Development Southern Africa

ISSN: 0376-835X (Print) 1470-3637 (Online) Journal homepage: www.tandfonline.com/journals/cdsa20

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To cite this article: Stacey-Leigh Joseph & Geci Karuri-Sebina (2025) Enabling inclusive economic eco-systems, Development Southern Africa, 42:2, 339-361, DOI: 10.1080/0376835X.2025.2474234

To link to this article: https://doi.org/10.1080/0376835X.2025.2474234

DEVELOPMENT SOUTHERN AFRICA
2025, VOL. 42, NO. 2, 339–361
https://doi.org/10.1080/0376835X.2025.2474234

Enabling inclusive economic eco-systems

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ABSTRACT
Responses to poverty and inequality have largely focused on social welfare and health expenditure. Using a qualitative, exploratory methodology which included a desktop literature review and key informant interviews, we looked at the potential for reducing inequality through a different lens: the enabling role local governments could play to achieve more equitable economic outcomes. We applied the Local Innovation and Production Systems (LIPS) framework from Brazil to examine local governments' role in driving inclusive economic development and innovation in Africa. We argue that local authorities, through their existing mandates, have the potential to make spaces more equitable and drive inclusive growth, thereby reducing poverty, unemployment and inequality. We reached this conclusion after investigating what potential exists for African cities to design and implement inclusive local economic development approaches; and how local actors can play an active role in positively influencing economic production and socio-economic equality.

ARTICLE HISTORY
Received 20 July 2023
Accepted 25 February 2025

KEYWORDS
Inclusive economic eco-systems; local government; cities; inequality; local innovation systems

1. Introduction

The importance of African countries' economies becoming far more innovation-driven to optimise their potential for growth and productivity has been punted for a number of years (Adesida & Karuri Sebina, 2013; GERA, 2017; SACN, 2017). Africa's urban population is expected to reach 1.7 billion by 2030, with 80% of the continent's residents expected to be living in cities (Leke & Signe, 2019). Its population is also the world's youngest and it has the highest rate of youth unemployment, particularly in urban areas (UNHabitat, 2018; Brookings, 2019). As with other parts of the world, Africa's cities are recognised as drivers of economic development because they have a high concentration of employment opportunities and skills, thereby improving people's access to employment and improved services (DCOG, 2016). Nawrot et al. (2018: 1) make the case that the potential of African cities as drivers of economic transformation is possible if they commit to and develop the ability to operate as dynamic innovation ecosystems rather than static administrative regions. In many instances cities already have the local responsibility for the provision of public goods like basic healthcare, water and

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sanitation, electricity, and public spaces like roads and parks. It is here where they have the potential to create an enabling environment for more innovations to occur which could have an impact on improving lives. In South Africa, for example, the municipal sphere has always been considered the best location for the devolution of key functions that will contribute towards redressing the unequal apartheid legacy which has its most vivid expression at local level (SACN, 2016).

Innovation is increasingly considered crucial for successful modern economies to develop, including in Africa (Muchie et al., 2003; Adesida & Karuri-Sebina, 2013) as it is necessary for competition, growth and employment (Schumpeter, 1934), as well as key to developing new ideas and adaptability (Rantisi, 2002). Industries are constantly changing and, beyond the need to innovate and rethink how production happens and how products are consumed, societal, climate and health changes have significant impacts on economies and their ability to remain resilient and competitive. All actors who create and consume products require innovation to contribute towards improving how things are done, their value for their intended audience, and increased overall profits and income for economic growth (Muchie et al., 2003).

It is in considering this nexus between city-led development (territorial development) and innovation-led development (economic theory) that the Local Innovation and Production Systems (LIPS) become of interest. This paper applies the LIPS conceptual and methodological framework to highlight its Global South relevance in a world where innovation is increasingly recognised as key to evolution and strategic development (Cassiolato et al., 2018). The LIPS framework highlights the relevance of different territorial scales of innovation systems and makes a particular case for the local level (Cassiolato et al., 2018). Using this framework, the paper looks at 3 African cities to make a case for the crucial role to be played by local governments in driving innovation for more inclusive and equitable outcomes, despite existing challenges.

2. Why innovation matters for African cities

Cities have remained the centres of development in modern economies because of their diverse nature, ability to attract people from different backgrounds, skills bases, experiences and ideas (Peter Hall, 1998; NUA, 2016). African cities are no exception (SACN, 2017; UN Habitat, 2018). The complexity of cities with their constant ebbs and flows require city governments to be constantly alert to change which may require new and updated infrastructure and services. Cities' abilities to be responsive determine the extent to which they can harness creativity and enable the necessary innovation. However, even though they are ideal territories for creativity, innovation is not guaranteed and many cities do not succeed in driving innovation (Johnson et al., 2011). A set of conditions needs to exist to create the potential for innovation that gives rise to an enabling ecosystem. Firstly, proximity is key. The location of various sets of actors determines the extent to which they can interact and draw from each other's respective knowledge and learnings. Secondly, there must be some realisation of the potential for innovation, and there must be development of knowledge and ideas to give rise to innovative activities (Johnson et al., 2011).

Most African cities are characterised by major challenges that include inadequate infrastructure and services provision; inadequate management; high levels of inequality among their growing populations; informality and vulnerability; and the devastating impacts of climate change. To be successful in realising their potential, cities must meet these challenges, while at the same time building competitive economies and encouraging investment (SACN, 2016). The diversity and variety found in African cities could propel them to become principal drivers of their economies. The potential in the informal sector, and the creativity that surrounds it, provides an opportunity for Africa's youthful urban population to take on the challenge – if supported and adequately enabled – to spearhead economic transformation and innovation, reaping the so-called demographic dividend (Bloom et al., 2003).

The Global Entrepreneurship Monitor (GEM) also makes the case for a close relationship between innovation and entrepreneurship (GERA, 2017). Recognising and supporting entrepreneurial activity may help to create opportunities for providing adequate housing, reduce youth unemployment, and stimulate creative energy that addresses day to day challenges (Karuri-Sebina, 2017). However, supporting entrepreneurs should not only be the state's responsibility. The private sector can also play a key role in bolstering various economic and livelihood strategies. Given that informal activities account for the largest share of most African economies and have become the norm (Muller, 2013), focusing on smaller, mostly informal entrepreneurs in developing countries can lead to an economic contribution and also address social issues that impact on people's day-to-day lives. The informal, entrepreneurial space is where new ideas and creativity emerge (Rantisi, 2002).

3. Applying the innovation lens

Innovation theorisation in the literature has tended to centre on technological advances in the global North (Lal and Shipp, 2013). However, the conversation has begun to shift towards developing nations (Muchie et al., 2003). This has been fuelled by the recognition that unless developing nations' economies are innovation-driven, they are unlikely to address key issues of social and economic development, inequality and poverty in the global South (Adesida & Karuri-Sebina, 2013). This section introduces key innovation system concepts used in this study.

3.1. National systems of innovation

Innovation cannot occur in a vacuum. It requires a systemic approach to facilitate learning and engagement amongst multiple and diverse actors (Lundvall, 1992). When innovation is the basis for a nation's competitive advantage, a national innovation system (NIS) is crucial (Lundvall, 1992; Nelson, 1993; Freeman, 1995). Many countries have adopted NIS frameworks, and in countries such as Germany and Japan this has played a significant role in transforming their economies (Lal & Shipp, 2013). It is understood that 'profiting from innovation requires the coordination of R&D, production and marketing … [and] industries in Germany, Japan and the United States have invested in creating value through knowledge assets, characterised by an increased focus on design, adoption of open innovation and implementing in existing clusters' (Lal & Shipp, 2013). These governments created centres of knowledge and special economic development and technology zones to leverage and enhance existing endowments (Lal & Shipp, 2013).

Wilson et al. (2020) highlight the increasing interest in the potential of the NIS to transform developing countries' economies. An NIS is based on its specific endowments and resources (Adesida & Karuri-Sebina, 2013). However, in developing contexts inclusion is also critically important. The role informal actors play, and those who are typically marginalised, becomes crucial.

NIS' are characterised broadly as being about the various actors, including public and private, their innovation activities, and the various relationships that facilitate knowledge and resource flows between them (Wilson et al., 2020). In developing countries, these systems are intended to contribute towards addressing their most urgent development needs, and economic development in particular.

While NIS' are seen as crucial for driving economic development, this is not a cookie-cutter exercise. It means different things for different countries and contexts. Lal and Shipp (2013) offer three context-determined elements that need to be considered:

(1) *How endowments give a country its comparative advantage*. This refers to the endowments that give a country its edge, which may include, for example, natural resources, culture or history. For countries that are poorer in natural resources, the endowment could even be an investment in technological industries.
(2) *How governments leverage their nation's endowments*. Which refers to when a country recognises how it might locate itself, aligned with what the endowments it has offer; how it understands the actors within its realm; and how it creates strategies for incentivising innovative activities and industries.
(3) *How the private sector leverage their national endowments*. Which speaks to how firms themselves are able to identify and drive innovation.

3.2. Innovation ecosystems

Systems of innovation enable networking, learning and collaboration – a prerequisite for innovation-driven economies. Rantisi (2002: 590) defines regional innovation systems as 'the set of economic, political and institutional relationships occurring in a given geographical area which generates a collective learning process leading to rapid diffusion of knowledge and best practice'. However, their enabling ecosystems, which present the necessary economic conditions and dynamics, need to be supported. They do not occur merely by virtue of proximity or location. Matos et al. (2018) highlight the importance of understanding the social, institutional and cultural context which informs and impacts a system of innovation's performance. Muller (2013) refers to this as 'the local conditions of production'. Included in his list of conditions are: a country's social and economic infrastructure, its state regulations, and its overall culture. Additional important considerations affecting ecosystems, such as institutional quality (Sharma et al., 2022) and the state's capabilities (Mazzucato et al., 2021), also affect innovation cultures, especially in developing contexts.

3.3. Local innovation and production systems (LIPS)

Several authors – particularly from the Global South – have noted gaps in the NIS literature and how this may apply to developing countries (Muchie et al., 2003; Kraemer-Mbula & Wamae, 2010; Wilson et al., 2020). For example, the NIS does not focus on entrepreneurs and small enterprises which require a different level of support, and which are the areas where many employment opportunities exist in developing countries. The LIPS framework allows for 'encompassing all types of production and innovation structures' and 'assumes that some kind of system always exists around every production activity, however fragmented and unstructured it may be' (Cassialato et al., 2018: 5). The framework also allows for spaces in which production takes place to be recognised. This makes way for seeing the local sphere as a space (territory) or level for driving innovative economic and development activities.

Figure 1 outlines how the global system interacts with the national innovation system and the local system, which has its own subsystem of interconnected activities and linkages, impacting what happens at the local level.

RedeSist's methodology to analyse LIPS can be summarised in terms of two main components:

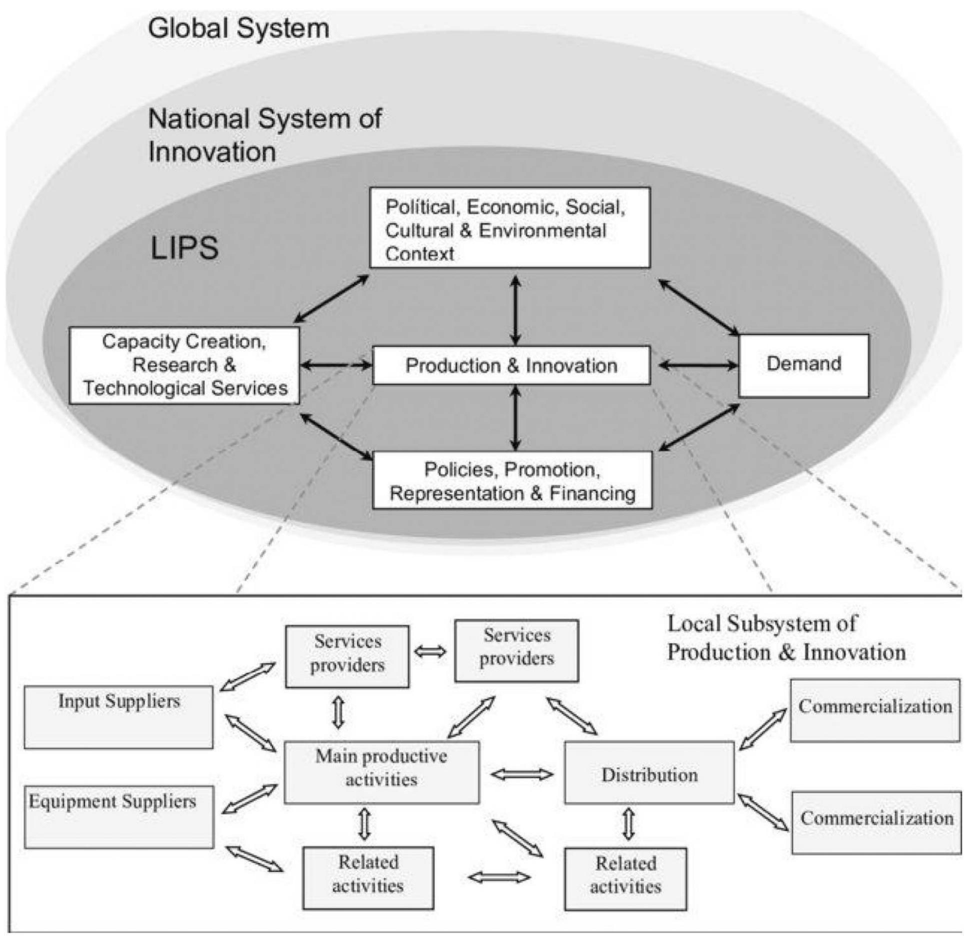

Figure 1. The LIPS and its subsystem of production and innovation; adapted from Matos et al., 2017. Source: Cassiolato et al., 2018.

(1) An articulation of *the LIPS territory*, which includes an understanding of the global geopolitical and power dimensions within which productive and innovative processes take place; the impact of institutional and legal frameworks; how production and competition are organised at a global and national scale, and their influence on local actors and LIPS development; and how knowledge flows across and between different regions and territories.
(2) Consideration of *existing endogenous structures and processes*, including how they influence: innovative activities and cultural dimensions to support innovation; capacity for learning, production and innovation; cooperation between local actors; the local environment, infrastructure and territory; and support for improving and driving innovation (Cassialato et al., 2018).

The framework affirms that enabling policy and infrastructure must exist to encourage, facilitate and support innovation and transformation. Knowledge and other transfers should also take place in a way that encourages innovation. The RedeSist LIPS framework helpfully breaks down these requirements to a local scale.

3.4. Deriving an analytical framework

We derived from LIPS an analytical framework for reviewing the experiences of African cities. We wanted to understand how the LIPS framework could be used to study innovation-driven economic activity and ecosystems, and the local government's role in facilitating these. Five main dimensions were determined.

4. Methodological approach

The main question was: 'How can local innovation and production systems in Africa contribute towards inclusive access, ownership and economic growth?' A qualitative approach was selected to enable a specific, insight-building – rather than generalisable – enquiry. This was considered appropriate given our intention to introduce a different perspective to the question of inclusive development which is typically looked at from a mainly macro perspective. The experimental application of the LIPS framework to explore this, and to examine the roles of local government in driving inclusive economic development and innovation in Africa, was deemed to require a combination of primary and secondary research.

The secondary research involved a literature review synthesising innovation, mainstream economics, and local-urban development literatures. We covered existing scholarly and grey literature, primarily focusing on three key themes: inclusive economic growth; national and local innovation systems; and local economic development and the role of local governments.

The primary research was based on case studies for which key informant interviews were conducted, guided by a structured questionnaire based upon the LIPS framework and its key components.

Three African cities were selected as the case studies: Accra, Ghana; Nairobi, Kenya; and Tshwane, South Africa. All have strong research and development concentrations. While not representative, or even necessarily comparable, we considered these cities to be a relevant purposive sampling for our project's exploratory purpose. All are stable capital cities, and are geographically dispersed in west, east and southern Africa. We identified respondents who could represent the local government authority, private sector and civil society, sometimes with informant roles overlapping. This resulted in eight respondents: two each from Tshwane and Accra, and four from Nairobi. The majority were a part of local government; with the rest from civil society sector and the private sector. We wanted to focus on municipal informants and obtain complementary non-government input from business or knowledge actors. Given the small sample and the complex, silo-structure of local governments, their views cannot be considered to be representative of their municipalities on the whole, or local governments across the continent for that matter – however, our purpose was to use them to test the framework and its usefulness.

The research was thus intended as a dipstick test for application of the LIPS framework in Africa, with the benefit of some initial comparative analyses to understand its application and types of findings in different contexts. Our interview tool focused on the five analytical domains that had been derived from the LIPS framework (Cassiolato et al., 2018) as outlined in Figure 2.

Specifically, we were interested in:

(1) **Governance**: We asked about the structure of the country's governance system and the local sphere's level of authority in managing the local economy.
(2) **Clustering or ecosystem development**: We wanted to understand whether close inter-firm communication, sociocultural structures and institutional environment could stimulate collective learning, continuous innovation and economic activity that benefitted everyone.
(3) **Infrastructure development and financial capacity**: We asked what role the local authority plays regarding its provision of infrastructure, and its ability to pay for infrastructure development.
(4) **Knowledge generation and research and development (R&D)**: We asked about activities in the area, the flow of information between different actors, and local authority's contribution towards economic activities or innovation.
(5) **Market conditions and the economy of the city**: We wanted to know about market conditions, the economy of the city, various actors' level of participation, and the ease of, and accessibility to, economic activities.

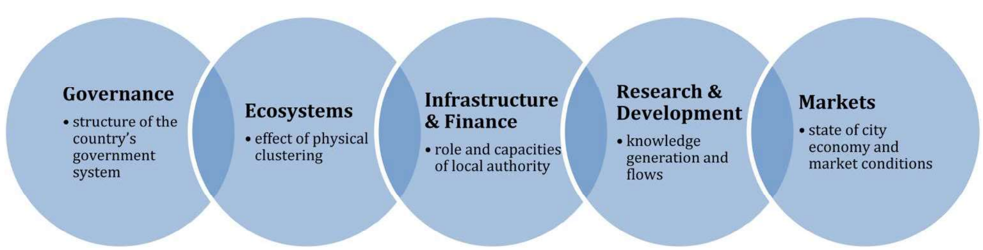

Figure 2. LIPS analytical dimensions. Source: Authors.

4.1. Appropriateness of the LIPS framework

We sought to indicatively apply the LIPS approach (which was developed for application in Latin America, specifically in Brazil) to the African context. It is useful to reflect briefly on the validity of doing this, in terms of relevance and contextual comparability. The researchers found that there are some strong similarities in the respective regional trajectories and contexts (Brazil: South Africa) that at least suggest that the contextual comparison is not incredible.

Firstly, African countries, like Latin American countries, suffered negative impacts of north-driven structural adjustment programmes of the 1980s and '90s. This included having extreme regional and spatial disparities that are generally comparable.

Secondly, in both contexts, the economic and innovation system focus has tended to ignore informal activities. In Brazil informality accounts for more than half of the occupied workforce; this is similar in scale to informality in many African countries.

Thirdly, the sectors that become important for local analysis are very similar. In Brazil, a decision was made to centre the LIPS research agenda on agriculture and services, 'namely family agriculture, essential public services, tourism and cultural activities, including small-scale and informal ones' (Cassialato et al., 2018). South Africa has a similar economic profile.

Fourthly, the concern about local government weakness seems to correspond in both contexts (Cassialato et al., 2018).

4.2. Profiling the three African city case studies

While the three selected cities were not chosen for comparability, it was useful to consider some basic characteristics about them to help understand and contextualise their relative responses. Figure 3 shows the estimated relative size of the three cities in relation to their national population and economy.

The countries' governance systems are outlined in Table 1. Comparative analysis shows that the cities are similar in some ways, such as relative population proportion, and constitutional shifts towards decentralised governance structures. They also have some variances, such as the comparatively large size of South Africa's national economy relative to the capital city economy.

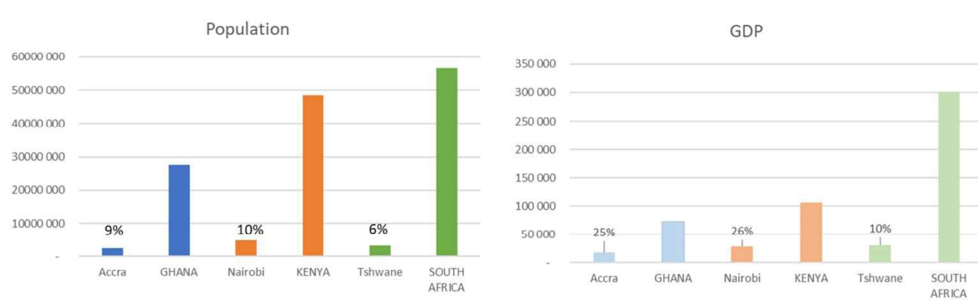

Figure 3. Estimated city and country size comparisons. Source: Authors.[1]

Table 1. A comparative look at governance systems.

	Accra, Ghana	Nairobi, Kenya	Tshwane, South Africa
Governance	Ghana has pursued legal and administrative decentralisation since the 1990s. Its current decentralised system includes national and regional levels of governance, with local level metropolitan, municipal and district assemblies. These district assemblies have town councils and specific issue-based committees.	Kenya is a unitary democracy. It adopted a devolved system of governance after the promulgation of a new constitution in 2010 which made constitutional provision for county governments who may by law appoint urban boards.	South Africa has a devolved three-tier system of governance: national, provincial and local.
Governance details	While the national government is considered responsible for most aspects affecting citizen life, the system of local government was introduced to engage much closer with citizens and create local structures. Ghana has a four-tiered system of sub-national government: Regions (16), Metropolitan, Municipal, and District Assemblies (216) with Sub-Metropolitan Districts, and Traditional Authorities.	Kenya implemented devolution in 2010 which set in place a two-tier system of government of 47 county governments which serve as semi-autonomous, or devolved local authorities – each with an elected assembly, governor and executive committee. Local authorities have their own cabinet and budgets which they receive from national to implement their county development plans. The decentralised system is intended to entrench localised implementation.	South Africa has a three-tier system of government: national, provincial (9) and local (with 3 levels – district (44), local (205) and metropolitan(8)). Local governments in South Africa receive a proportional share of revenue from national, and are also allowed to generate and collect their own revenue to implement local plans.
Legislative framework	The Local Governance Act (2016) provides the legislative framework, including specifying the funding, planning and regulating procedures at various levels.	County Governments Act 2012 and the Urban Areas and Cities Act 2011.	Key pieces of legislation govern how local government should function within the constitutional framework. For example, the Municipal Structures Act (117 of 1998) outlines the different municipalities in the country and their various categories. The Municipal Systems Act (32 of 2000) defines how local government should work, including its various roles and responsibilities.

Source: Authors.

4.3. Cities' perspectives

Overall respondents felt that their local authorities were not playing a significant or adequate role in economic development and driving economic inclusion. While all three countries have some level of devolution, respondents in Accra and Tshwane said that in reality local governments are seen as implementation agents of national policy, rather than strategic drivers and enablers of economic and social development. At the same time, local authorities themselves struggled to secure more influence and authority over economic and other interventions. A reason one respondent gave for this was the difficulty of persuading local authorities to play a more strategic role; meaning there is potentially a two-way problem where neither national nor local authorities see local government as a strategic driver of economic development.

4.4. Findings across the LIPS dimensions

We used the LIPS framework to get respondents' perspectives on the relevance, effectiveness, and implementation of the framework's principles for creating more inclusive production systems in their cities. Respondents' insights and feedback are captured below.

4.4.1. Governance

- Accra

In Accra city governments do not play a significant role in economic development and economic inclusion and decision making is largely driven from the top. Officials found it challenging to make the case for why local governments should play a larger, more strategic role in driving economic development.

- Nairobi

Unless decisions are driven top-down, the sentiment was that not much would happen. Officials who were interviewed indicated that it was difficult for them to successfully advocate for a more strategic role in driving economic development and as a result, city governments rarely play a significant role in this regard.

- Tshwane

City governments do not play a significant role in economic development and economic inclusion. The city's role at the location of economic activity is to some extent acknowledged but it does not participate in decisions around economic policy which happens largely at the national level.

4.4.2. Ecosystems

- Accra

Clustering is not something that is considered at a local city level and instead when thinking of clustering, officials referred to it in the context of regional partnerships and engagement.

- Nairobi

As with Accra, clustering is considered a regional issue. Nairobi is the central hub for employment and economic activity and the Nairobi Metropolitan Authority (NMA) plays an important role in connecting the various regional actors and counties within its proximity. The building of stronger connections and networks to enable and generate access to opportunities is thus considered critical.

- Tshwane

Tshwane hosts numerous industry forums at the local level where various actors are brought together to share knowledge and resources. This allows emerging black entrepreneurs better access to potential supporters and investors. The city uses the clustering approach as a way to help people identify gaps in what is needed to address local issues, and introduce solutions that encourage investment. Despite this, however, officials did not feel that they had sufficient authority or influence to address these gaps.

4.4.3. Infrastructure & finance

- Accra

Roads, reliable electricity provision, and access to water are considered critical for economic and social development, and to promote innovation. But while there have been investments in infrastructure respondents emphasised the need for improved infrastructure to allow for greater inclusivity of people in the social and economic life of these cities. Poor and inadequate infrastructure planning in poorer locations of the city have been left to evolve organically. ICT access and skills development was seen as an important way to empower people to increase economic activity. Overall, respondents felt that the city has authority over the development of effective infrastructure but lacks the financial capacity to provide it.

- Nairobi

As with Accra, there was recognition of the need for infrastructure such as roads, reliable electricity provision, and access to water. While some infrastructure has been provided but more is needed to move towards greater social and economic inclusivity. Insufficient planning for poorer areas has led to massive growth in these parts of the city and a process that has evolved haphazardly and without a clear strategy. Public and private investments in Nairobi highlight the need for access to reliable and affordable internet connectivity and in this regard, Kenya is considered one of the leaders in internet penetration on the continent. Additional new technologies could provide opportunities for better organised economic activities and economic services with respondents noting that with ICT things become easier, such as how services are paid for, access to training, with long-term positive contribution to the economy. This, in turn, can lead to innovations which improve services and economic access, and it can also simulate further creativity among various actors who contribute towards economic growth.

- Tshwane

Recognised the importance of roads, reliable electricity provision, and access to water for economic development and inclusion. But acknowledge that more can be done. Despite massive investments, access to reliable infrastructure remains limited. For traders, inner city spaces with better infrastructure means higher rental fees. Small-scale traders are subjected to extremely high rent in well-located areas, while in historically disadvantaged black townships, no dedicated spaces exist in which to do business. As a result, many township entrepreneurs use their homes or trade from the streets. The city does have authority over the development of effective infrastructure but insufficient funding to do so. Officials emphasised the importance of provincial and national government and the private sector stepping up to play a role in providing infrastructure. Currently, a lack of effective and adequate planning for cities leads to infrastructure gaps, a situation exacerbated by implementation challenges, poor cooperation and engagement between relevant actors, and corruption.

4.4.4. Research and development

- Accra

There have been discussions around how to collect real time big data to help the city plan properly. But funding dried up, hampering the process. However, research and development remain high on the agenda and ongoing efforts are underway to access data that would help with planning and insights. Respondents spoke about needing contextualised frameworks aimed at studying and producing knowledge about local economic issues. They highlighted how innovation literature and other academic concepts tend to exclude the African continent's experience. More consideration should be given to Africa's local specificities, and how such thinking might better serve what may be some uniquely African challenges and conditions.

- Nairobi

Despite the proximity of knowledge institutions, information is not shared strategically; nor is it targeted in a way to encourage creativity and learning. Instead, the production and application of knowledge, as reflected on by Nairobi respondents, is individualised rather than institutional. Respondents lamented this individualism and lack of desire to pass on knowledge, or to develop and produce research and insights aimed at addressing Africa's biggest challenges.

- Tshwane

There is extensive knowledge production from, among others, local universities and research institutions. Respondents indicated that the flow of information and knowledge between business, local economic actors and other institutions was insufficient. Relationships exist on a one-to-one basis when it comes to piloting or supporting innovative interventions, and only when the city initiates them. The overriding sense was that there wasn't a culture of sharing and engagement around creative ideas.

4.4.5. Markets

- Accra

Respondents noted the need to structure and steer the local economy. Instead of leaving the economy to develop on its own, actors need support, and the local municipality must properly mobilise its own internally generated revenue to provide this. They suggested that there has to be a way to identify and build economic pipelines to organise better access to markets. However, it is potentially an issue of political authority as the Ministry of Trade and Industry is the core authority on economic matters. The informal sector was recognised and noted that support needed to grow informal sector actors.

- Nairobi

Respondents gave little engagement and feedback on how the local authority facilitates and supports improved market access for economic development and inclusion in the city as they do not consider themselves to have authority over this area. The role of the informal sector was highlighted as a crucial areas requiring support.

- Tshwane

Tshwane officials saw market access as a key area and one where they can exert authority. To this end, they actively lobby the private sector to access small-scale markets and buy local products. As with the other two cities, respondents highlighted the potential role of the informal sector and what contribution actors could make within it. Officials also spoke of the role of the private sector and the importance of building and supporting relationships between private sector formal actors and new entrants to the market, both formal and informal. However, they did not consider themselves to have much influence over or responsibility for formal or big businesses. Officials don't feel local government can exert any power over the formal private sector's decisions or direction. Where specific reference was made to the formal sector, this was in relation to startups and small medium and micro enterprises (SMMEs). They referred to how formal sector actors could better facilitate access for emerging entrepreneurs and innovative ideas coming from informal activities and industries. While they acknowledged that formal business actors have a significant role to play, respondents chose to speak about the economic sectors that are underserved, and that they have greater traction to drive more inclusive approaches in their respective cities. The city's role at the location of economic activity is to some extent acknowledged but it does not participate in decisions around economic policy which happens largely at the national level.

5. Local government's role

Several common themes arose that were considered central to the local government's role and its ability to facilitate inclusive economic growth and development in Africa.

5.1. Governance

Centralisation and limited powers and functions: Respondents all mentioned decentralisation as a way to allow either better service delivery from the state, or to generate greater inclusivity for residents of the city. In Accra, respondents raised fiscal decentralisation as a particular issue, and as a way to address the local government's budgetary limitations. They lamented the city receiving only about 5% of the overall revenue as they do not have the power to raise revenue on their own for strategic development objectives. This means they miss many opportunities to make strategic decisions and investments that might benefit the city's economy and its people.

Tshwane respondents highlighted the importance of communities being allowed to take ownership of certain processes as they may have innovative ideas to address their specific day-to-day challenges.

> Communities tend to have rich solutions but you almost sense the frustration if there's a water problem, a waste problem, the solutions are there but the access for them to come in and then work and co-create solutions is very difficult. And we try within our little limited sphere of influence to address that issue,

a respondent told us. They added that this frustration leads to lost opportunities for creating new businesses and jobs. Given the informal sector and developmental challenges, devolution of this kind would present a novel way to address inclusion and inequality.

Public sector innovation: Many officials think innovation is unlikely to emerge from the public sector which is hamstrung by formal constraints and because even within its own ranks, finding innovative and creative ways to address issues is long and onerous. An example of a creative response, however, is in Tshwane with the city introducing innovation hubs that allow emerging small businesses to access infrastructure and resources during their early incubation years. However, rather than equip the small businesses for independence, given the tough nature of the economy, many have become reliant on this support and struggled once they were no longer part of the hub, partly due to the lack of available capital and accessible markets. Tshwane officials have acknowledged this, and they are beginning to place emphasis on creating improved market access for small businesses.

Trust: Lack of trust among various actors in the cities was not explicitly mentioned, but it was alluded to. There seems to be little trust between governments and the actors they aim to support. In all three cities, corruption and poor decision-making cause low levels of trust in government generally – and in local government in particular – that issues facing communities will be tackled. In particular, people in more precarious, informal contexts have little reason to engage with and trust government officials. This may be because often attempts to assist them are meant to lead to formalisation without officials having sufficient appreciation that this might make it more onerous and expensive to do business and earn an income. There also seems to be distrust between different levels of government. Local officials felt national government directs them too much rather than trusts them to know, plan, and implement what they believe to be the most effective interventions in their local regions.

5.2. Ecosystems

Alignment between development planning and economic strategies: Across the three cities, interviewees indicated that their local authorities are responsible for planning and executing physical development. However, there is poor alignment with national level economic policies and, as noted earlier, little to no engagement with local governments around economic policy and strategy. In Ghana, the Ministry for Trade is responsible for economic planning and investment. South Africa has a Ministry for Trade and Investment and a Ministry for Small Business Development. In Tshwane, it is not apparent what, if any, alignment there is between its local plans and those of these two ministries. The status quo of infrastructure for small business initiatives to trade around the city suggests that ongoing city planning does not take traders' needs into account. Provision tends to be more piecemeal rather than part of the broader infrastructure plans. Both Accra and Nairobi demonstrated little alignment between planning for the city and its infrastructure as a whole and people's access to economic activities. Policy coordination and planning is largely done by their central governments' ministries and agencies. It is then filtered down to the local level for coordination and engagement. However, respondents noted there is insufficient planning around creating adequate infrastructure and access, and that much of what is in place evolved organically, with many residents continuing to face significant challenges in accessing economic opportunities.

Accra respondents said the local authority should receive the mandate for planning around the local economy because they have the skills and information for proper alignment. Nairobi seems to be more advanced than the two other cities as regards access to telecommunications and Wi-Fi. Connectivity is high and even poorer communities can access Wi-Fi and data. However, this is not necessarily capitalised on through having more effective planning and development.

5.3. Infrastructure finances

Financial capacity: The ability to afford start-up costs and have the necessary funding to maintain consistent production was considered an important component for enabling and facilitating economic activity in all three cities. Effort was made to fund entrepreneurial activity in SMMEs and marginalised economic groups. In Tshwane, emphasis was placed on this. The city engaged various funders across the public and private sector to sponsor some pilot projects. Similarly in Accra and Nairobi respondents said funding is provided to small and medium enterprises, with a focus on supporting women and young people. In Nairobi, funding was guided by a procurement framework aimed at increasing participation of people in previously disadvantaged or vulnerable categories. Some loan schemes are also in place with the caveat that these might have the unintended consequence of people getting into debt.

Centralised fiscal and financial control: Most respondents noted that funding for economic activity was largely centralised and that national governments exerted authority and influence over spending in general. Central governments were also the key decision-makers for economic policy and interventions. There were slight variations: Tshwane was soon to generate some of its own revenue. This could only happen in theory in the other two cities as part of their decentralised approach. As a result, the local authorities in this study have limited space to make choices about their budgets and to make interventions that could drive economic developments. However, even Tshwane acknowledged it did not possess full financial capacity to drive economic innovation in its region. It often had to rely on provincial and national authorities, as well as the private sector's roles. Also, local government does not really feature in decision-making with private sector finance, foreign direct investment, or philanthropic funding.

5.4. Research and development

Creating new knowledge: Given the prevalence of major economic players as well as academic institutions, particularly universities, across the three cities, it is surprising how little R&D appears to take place in direct support of their local economies. This proximity between knowledge institutions and economic actors, both formal and informal, could lead to greater use of data, monitoring, assessment, knowledge generation and learning to help inform economic activity. In Accra, one respondent noted that knowledge generation was important but acknowledged that the sourcing and analysing of data was still in its infancy, and that lack of financial resources have hampered progress. In Tshwane, there are numerous partnerships with both the private sector and academia but little cross-referencing that would allow for information-sharing to guide better planning and implementation. More research may need to be conducted on how to unlock this wealth of knowledge and potential in each city,

Roles of Quadruple Helix (Q4) actors: There was discussion around knowledge production and a knowledge ecosystem. This refers to the various actors who could benefit from knowledge flows, including government, business, academic institutions and communities. There has to be a stronger connection and conscious knowledge sharing with community actors, particularly with SMMEs and those involved in informal activities. To enable this, there are specific roles each actor needs to play in the system. However, current experience shows that the roles are not fully developed or working. Various respondents raised issues which are summarised in Table 1.

5.5. Markets

The issue of informality is complex. Despite the challenges associated with it, informality is an example of African innovation and resilience. An interesting point emerging from the interviews was the nature and identity of the informal sector in the African context. Informal sector actors are often highly innovative and create much more user-friendly and useful outputs than they are given recognition for. Informal sector actors operate in the most extreme environments. However, in some instances, they have even surpassed what is produced in the formal context. The *jua kali* in Kenya is an example of this. They have developed accessible and affordable products and services of high quality. As this informal sector continues to grow, it will be crucial to support and invest in it without inadvertently impacting on the very things that make it so accessible, for example by over-regulating or attempting to formalise the sector. All respondents acknowledged the resilient nature of the informal sector; they recognised the 'hustle' of African entrepreneurs and traders. Interventions and regulation should focus on areas where there might be negative impacts on the local economy. For example, in the Kenyan and Ghanaian clothing sectors the import of cheap foreign products can flood local markets. It has the potential to destroy any local textile and clothing markets (Owusu et al., 2022).

Recognition of the informal sector in these three countries is far from adequate at both national and local levels. At the local level, where interventions are likely to have the most impact, cities do not possess the roles and functions to create support systems for the informal sector; these are not local government functions. Examples of state

Table 2. Roles for different actors in driving and supporting inclusive economic development.

Local government's role	Private sector's role
• Facilitate better policy/strategy/planning alignment. • Enable local knowledge production. • Influence effective and efficient information flows. • Enable and invest in smart infrastructure that might facilitate the creation of new and productive economies. • Leadership insights and vision to push for local government to play a more appropriate role.	• Engagement and partnership between private sector and other actors in the local economy. Tshwane gave an example that the private sector could invest in SMMEs but that it also needed to help develop markets for them to flourish. • Recognise that the gap between formal and informal sector is not as wide as assumed. • Social responsibility.
Academia's role	Communities/civil society's role
• Nairobi and Tshwane in particular challenged the purpose of knowledge institutions given their disconnection from local economies. There is literature to evidence this crucial gap. • The city's massive knowledge endowment ought to translate to direct benefaction in local development terms (Petersen & Kruss, 2021), and yet does not seem to do so at scale (SACN, 2012).	• Accra and Tshwane both noted that communities could play a much more active role to augment and support government strategies, and not just push for accountability in the delivery of services. Tshwane gave an example of entrepreneurial opportunities in community-based waste management.

Source: Authors.

interventions include providing economic and social safety nets, and an enabling economic and labour context. Interventions to date have mostly focused on the creation of innovation hubs and incubators. But these are merely band-aids as they provide support at the start of a project but this does not enable sustainability. Once a start-up leaves the incubator programme, it often does not continue successfully on its own. Given the extent of informal economies in these three cities, it is impossible to ignore the informal sector or underestimate its role. The informal sector's contribution, size and potential for contributing towards the broader economy should be factored in. Rather than just attempting to formalise and regulate, there should be some engagement around scaling up from the bottom that does not impact adversely on these activities (Table 2).

6. The role of local government: Possibilities and constraints

Given the political and leadership challenges across the three cities, trust in local government seemed relatively low – even by municipalities themselves. Yet, despite the apparent lack of trust, and ongoing challenges of corruption and mismanagement, local governments are still best placed to deal with local-level challenges given their proximity to those they are responsible for providing services to. In spaces like the three African cities discussed in this paper, the LIPS framework offers a useful lens as it emphasises the different scales of operation, including recognition of the economic potential at the local level.

Local government could contribute towards the local growth and development of African cities, and particularly in enabling and facilitating cities that are inclusive (SACN, 2017). Some ways to encourage this role is to provide better incentives. If local governments and their officials are sufficiently rewarded for reducing inequality, they may be more inclined to play an active role in enabling inclusive economic activities that would assist with reducing the unequal nature of African cities. If incentivised to be innovative, officials may be better placed to move beyond bureaucratic constraints and to encourage creativity in the ecosystem. This could support and harness informal communities' creativity and innovation. Examples of rewards include specific funding for innovation, recognising where innovation is taking place, and supporting the scaling up of initiatives.

Through our interviews, we identified some gaps that, if addressed, may lead to more innovation.

6.1. Public sector innovation

There is room for innovation in the public sector itself as government's largely encourage a compliance-based culture – not wanting to fail or make mistakes. Cities themselves have to consider what can be done locally to innovate. The Tshwane respondent noted this as one of the major challenges in their city, and that it is nearly impossible to facilitate and encourage a culture of innovation in the broader city context when the public sector itself continues to employ dated technologies and approaches.

6.2. Leverage green growth

Climate change and building resilient economies have become crucial preoccupations at every level, everywhere. African cities are among the most vulnerable to environmental and health challenges with a myriad of opportunities for communities and entrepreneurs to invest in and address climate mitigation and climate justice issues. As a coastal city, Accra particularly emphasised this point.

6.3. Leverage and support informal energy

Much of the focus on economic growth and development to address inequality tends to be directed to education and training; to get more skilled entrants into the labour market. But there could be a greater focus on nurturing and cultivating non-traditional skills. Young people must be engaged with, along with other people who live in and make their living from informal activities, to hear their vital inputs and experience. We need to ask how we could harness and further expand creative energies and ideas that exist on the margins to make important contributions to people's lives. There are vibrant economies and activities that operate across cities which are often not recognised within traditional conceptualisations of economic activity. It is here where the local level focus, with particular emphasis on local needs and peculiarities, could allow for focused interventions and support.

6.4. Include the excluded and marginalised

Another area for consideration and response is in the context-specific dimensions of inclusion. For example, respondents noted that policies that focus on the economic inclusion of specifically women, young, and disabled people are needed. All respondents highlighted the need for more nuanced engagement and responses where there may be barriers to entry especially for those actively denied access to economic opportunity.

We recognise that local governments across the three countries have experienced well-documented challenges related to corruption and poor administration. There is no guarantee that a bigger local government role will result in innovative economic practice without any challenges. The political and administrative challenges that plague local governments will likely continue to hamper officials' ability to drive and facilitate more innovative and inclusive thinking. However, this does not necessarily negate the argument that local government is well placed to be an important actor to facilitate inclusion, particularly for more marginalised and informal sectors. In addition, the challenge of corruption and maladministration is not unique to the local sphere of government. Thus, the potential challenges are acknowledged and further studies may investigate strategies for how these endemic obstacles to progress may be navigated and overcome.

7. Conclusions and recommendations

The contribution of the LIPS framework is that it enables us to consider the micro, meso and macro dimensions when analysing a country's economic performance (Lastres & Cassiolato, 2005). The framework has been indicatively used in this study to reflect on the role of African cities and their local actors in enabling innovation-driven inclusive economic growth and development. Our findings suggest this role at local level has been inadequately developed. Our study also finds that there are some positive movements in the African city contexts. For one, there is increasing recognition of the local level's importance with increasing numbers of national urban policies (NUPs) and local economic development frameworks which amplify the role of cities in economic thinking and planning. As national economies struggle, exacerbated by the Covid-19-era, there will be an increasing focus on local innovation and creativity that could create the opportunity for more conscious and inclusionary economic practices. There are also positive signs regarding the valorisation of informal economies in the global South. A number of countries, including South Africa and Ghana, are beginning to develop enabling policy responses.

However, what our study really centres is the underdeveloped role of local governments in national innovation systems. City governments could clearly play a role in strengthening inclusion in local realities. They could:

- support, among others, innovation and entrepreneurs;
- be important levers, enabling equitable economic outcomes by, for example, strengthening the local economic planning and making better planning connections;
- increase sensitivity to existing informal sector economies and local industries; and
- identify and enable new innovation ecosystems that have been emerging, alongside traditional industries, such as the gig economy, startups, digital space, and civic technologies.

Local governments can more easily work across all the Q4 actors around practical, local issues and opportunities, particularly emphasising the typically marginal civic and academic actors. But, as indicated by a City of Tshwane respondent, cities can only do this if they have an innovation or entrepreneurial mindset themselves, as a public service. A broader understanding of innovation focuses not just on R&D activities and big business. It also focuses on learning and innovation in what people are doing.

This short study begins to suggest the applicability and usefulness of the LIPS framework which is based on that thinking. We suggest that studies into inclusive economies could focus more on local innovation systems, and the roles of local economic actors. This requires generating more knowledge and data about African cities, for example, as a level for economic and institutional analysis. Addressing the challenges which hamper inclusive systems of innovation and economic development across African cities will require attention to the following key issues we identified, and which are supported by existing literature (Karuri-Sebina, 2017; Adesida et al., 2021):

7.1. Address the basics

Providing finance, basic infrastructure, space, and facilitating access to markets are issues that recurred across the three cities. All the respondents referred to these as basics and are either in the process of addressing them, or planning to address them. This could be considered amongst the bare minimum of interventions they can make.

7.2. Un-formalise to respond to reality

Overly focusing on formalisation and regulatory reforms aimed at controlling informal sector actors tends to do more harm than good. It may be necessary to consider that where regulations are not in place, ways are found to provide enabling spaces that allow for creative and useful activities to continue, rather than placing onerous requirements that hamper or stifle them. More focus could and should be placed on determining what is needed to enable and encourage both large and small scale economic activities. The latter is often most affected by attempts at regularisation and bureaucratic red tape. Policy and strategy aimed at encouraging and boosting dynamic and innovative activity is needed.

7.3. Decentralise for real

While local authorities may have their challenges, they remain the best location for responding to specific local concerns, including guiding and informing what interventions could assist local economic development. They are also best placed to help strengthen and connect local innovation systems. Central governments should devolve powers and functions to strengthen local government's role in building inclusive local economies.

Cities themselves should own their role by acknowledging and supporting innovation. This includes bringing the various actors – or Q4 actors as noted earlier – together to play a role in innovation and knowledge clusters. National governments have begun to create national systems of innovation that encourage competitiveness and boosting their country's innovation. But it cannot do this from a national perspective only. The national system of innovation should be devolved to a local level with frameworks for the various actors to come together at the local space – the local system of innovation

(LSI). Because innovation has a spatial dimension, this is where all actors are in close proximity; they can leverage this proximity and location.

7.4. Education and skilling

The move to more service-based economic activity, as highlighted by the Nairobi respondents, has significant consequences for African countries that continue to have low levels of skills and educational attainment. This causes a mismatch between the skills required and what exists in the country; and it points to the need to focus on education. However, this should include broad-based development of entrepreneurs in the types of skills that can be used for new industries and technologies. Furthermore, having the necessary know-how for entrepreneurial activities will advance especially young entrepreneurs and small business developers operating in the informal sector.

7.5. Strengthen ecosystems and multi-stakeholder alignment

It was clear from interviews that there is insufficient alignment and little cooperation between various actors. For markets to be accessible and new innovations and ideas to be taken up requires especially the private sector to play a role, and the government to facilitate this. Innovation is already taking place across these sectors, but everyone is operating in silos: private sector, government, and communities. Very little recording, analysing, and connecting up is happening. For effective innovation and inclusive economic outcomes to occur there must be connections between the various actors, and between formal and informal.

7.6. Sector-specific enablers or barriers

Finally, it is also important to identify the specific areas for improvement or leverage, for example pooling resources; making processes less onerous; providing support such as insurance; and how to harness and protect specific niche industries that raise a city's competitive advantage.

This exploratory research has the potential to lead to further studies and thinking about the roles of African cities in facilitating and enabling innovation-driven responses that lead to inclusive economic development.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Deutsche Gesellschaft für Internationale Zusammenarbeit.

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