrative/Data Collection</p> <p>Returning Stories & Collective Sensemaking.</p> <p>Documentation of pathway possibilities</p> <p>Implementation</p>	<ul style="list-style-type: none"> Co designing the signification framework. Decide on sampling strategy. Operational plan for data (story) collection. Design the SenseMaker® Collector application. Training enumerators (co researchers). Decide on capturing strategies (formal / informal social networks;gatekeepers). <ul style="list-style-type: none"> Decide on capturing methods (audio, paper, online, interviews, iPads,Smart phones). Decide on ways of collection (indirect questions, text, anecdote circles, journaling, naïve interviewing etc.). Doing field work. <ul style="list-style-type: none"> Using software for detecting and visualizing emerging narrative patterns. Returning stories to story tellers and do joint sense making. <ul style="list-style-type: none"> Discuss and develop social change strategies. Process reflection. Exploration of pathway possibilities. Policy recommendations. <ul style="list-style-type: none"> Co design & implement small scale safe to fail social change experiments Amplify what works, dampen what does not work Conduct on going monitoring & evaluation 	<p>Hub managers, financiers, coaches, mentors and local entrepreneurs.</p> <p>Hub managers, financiers, coaches, mentors, local entrepreneurs, policymakers, trainers and community citizens.</p> <p>Hub managers, financiers, coaches, mentors, local entrepreneurs, policymakers, trainers and community citizens.</p> <p>Hub managers, financiers, coaches, mentors, local entrepreneurs, policymakers, trainers and community citizens.</p> <p>(Afrilabs). (African Union). (Allan & Gill Gray Philanthropy). (Ashesi University) (Inkomoko). (Nairobi Design Institute). (Digital Opportunity Trust). (National & local governments)</p>	<p>Phone calls, emails, WhatsApp messaging and online video calls.</p> <p>SenseMaker® Collector Online Tool.</p> <p>SenseMaker® Analyst Tool.</p> <p>Online Webinars.</p> <p>PhD Dissertation, Written Articles, Blogging.</p> <p>Online Webinars. Fundraising for more context-specific African research. Produce case studies</p>

Table 1. Summary of the research design, methodology and method (Source: Authors, 2023)

Narrative-based action research is fundamentally a futuring method. Futuring involves the deliberate design of small-scale social experiments as a way of fetching the future people desire. Adopting the idea of small-scale experiments is powerful because it challenges the passive notion that the future happens to us. While there are things we cannot know upfront or predict, we can indeed design and test some social ideas and isolate lessons that can help us walk to the future differently (Halpern & Mason, 2015). At the very least experimentation may help challenge existing frameworks making claims about the future in ways that are negative or unsustainable for all of us. By coupling carefully designed social experiments with a deep understanding of path dependencies of our past in the present, we can anticipate the resources and ways of becoming we ought to have and be; and in doing so walk our imperfect path to the future (Snowden, 2005; Poli, 2010a,b; Snowden et al., 2020). At least in this way, we do not merely wake up to the future but are consciously failing forward and stumbling upon useful key arsenal that can or will be part of the future (Miller, Poli & Rossel, 2018).

Another useful way of thinking of futuring as a sensemaking method is to see it as teleological in that one looks back at the present normally from some or other normative or idealistic perspective (what ought to be) against what is incrementally possible to inspire the evolutionary potential of the present (what is possible in or under the current conditions) and coming up with ways and means of moving away from the current conditions if found to be unjust and/or unsustainable (Campbell & Cowan, 2016; Swilling, Pieterse & Hajer, 2018). However, the directionality of this 'moving away from' can be in different directions: at times it can be forwards, other times

backwards or sideways (Oomen, Hoffman & Hager, 2022). How this happens in the practice depends on the context or conditions, including peoples' sense of their power and agency to bring about social change (Mangnus et al., 2021).

3.3 Thematic analysis

We used thematic analysis (TA) to identify, analyze and report patterns (themes) within the ideal and worst-case qualitative data scenarios. TA is a widely used analytical method for minimally and systematically organizing and interpreting qualitative datasets (Friese, Soratto & Pires, 2018). TA differs from content analysis (CA) in that the latter assumes the texts (messages) are the predetermined phenomena to be studied, with codes developed upfront (a priori), whereas TA is "a way of seeing" and "making sense out of seemingly unrelated material" with codes emerging, *a posteriori*, in the process of "immersion" (Neuendorf, 2018: 212–213). According to Vaismoradi, Jones, Turunen & Snelgrove (2016: 101) a theme is "an underlying meaning implicitly discovered at the interpretative level and elements of subjective understandings of participants, used to as an implicit attribute, descriptor, element, concept or topic that organizes a group of repeating ideas and enables researchers to answer the study question." Whereas, coding as applied in this entrepreneurship study, is a process to reduce data into organized participant perspectives based on negative, positive or indifference comments about a phenomenon experience in a particular context (Vaismoradi et al., 2016: 103). To conduct TA we used a general framework of steps involving compiling, disassembling, reassembling, interpreting, and concluding as is outlined by Castleberry & Nolen (2018). We used a general framework of steps involving compiling, disassembling, reassembling, interpreting, and concluding to conduct thematic analysis as is outlined by Castleberry & Nolen (2018). To compile the raw data, we jotted down key words in each respondent's response and visualized them into a Pareto Chart (See Figure 8). We then created an Excel table and organized them into a single column as a set up to disassemble them into text codes. To disassemble the data, we used a Microsoft Excel function known as CODE i.e., $f(x) = \text{CODE}(\text{Column Text})$. This generated codes one could reassemble into emerging themes. To reassemble coded text, we mapped and contextualized each code into an emerging category theme that signaled something important about the data in line with the research question.

3.4 Respondent selection

The study generated data from three African hubs situated in the cities of Accra (Ghana), Nairobi (Kenya) and Kigali (Rwanda): Ashesi University Incubator (AVI), Nairobi Design Institute (NDI), and Inkomoko, respectively. Outside these three research sites, the researchers also observed pertinent broader continental themes, issues and opportunities affecting hubs from continued engagements with AfriLabs. AfriLabs is an independent development practitioner institution, based in the capital city of Nigeria, Abuja. It exists to facilitate transnational knowledge sharing of practice, as well as the collaboration of hubs across the continent to better promote African innovation and entrepreneurship. With an Africa-wide entrepreneurship network of over 400 technology and innovation hubs from 52 African countries, AfriLabs convenes about a quarter of hubs on the continent. The choice of the three countries was in part inspired by contrasting institutional quality and entrepreneurship success indicators. Ghana and Kenya are frequently rated amongst the best performing entrepreneurship ecosystems in Africa, but have low (Kenya) to moderate (Ghana) quality institutions. In contrast, Rwanda does not have high entrepreneurship outputs, but has one of highest quality institutions in Africa. Figure 2 shows a scatterplot with all African countries, with the control of corruption (World Bank 2020)

on the x-axis and the prevalence of high-growth firms (based on the Financial Times 2022 ranking) on the y-axis.

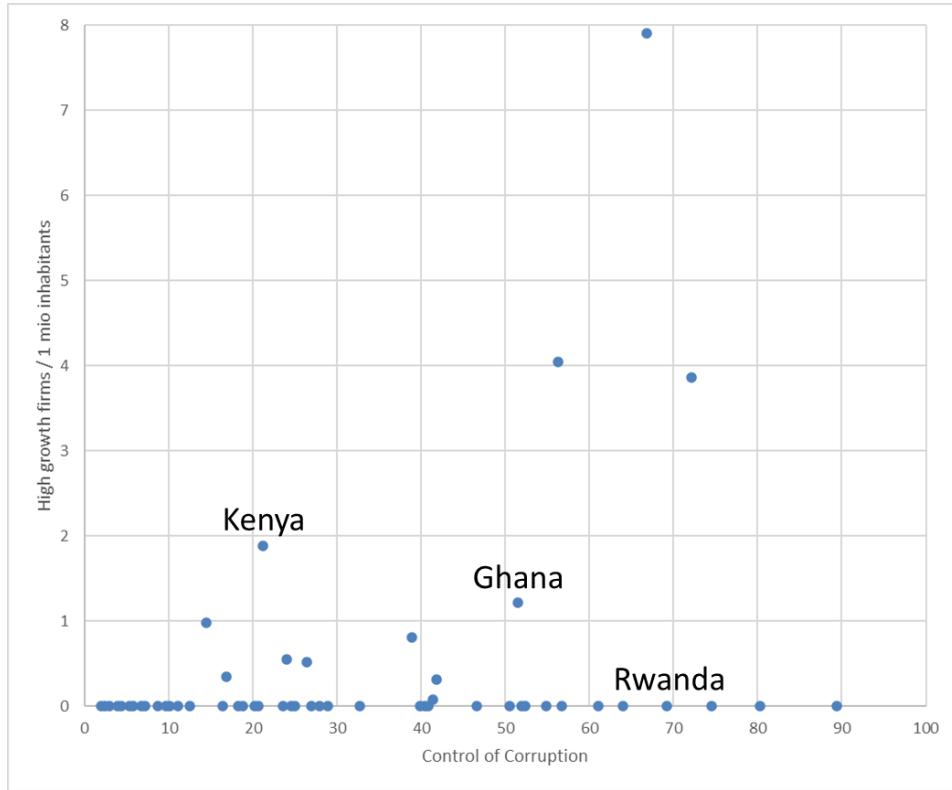


Figure 2. Control of corruption and prevalence of high growth firms in African countries

Our research design, methodology and related SenseMaker® approach sought to integrate both formal and informal voices into the study. Related to this is that three main hubs were the targeted laboratory sought to explore as a window into the broader local and national ecosystems. This explains why of the 100 responses, 2% were hub managers in the study as shown in Figure 3. Each of these hub managers was approached to not only participate in the study but to also invite relevant stakeholders (financiers, policymakers, trainers, etc.), including local community members and other professionals, all of whom are in principle affected directly or indirectly by entrepreneurship. This adds to the credibility of the empirical findings on the reality on the ground and whether in fact hubs play a significant role in the space. The alternative would have been to gather data in the classic way from only hub members and managers, risking issues that arise with self-reported data, but also risking a contribution to science without the voices of the community members and the ‘other’ groups that experience entrepreneurship outcomes perhaps in unrelated contexts but tangentially nevertheless.

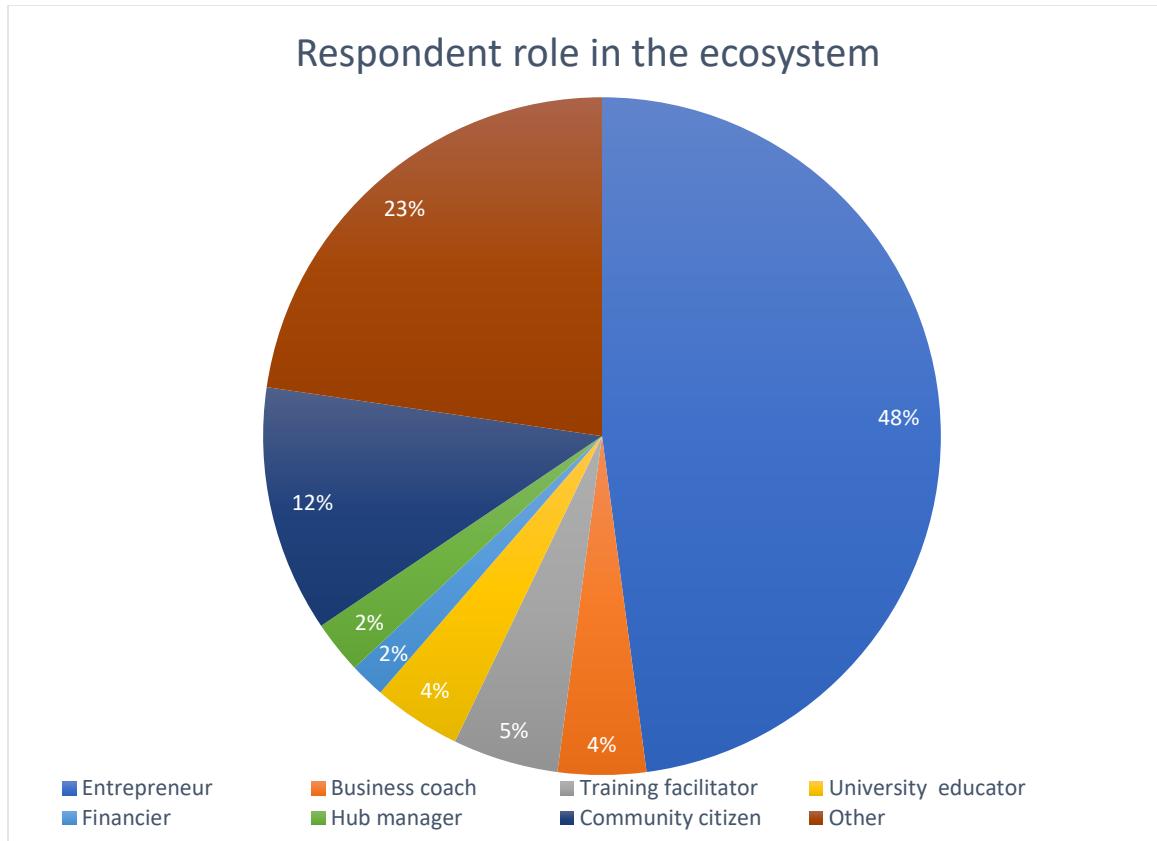


Figure 3. Respondent role in the ecosystem

The percentages in Figure 3 show that while the majority (48%) of the respondents were entrepreneurs, the second highest figure (23%) reported playing ‘other’ roles in the local ecosystem beyond ‘formalized’ contributions such as coaching, training, financing or managing a hub. These ‘other’ roles included university students, software developers, government employees, ecosystem builders, monitoring and evaluation advisors, community workers, IT personnel, humanitarian aid workers, researchers, stock and forest traders, development practitioners and other professionals. Additionally, another so-called “informal” stakeholder is a ‘community citizen’, who make up a significant 12% of the respondent total. Therefore, in balancing not only the number or diversity of respondent perspectives but also the combination of formal and informal stakeholders, the sample data makes the study both inter-and trans-disciplinary in nature, as indicated in the TDR methodology.

About a third of the respondents were born in another country then where they currently practice entrepreneurship. It highlights African entrepreneurship practitioners are not merely domiciled in the countries where they experience entrepreneurs, but also draw from the expertise, experiences and perspectives of other global contexts. This then makes for a useful respondent context to remember when interpreting results, because implicit within this table is arguably that stakeholder templates, tools, practices, principles or approaches may very well be shaped by multiple local African contexts.

4 - Empirical findings

In this section we will answer the four sub questions to answer the key question of this paper, what an African model of entrepreneurship-led sustainable development can be. We use the entrepreneurial ecosystem approach as a lens and focus on four sub questions in the context of Africa: the first two questions focus on the elements of entrepreneurial ecosystems, the third question at the entrepreneurial output, and the fourth questions focus on the envisioned outcomes (cf. Figure 1).

4.1 Public and private sector as drivers of entrepreneurial ecosystems

To what extent are the public and private sector seen as drivers of entrepreneurial ecosystems? Only 21% of the respondents perceived government as a lead steward in driving traction and momentum in African entrepreneurship, while a significant number (38%) suggested the private sector usually takes the lead in coordinating ecosystem activities and events in their contexts. The position of the median line suggests an overwhelming number of respondents have experienced private sector driving traction and momentum in their local ecosystem.

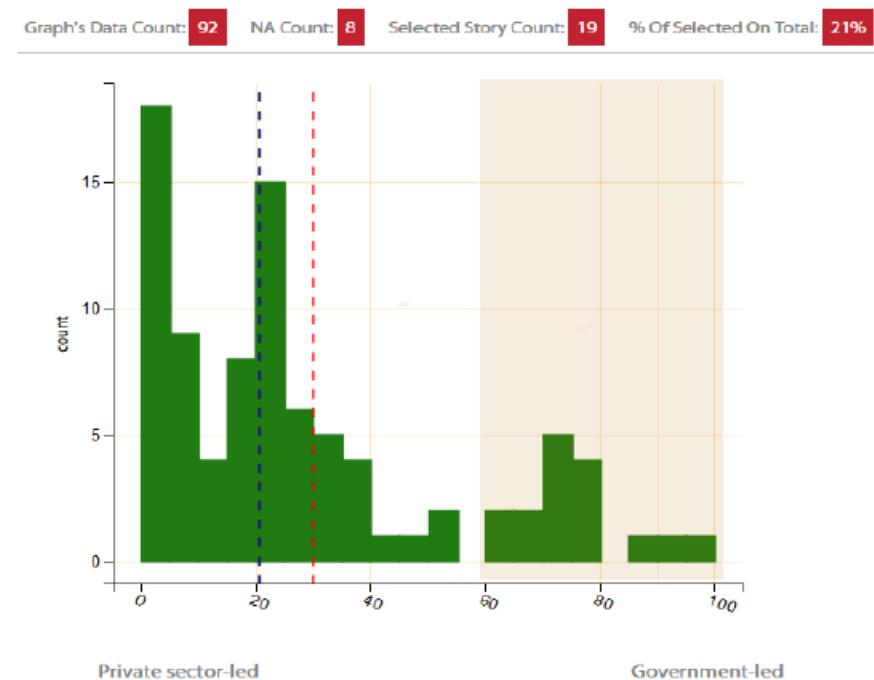


Figure 4. Leadership in entrepreneurial ecosystems (source: Authors, 2023)

Furthermore, Figure 5 shows that only 15% of the respondents' stories indicated the experience of government was that it was predominantly supportive. 31% and majority of the respondents' stories indicated that government was experienced as absent. Whereas 21% of the respondent stories had experienced a government that is supportive, absent and punitive all at the same time. This empirical diagram can be interpreted to highlight respondent experiences where government had been largely either absent or punitive.

Graph's Data Count: 93

NA Count: 7

Selected Story Count: 29

% Of Selected On Total: 31%

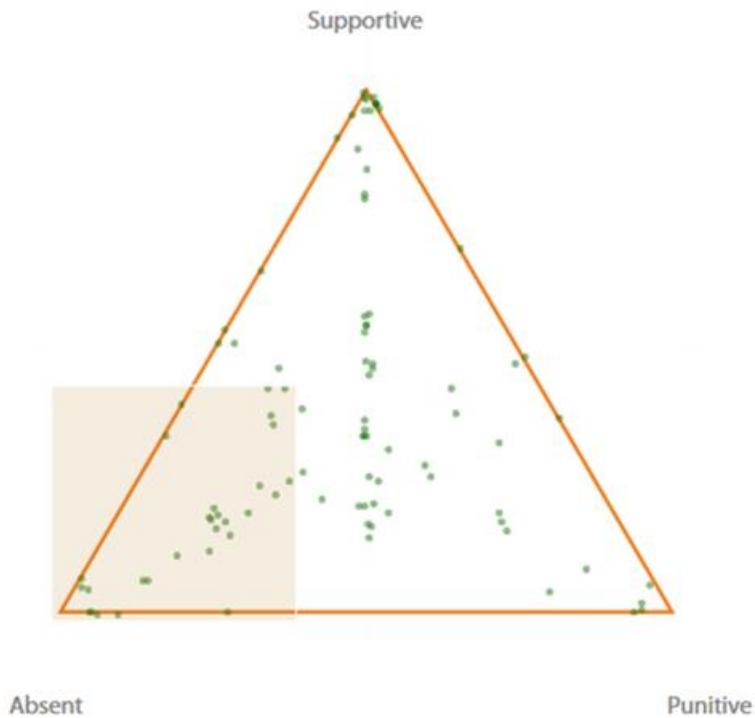


Figure 5. Experiences of government support in the entrepreneurship ecosystem (source: Authors, 2023)

4.2 Entrepreneurial ecosystem resource focus

To what extent are entrepreneurial support organizations targeting individual entrepreneurs or the institutional foundations of entrepreneurial ecosystems? Figure 6 suggests that entrepreneurial ecosystem support resources are largely dedicated to local entrepreneurs as opposed to supporting institutions. Only 14% of the respondents reported to have experienced ecosystem resources going to supporting institutions, while 26% experienced resources going exclusively to local entrepreneurs. The median indicated that on average local entrepreneurs are the focus of attention in growing entrepreneurship in the African continent.

Graph's Data Count: 94 NA Count: 6 Selected Story Count: 13 % Of Selected On Total: 14%

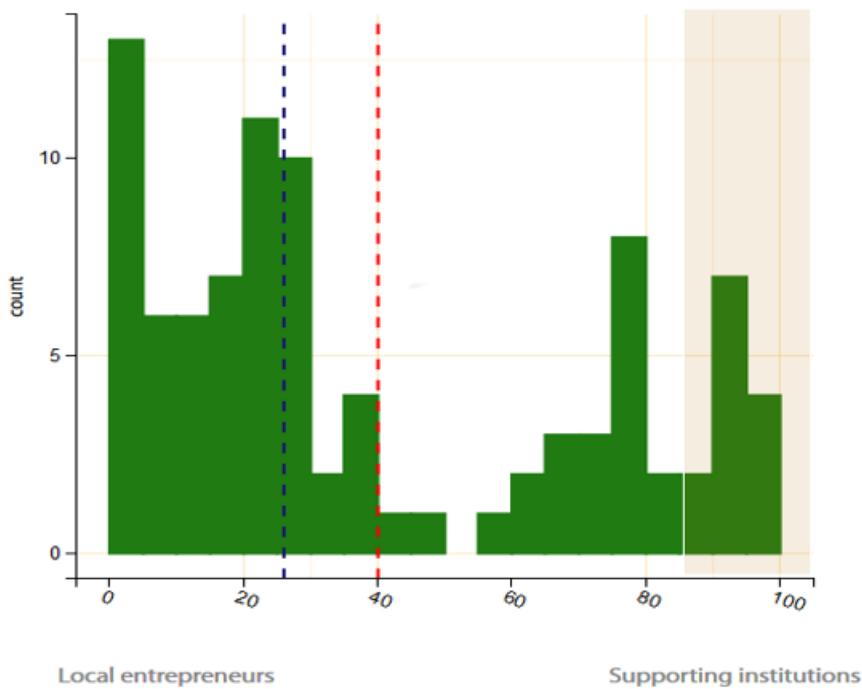


Figure 6. Entrepreneurial ecosystem resource focus (source: Authors, 2023)

This empirical finding suggested local entrepreneurial ecosystems continue to employ individualistic approaches that assume selecting promising individuals, training them along with providing the appropriate incentives, will grow entrepreneurship. While practitioners claim to follow 'ecosystem approaches', on the ground this lacks orchestration depth necessary to address structural issues, often experienced by local entrepreneurs as institutional barriers.

4.3 Characteristics of successful entrepreneurs

What are the characteristics of successful entrepreneurs? To complete the system knowledge generation the respondents were asked to share their experiences on career backgrounds of successful local entrepreneurs. The prompting statement to elicit their responses was: "In my experience, successful entrepreneurs in my area...". Entrepreneurial ecosystem respondents could choose one or a combination of options from 'are first-time entrepreneurs', 'have past business experience' or 'are former government employees'.

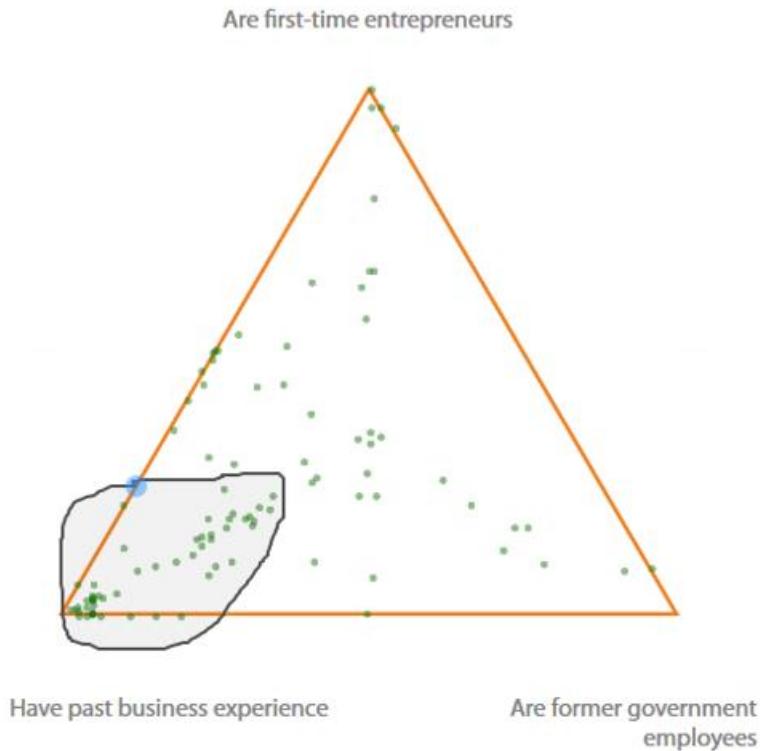


Figure 7. Characteristics of successful entrepreneurs (source: Authors, 2023)

Figure 7 shows that the majority (53%) of the respondent stories concentrated on local experiences of successful entrepreneurs having past business experience. While only 16% of respondent accounts of local experiences were about successful first-time entrepreneurs who have had some past business experiences with only a negligible number of respondent stories (8%) that shared experiences where successful entrepreneurs have had previous ties with local governments.

This finding is in line with empirical findings from other studies showing the importance of past business experience as one of the differentiating entrepreneurial competencies with high predictability for a successful entrepreneurship career (Mitchelmore & Rowley, 2010; Farrington, Venter & Louw, 2012; Lekoko, Rankhumise & Ras, 2012; Obschonka & Silbereisen, 2012; Rahman et al., 2015; Bacigalupo et al., 2016; Ploum et al., 2018). These studies rank past business experience high because of demonstrable evidence and history of risk-taking ability and action orientation that arguably leads to business success if combined with other secondary innate and trainable competencies.

4.4 Ideal and worst case scenarios of entrepreneurial ecosystem development

What are the envisioned ideal and worst case scenarios of entrepreneurial ecosystem development? To elicit envisioned futures, respondents were asked a futurist question, ‘Now imagine its 2030, what do you think would have been the main changes in entrepreneurship. Please share a separate *ideal* scenario and a *worst-case* scenario...’. This question was important in order to understand not only where transformation levers (thematic factors) might be but also to study how respondents imagined a desirable future. Given that respondents shared their ideal and worst-case scenario futures, the generated findings were much richer. We conducted thematic analysis (see section 3.3), and jotted down key words in each respondent’s response and visualized them into a Pareto Chart (See Figure 8).

After arriving at emerging category themes, we interpreted what emerged as the essence of the data into useful phenomenon findings about entrepreneurship in Africa. These findings were eventually categorized into 8 themes viz. access to finance and market, sense of control, enabling policy, dynamic ecology of support, formative context, enabling technology, scale and sustainable development outcomes. These category themes attempted to capture respondent’s realities in terms of their outlook of entrepreneurship by the year 2030.

While economic growth, which is associated with SDGs 8 and 9, was a feature among ideal scenarios, only 2% of the emerging story themes were clustered around stakeholder desires for their respective local ecosystems to be characterized by scaling economic growth. In fact, 23% and the highest clustered theme was around the directionality with which entrepreneurial ecosystem development would help the growing, investing and buying local, integrate environmental and social consideration in businesses, involve more youth in rural areas, create more economic opportunities for locals, drive public-private partnerships, ensure entrepreneurs from poor families are able to create and innovate a new business, promote the reversal of the poor perception of local entrepreneurs, contributes to a responsive entrepreneurship environment and contributes to the reduction of socio-economic barriers to entry in order to ultimately have welcoming entrepreneurship environments. To be specific, one respondent articulated this directionality as follows, “a worst-case scenario would be [that] entrepreneurship would be run by citizens from other countries instead of our own entrepreneurs who are instead locating to more developed countries to innovate their ideas there”. While another respondent offered “a worst-case scenario would be lack of market for locally produced products due to increased imports”.

Ideal entrepreneurial ecosystem scenarios were best captured by other stakeholder respondents who were calling for entrepreneurial ecosystems that were characterized by “more access to funding”, “business friendly interest on loans” and “less of government exorbitant taxes and licenses” respectively. Other respondents described their ideal entrepreneurial ecosystem conditions as those where “entrepreneurs are ...locally trained and financed” and “...at the center of societal development and local economy resilience.” Four additional respondents would ideally wish to see entrepreneurial ecosystems across Africa where “private sector will grow investment in startups”, “established businesses identify challenges and work with startups to solve them”, “government increased support to local entrepreneurs” and “in West Africa, each country would have developed an entrepreneurial ecosystem supportive of innovation and industry and ECOWAS is functional and takes advantage of these strong ecosystems to take leadership on the continent in agribusiness, light manufacturing, health tech.”

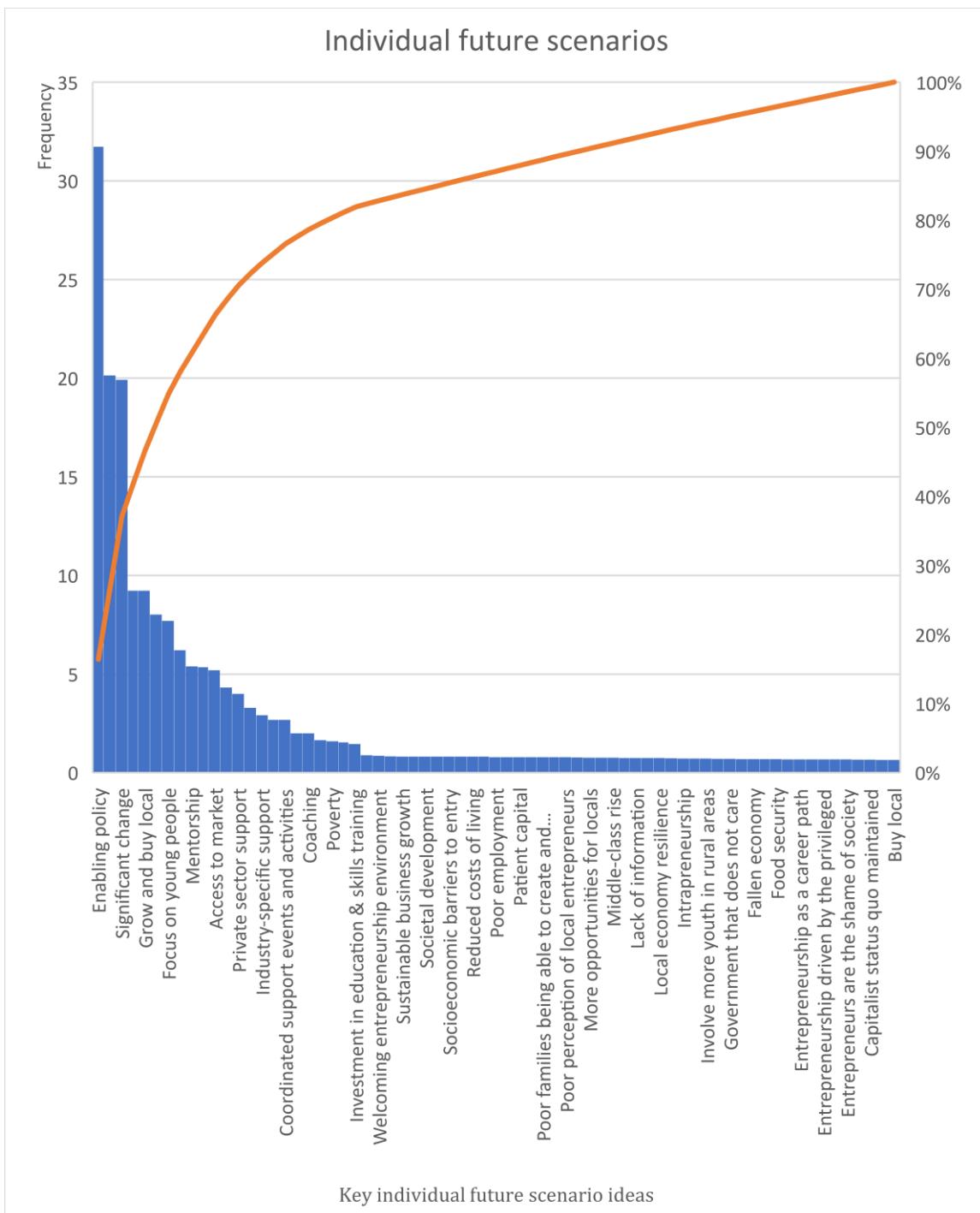


Figure 81. Ideal and worse case future scenarios about African entrepreneurship ecosystems (source: Authors, 2023)

As many as 12% of the emerging story themes were clustered around entrepreneurial ecosystem issues relating to formative context or barriers to entry. The worst-case scenario that highlighted the empirical findings is a scenario where entrepreneurial ecosystems contribute to no significant

social change. Specifically respondents highlighted local entrepreneurial ecosystems would be a failure if there was “no change as corruption keeps taking place and business opportunities are not fairly dispersed”, there is continued “limited creation employment opportunities due to versatility of individuals”, there would be “... higher rate of unchanged situation where people are still struggling and homeless”, labor markets were “without permanent jobs” or “there would be more socioeconomic barriers to become an entrepreneur”; among many other similar perspectives. Among other desired effects would be local entrepreneurial ecosystems that “...prove that people from poor family will be able to create and innovate a new business!”, where there is a “low rate of people who are not working” along with improved conditions where “barriers to entry will be non-existent.”

An additional 5% of respondent stories relating to this emerging theme highlighted the importance of entrepreneurial ecosystems needing to also produce social enterprises that achieved both business expansion and social change in line with SDGs as part of the core narrative. This made for another strong theme in line with sustainable development outcomes. One of the respondents captured an ideal scenario in line SDGs 9 and 12 as follows, “by 2030...production agriculture will have increased significantly, contributing to widespread increase in food security in Africa. That we will have access to technologically advanced methods of production that are affordable. These technological advancements will not just be confined to IT, but also to marketing, science, and engineering including post-harvest food preservation. That we will be able to process our produce and add value instead of simply selling raw materials. That we will have access to capital and mentors. That governments and policy makers create conducive ecosystems for entrepreneurs. That our markets will expand not just nationally but further into the region and continent.” Another respondent highlighted that a worst case scenario by 2030 would be entrepreneurial ecosystems that do not address “poverty and malnutrition” in society – which links to SDG 10, among others.

In summary, while some individual future scenarios reflected positive outlooks suggesting that they did not see problems with the current status quo; a significant number of respondents revealed dissatisfaction with lack of visible policy direction in Africa, along with poor support for local entrepreneurs. In particular the emergent findings highlighted that the environment under which local entrepreneurs operated was characterized with poor access to finance, uncoordinated support, unfavorable policy (specifically high taxes, penalties and stringent regulation), and privileging of foreign entrepreneurs with strong corporate networks and financial capital access. In turn, these issues create a negative formative context that undermines the scaling of new ventures driven by locals and therefore stifling of development outcomes.

5 – Conclusion

As a way of distilling the study findings into implications for practice and future studies, the reader is reminded that the purpose of making sense of the empirical findings was to explore locally embedded narratives about the future of entrepreneurial ecosystems in Africa, to inform an African model of entrepreneurship-led sustainable development. To effectively do that, it was important to first deconstruct the complex environment within which entrepreneurs in low-income economies operate. In addition, the investigation went further to garner areas of possible intervention levers that may signal strategic areas of intervening for the ideal results local

respondents reported they wanted to achieve: entrepreneurial ecosystems for the Africa we want. Put together, the tapestry of these generated knowledge forms allowed for more grounded constructivist institutional perspectives on African entrepreneurship used to derive recommendations from empirical findings.

For example, the study highlighted an ongoing dominant perspective that the private sector continues to be experienced as the lead force in coordinating ecosystem activities that drive entrepreneurship momentum and maturity in the continent. A significant number of respondents who suggested that government was absent or punitive, which could be interpreted to mean that the government's efforts are either experienced in a negative light or invisible at the level of local entrepreneurs. This resembles other findings about institutional voids in emerging economies (Cao & Shi, 2021; Sydow et al., 2022).

Yet, as a significant number of respondents reported, if successful local entrepreneurs on the African continent are essentially minority foreigners and members of the African diaspora with international education, past corporate experiences or upper-middle-class family backgrounds, one can deduce that private sector and international development institutional efforts have a bias towards mainly benefiting the same demographic groups. While it may be argued that local private sector and international enterprise support organizations are prudent in their highly selective and exclusionary minority support schemes, the findings of this study point to a non-inclusive directionality of development. If one couples this with the earlier argument that these private or international development support organizations may be using ineffectual individualistic approaches, the much-hyped development promise of entrepreneurship on the African continent may not be realized.

The pervasive nature of individualistic approaches employed by local and international enterprise support organizations in low-income economies was evidenced by emerging data in this study which indicated that respondents perceive resources to foster entrepreneurship in their context as mainly focused on individual entrepreneurs as opposed to institutions and the entrepreneurial ecosystem at large. This individualistic approach elevating individual entrepreneurs as opposed to support institutions arguably follows a 'self-selecting' logic of developed nations where education and other demographic factors can be left to chance because, for example, everyone has access to good education and opportunities at a minimum. More worrisome is that such an approach leaves entrepreneurial ecosystems without appropriate directionality, which places them at a risk of creating entrepreneurship pathways not in the service of local stakeholders and indigenous entrepreneurs.

Therefore, chief among other takeaways from this study is that, while entrepreneurial ecosystem support in the three study sites was reported as effectively fragmented and exclusionary at the level of individual entrepreneurs, an even more urgent matter is that the very hybrid ESOs set up to supplement state and private sector forces are at risk of not being effective nor sustainable without appropriate institution-building or institutional innovations to harness and intensify their hybrid mediating efforts. Examples of such institutional innovations could be developing contextual institutional arrangements for and between competing entrepreneurs on the ground, because too much competition – especially from large corporations – was reported as destructive (creating losers and artificial barriers to entry), while too little or no competition is also

undesirable (creating a static environment or a disincentive for innovating) from the perspective of African states looking to spur economic growth and inspire local firms to compete at international trade level. They may also include innovative ways of sharing working or winning practices in different African ecosystems. Such shared knowledge infrastructure could be used to knit together new coherent policies at African Union or continental level.

Additionally, to realize these ideas it may be important to distinguish between two different kinds of ESOs, namely those working closely with entrepreneurs on the ground and those that work with or co-ordinate other support institutions, i.e., those we can call “hubs of hubs”. These can exist to mediate the dominant existing and fragmented state and market forces which manifest and influence local entrepreneurs differently in different African settings. Specifically, hubs of hubs could be funded by both the private sector and the state as new forms of private-public partnerships or coalitions to help with institution-making for and between individual entrepreneurs. These institution-making initiatives could be better organized through hubs of hubs, as conventional ESOs slowly transition to the inclusive practices. One of their mandates could also be to capacitate conventional hubs to operate across different scales, which would help expedite the scaling of the relational macro-economic approach proposed in this study.

References

Acs, Z.J., Stam, E., Audretsch, D.B. & O'Connor, A. 2017. The lineages of the entrepreneurial ecosystem approach. *Small Business Economics*. 49(1):1–10. DOI: 10.1007/s11187-017-9864-8.

African Union Commission (AUC). 2015. *Agenda 2063: The Africa We Want*. Addis Ababa.

Afrilabs & Briter Bridges. 2019. *Building a Conducive Setting for Innovators To Thrive*. Available: <https://briterbridges.com/briterafrilabs2019>.

Akinyoade, A., Dietz, T. & Uche, C.U. 2017. *Entrepreneurship in Africa*. V. 15. Brill.

Aldrich, H.E. & Ruef, M. 2018. Unicorns, gazelles, and other distractions on the way to understanding real entrepreneurship in the United States. *Academy of Management Perspectives*. 32(4):458–472. DOI: 10.5465/amp.2017.0123.

Audretsch, D. 2012. Entrepreneurship research. *Management Decision*. 50(5):755–764. DOI: 10.1108/00251741211227384.

Audretsch, D.B. 2021. Have we oversold the Silicon Valley model of entrepreneurship? *Small Business Economics*. 56(2):849–856. DOI: 10.1007/s11187-019-00272-4.

Bacigalupo, M., Kampylis, P., Punie, Y. & Van den Brande, G. 2016. *EntreComp: The Entrepreneurship Competence Framework*. Luxembourg. DOI: 10.2791/593884.

Baumol, W.J. 1990. Entrepreneurship: Productive, Unproductive, and Destructive. *The Journal of Political Economy*. 98(5):893–921.

Bell-Masterson, J. & Stangler, D. 2015. Measuring an Entrepreneurial Ecosystem. *SSRN Electronic Journal*. (January, 1). DOI: 10.2139/ssrn.2580336.

Bergman, B. J., & McMullen, J. S. (2022). Helping entrepreneurs help themselves: A review and relational research agenda on entrepreneurial support organizations. *Entrepreneurship Theory and Practice*, 46(3), 688-728.

Bosma, N. & Kelley, D. 2019. *Global Entrepreneurship Monitor: 2018/2019 Global Report*. Available: <http://www.gemconsortium.org/>.

Brown, R. & Mason, C. 2017. Looking inside the spiky bits: a critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics*. 49(1):11–30.

DOI: 10.1007/s11187-017-9865-7.

Bruton, G. D., Zahra, S. A., & Cai, L. (2018). Examining entrepreneurship through indigenous lenses. *Entrepreneurship Theory and Practice*, 42(3), 351-361.

Campbell, K. & Cowan, R. 2016. *The Radical Incrementalist: How to Build Urban Society in 12 Lessons*. Massive Small, incorporating Urban Exchange.

Cao, Z. & Shi, X. 2021. A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies. *Small Business Economics*. 57(1):75–110. DOI: 10.1007/s11187-020-00326-y.

Castleberry, A. & Nolen, A. 2018. Thematic analysis of qualitative research data: Is it as easy as it sounds? *Currents in Pharmacy Teaching and Learning*. 10(6):807–815. DOI: 10.1016/j.cptl.2018.03.019.

Cheveldave, M. 2015. *Customer experiences as narrative landscapes*. Available: <https://www.cognitive-edge.com/blog/customer-experiences-as-narrative-landscapes/> [2020, August 20].

Cognitive Edge. 2019. PULSE – SENSE – EVOLVE: Introductory Handbook. Available: <https://pulsesenseevolve.com>.

European Commission. 2014. *Startup Europe: building the ecosystem*. Available: <https://digital-strategy.ec.europa.eu/en/policies/startup-europe> [2020, December 10].

Farrington, S.M., Venter, D.J.L. & Louw, M.J. 2012. Entrepreneurial intentions: Demographic perspectives of South African business students. *South African Journal of Business Management*. 43(3):41–49.

Feld, B. 2012. *Startup Communities: Building an Entrepreneurial Ecosystem in Your City*. (Startup revolution series). Wiley. Available: <https://books.google.co.za/books?id=tFNAYRBjsuIC>.

Fioramonti, L. 2013. *Gross Domestic Problem: The Politics Behind the World's Most Powerful Number*. London and New York City, New York: Zed Books Ltd.

Foster, G., Shimizu, C., Ciesinski, S., Davila, A., Hassan, S., Jia, N. & Morris, R. 2013. Entrepreneurial ecosystems around the globe and company growth dynamics. In *World Economic Forum*. V. 11. World Economic Forum Geneva, Switzerland. 1–36.

Freeman, C. & Soete, L. 1974. The economics of industrial. *Innovation*. 127–138.

Friese, S., Soratto, J. & Pires, D. 2018. Carrying out a computer-aided thematic content analysis with ATLAS.ti. *Max-Planck-Institut zur Erforschung multireligiöser und multiethnischer Gesellschaften*. 1–36. Available: [http://www.makedonika.org/whatsnew/Historical lessons of Macedonian multiculturalism.pdf](http://www.makedonika.org/whatsnew/Historical%20lessons%20of%20Macedonian%20multiculturalism.pdf).

Girl Hub. 2014. *Using Sensemaker® to understand girls' lives: Lessons learned*. Ethiopia and Rwanda. Available: <https://www.girlsnotbrides.org/resource-centre/using-sensemakerto-understand-girls-live-lessons-learnt-from-girls-hub/>.

Gough, K. V & Langevang, T. 2017. *Young Entrepreneurs in Sub-Saharan Africa*. London and New York City, New York: Routledge.

Halpern, D. & Mason, D. 2015. Radical Incrementalism. *Evaluation*. 21(2):143–149. DOI: 10.1177/1356389015578895.

Harrison, R.T. & Mason, C. 2017. Backing the horse or the jockey? Agency costs, information and the evaluation of risk by business angels. *International Review of Entrepreneurship*. 15(3):269–290.

Hena Husain. 2019. *From Unicorn Startups To High Growth Gazelles - Do You Know The Difference?* Available: <https://www.linkedin.com/pulse/from-unicorn-startups-high-growth-gazelles-hena-husain/>

growth-gazelles-do-you-know-hena-husain/ [2022, November 30].

Isenberg, D.J. 2010. How to start an entrepreneurial revolution. *Harvard Business Review*. 88(June):40–50.

Isenberg, D. & Onyemah, V. 2016. Fostering Scaleup Ecosystems for Regional Economic Growth (Innovations Case Narrative: Manizales-Mas and Scale Up Milwaukee). *Innovations: Technology, Governance, Globalization*. 11(1–2):60–79. DOI: 10.1162/inov_a_00248.

IUCN. 2020. *Making sense of community natural resource governance perceptions*. (26). Gland, Switzerland. Available: <https://www.iucn.org/news/forests/202004/making-sense-natural-resources-governance-through-community-perceptions-uganda>.

Kaplan, S.N., Sensoy, B.A. & StrÖmberg, P. 2009. Should investors bet on the jockey or the horse? Evidence from the evolution of firms from early business plans to public companies. *Journal of Finance*. 64(1):75–115. DOI: 10.1111/j.1540-6261.2008.01429.x.

Kuckertz, A., Scheu, M. & Davidsson, P. 2023. Chasing mythical creatures – A (not-so-sympathetic) critique of entrepreneurship’s obsession with unicorn startups. *Journal of Business Venturing Insights*. 19(November 2022). DOI: 10.1016/j.jbvi.2022.e00365.

Lang, D.J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., Swilling, M. & Thomas, C.J. 2012. Transdisciplinary research in sustainability science: Practice, principles, and challenges. *Sustainability Science*. 7(SUPPL. 1):25–43. DOI: 10.1007/s11625-011-0149-x.

Leendertse, J., Schrijvers, M. & Stam, E. 2021. Measure Twice, Cut Once: Entrepreneurial Ecosystem Metrics. *Research Policy*. 51(January 2020). DOI: 10.1016/j.respol.2021.104336.

Lekoko, M., Rankhumise, E.M. & Ras, P. 2012. The effectiveness of entrepreneurship education: What matters most? *African Journal of Business Management*. 6(51):12023–12032. DOI: 10.5897/ajbm12.001.

Malecki, E.J. 2018. Entrepreneurship and entrepreneurial ecosystems. *Geography Compass*. 12(3):1–21. DOI: 10.1111/gec3.12359.

Mangnus, A.C., Oomen, J., Vervoort, J.M. & Hajer, M.A. 2021. Futures literacy and the diversity of the future. *Futures*. 132:102793.

Mason, C. & Brown, R. 2014. *Entrepreneurial Ecosystems and Growth Orientated Entrepreneurship*. Paris. DOI: 10.4337/9781785364624.

Mauser, W., Klepper, G., Rice, M., Schmalzbauer, B.S., Hackmann, H., Leemans, R. & Moore, H. 2013. Transdisciplinary global change research: The co-creation of knowledge for sustainability. *Current Opinion in Environmental Sustainability*. 5(3–4):420–431. DOI: 10.1016/j.cosust.2013.07.001.

McMullen, J.S., Wood, M.S. & Kier, A.S. 2016. An embedded agency approach to entrepreneurship public policy: Managerial position and politics in new venture location decisions. *Academy of Management Perspectives*. 30(3):222–246. DOI: 10.5465/amp.2015.0139.

Merwe, S.E. Van Der, Biggs, R., Preiser, R., Cunningham, C., Snowden, D.J., Brien, K.O., Jenal, M., Vosloo, M., et al. 2019. Making Sense of Complexity: Using SenseMaker as a Research Tool. *Systems*. 7(25):1–19.

Miller, R., Poli, R. & Rossel, P. 2018. The discipline of anticipation: Foundations for futures literacy. *Transforming the Future: Anticipation in the 21st Century*. 51–65. DOI: 10.4324/9781351048002.

Mitchelmore, S. & Rowley, J. 2010. Entrepreneurial competencies: A literature review and development agenda. *International Journal of Entrepreneurial Behaviour & Research*. 16(2):92–111. DOI: 10.1108/13552551011026995.

Mitteness, C.R., Baucus, M.S. & Sudek, R. 2012. Horse vs. jockey? How stage of funding process and industry experience affect the evaluations of angel investors. *Venture Capital*. 14(4):241–267.

Mkandawire, T. 2011. Running while others walk: knowledge and the challenge of Africa's development. *Africa Development*. 36(2):1–36.

Moser, S.C. 2016. Can science on transformation transform science? Lessons from co-design. *Current Opinion in Environmental Sustainability*. 20:106–115. DOI: 10.1016/j.cosust.2016.10.007.

Mulas, V., Minges, M. & Applebaum, H. 2015. *Boosting tech innovation ecosystems in cities: A framework for growth and sustainability of urban tech innovation ecosystems*. Washington, DC: World Bank Group. Available: <https://openknowledge.worldbank.org/handle/10986/23029>.

Neuendorf, K.A. 2018. Advanced Research Methods for Applied Psychology: Design, Analysis and Reporting. In *Advanced Research Methods for Applied Psychology*. First ed. P. Brough, Ed. London and New York City, New York: Routledge. 211–223.

Obschonka, M. & Silbereisen, R.K. 2012. Entrepreneurship from a Developmental Science Perspective. *International Journal of Developmental Sciences*. 6(3–4):107–115. DOI: 10.3233/DEV-2012-12105.

Offe, C. 2009. Governance: An “Empty Signifier”? *Constellations*. 16(4):550–562. DOI: 10.1111/j.1467-8675.2009.00570.x.

Oomen, J., Hoffman, J. & Hager, M.A. 2022. Techniques of futuring: On how imagined futures become socially performative. *European Journal of Social Theory*. 25(2):252–270.

Osborn, D., Cutter, A. & Ullah, F. 2015. UNIVERSAL SUSTAINABLE DEVELOPMENT GOALS: Understanding the Transformational Challenge for Developed Countries. REPORT OF A STUDY BY STAKEHOLDER FORUM. (May):25.

Palan, R. 2013. *Global political economy: contemporary theories*. Routledge.

Park, W. 2017. *Abduction in Context: The Conjectural Dynamics of Scientific Reasoning*. (32). Daejeon: Springer International Publishing AG. DOI: 10.1007/978-3-319-48956-8.

Perez, C. 2010. Technological revolutions and techno-economic paradigms. *Cambridge journal of economics*. 34(1):185–202.

Ploum, L., Blok, V., Lans, T. & Omta, O. 2018. Toward a Validated Competence Framework for Sustainable Entrepreneurship. *Organization and Environment*. 31(2):113–132. DOI: 10.1177/1086026617697039.

Pohl, C. & Hadorn, G.H. 2007. *Principles for designing transdisciplinary research*. oekom Munich.

Pohl, C., Truffer, B. & Hirsch Hadorn, G. 2017. Addressing wicked problems through transdisciplinary research. *The Oxford handbook of interdisciplinarity*. 319:331.

Poli, R. 2010a. The many aspects of anticipation. *Foresight*. 12(3):7–17. DOI: 10.1108/14636681011049839.

Poli, R. 2010b. An introduction to the ontology of anticipation. *Futures*. 42(7):769–776. DOI: 10.1016/j.futures.2010.04.028.

Preston, P. 2010. *New Trends in Development Theory: essays in development and social theory*. V. 108. London and New York City, New York: Routledge.

Rahman, S.A., Azlan, A., Ahmad, N.H. & Taghizadeh, S.K. 2015. Supporting entrepreneurial business success at the base of pyramid through entrepreneurial competencies. *Management Decision*. 53(6):1203–1223.

Raworth, K. 2017. *Doughnut economics: Seven Ways to Think Like a 21st-Century Economist*. Hartford, Vermont: Chelsea Green Publishing.

Regeer, B.J. & Bunders, J.F.G. 2009. *Knowledge co-creation: Interaction between science and society - A transdisciplinary approach to complex societal issues*. (10e). Den Haag, Netherlands.

Schumpeter, J.A. 1934. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credits, Interest, and the Business Cycle*. Piscataway: Transaction Publishers.

Snowden, D. 2005. Strategy in the context of uncertainty. *Handbook of Business Strategy*. 6(1):47–54. DOI: 10.1108/08944310510556955.

Snowden, D., Turner, J.R., Blignaut, S., Greenberg, R. & Thurlow, N. 2020. *Cynefin - Weaving Sense-Making into the Fabric of Our World*. Cognitive Edge - The Cynefin Co.

Stam, E. 2015. Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique. *European Planning Studies*. 23(9):1759–1769. DOI: 10.1080/09654313.2015.1061484.

Stam, E. 2023. Entrepreneurial Ecosystems, Startup Communities and Entrepreneurship Cultures. *Regional Studies*. Available: <https://doi.org/10.1080/00343404.2023.2165286>.

Stam, E. & Bosma, N. 2015. Local policies for high-growth firms. *The Oxford handbook of local competitiveness*. 286–305.

Stam, E. & Spigel, B. 2018. Entrepreneurial Ecosystems. In *The SAGE Handbook of Small Business and Entrepreneurship*. V. November. Z. Blackburn, R., De Clercq, D., Heinonen, J. & Wang, Ed. London: SAGE Publishing. 407–422.

Stam, E. & Van de Ven, A. 2021. Entrepreneurial ecosystem elements. *Small Business Economics*. 56(2):809–832. DOI: 10.1007/s11187-019-00270-6.

StartupBlink. 2014. *The way we vision startupblink to change the startup ecosystem*. Available: <https://www.startupblink.com/blog/the-way-we-vision-startupblink-to-change-the-startup-ecosystem/> [2023, January 15].

Startup Genome. 2012. *Startup Ecosystem Report 2012*. San Francisco, CA: Startup Genome.

Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O. & Ludwig, C. 2015. The trajectory of the anthropocene: The great acceleration. *Anthropocene Review*. 2(1):81–98. DOI: 10.1177/2053019614564785.

Stokoe, G., Bunder, J., Kelso, D. & Essomé, M.K. 2016. *How private equity investors create value*. Available: <https://www.avca-africa.org/media/1435/1603-1881818-africa-pe-final.pdf>.

Sussan, F. & Acs, Z.J. 2017. The digital entrepreneurial ecosystem. *Small Business Economics*. 49(1):55–73. DOI: 10.1007/s11187-017-9867-5.

Swilling, M. & Annecke, E. 2012. *Just Transitions: Explorations of sustainability in an unfair world*. Cape Town, Tokyo, Paris and New York City, New York: UCT Press and United Nations University Press.

Swilling, M., Musango, J. & Wakeford, J. 2016. Developmental states and sustainability transitions: Prospects of a just Transition in South Africa. *Journal of Environmental Policy and Planning*. 18(5):650–672. DOI: 10.1080/1523908X.2015.1107716.

Swilling, M., Pieterse, E. & Hager, M. 2018. Futuring, Experimentation, and Transformative Urban Politics. *Handbook of Anticipation*. 1–28. DOI: 10.1007/978-3-319-31737-3_24-1.

Sydow, A., Cannatelli, B. L., Giudici, A., & Molteni, M. (2022). Entrepreneurial workaround

practices in severe institutional voids: Evidence from Kenya. *Entrepreneurship Theory and Practice*, 46(2), 331-367.

Transparency International. 2022. *Corruption Perceptions Index 2021*. Berlin, Germany. Available: www.transparency.org/cpi.

UNCTAD. 2010. Entrepreneurship education, innovation and capacity-building in developing countries. In *Investment, Enterprise and Development Commission Multi-year Expert Meeting on Enterprise Development Policies and Capacity-building*. Geneva: United Nations. 1–21. Available: https://unctad.org/system/files/official-document/ciimem1d9_en.pdf.

Vaismoradi, M., Jones, J., Turunen, H. & Snelgrove, S. 2016. Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*. 6(5):100–110. DOI: 10.5430/jnep.v6n5p100.

Van den Bergh, J.C.J.M. & Kallis, G. 2012. Growth, a-growth or degrowth to stay within planetary boundaries? *Journal of Economic Issues*. 46(4):909–919. DOI: 10.2753/JEI0021-3624460404.

Van de Ven, A.H. 2007. *Engaged scholarship: A guide for organizational and social research*. Oxford University Press New York.

Wahl, D.C. 2016. *Designing Regenerative Cultures*. Axminster, England: Triarchy Press.

WeeTracker. 2018a. *2018 Annual Report: Decoding Venture Investments in Africa*. Available: <https://weetracker.com/venture-capital-africa-2018-report/>.

WeeTracker. 2018b. *African Startup Funding Report - 2017*. Available: <https://weetracker.com/wee-dev/2018/01/02/african-startup-funding-report-2017/>.

Welter, F., Baker, T., Audretsch, D.B. & Gartner, W.B. 2017. Everyday Entrepreneurship—A Call for Entrepreneurship Research to Embrace Entrepreneurial Diversity. *Entrepreneurship: Theory and Practice*. 41(3):311–321. DOI: 10.1111/etap.12258.

World Bank Group. 2018. *Doing business 2018: Reforming to Create Jobs*. Washington DC. DOI: 10.1596/978-1-4648-0351-2.

Wurth, B., Stam, E. & Spigel, B. 2022. Toward an Entrepreneurial Ecosystem Research Program. *Entrepreneurship: Theory and Practice*. 46(3):729–778. DOI: 10.1177/1042258721998948.