INNOVATION IS A KEY PILLAR OF KENYA'S DEVELOPMENT BLUEPRINT

Highlights from the First National Innovation Outlook Study for Kenya

Context and Rationale

Despite Kenya riding on innovation as a vehicle for economic growth, there lacks a consolidated platform where innovation activities and progress can be updated in real-time to serve as a one-stop-shop for information on Kenya's current innovation status and outlook. This hampers the ability of the government, local stakeholders, and foreign investors to make rapid and evidence-based decisions regarding investing in Kenya's ST&I sector. Additionally, Kenya's innovation landscape has been mainly assessed through the wider ST&I lens based on global standards and indicators and there have been limited efforts to domesticate the indicators to make them more relevant, understandable, and usable by local decision-makers. This inaugural Kenya Innovation Outlook study attempts to co-develop a contextual framework and indicators for measuring innovation together with stakeholders. It provides a template that can be used and regularly improved in assessing the country's innovation. The study was funded by the UKAid's-East Africa Research and Innovation Hub (EARIH) and technically led by the Africa Research and Impact Network (ARIN), in close consultations with the Kenya Innovation Agency (KeNIA).

KIO 2022 Framework

The KIO 2022 is sub-divided into six domains that describe Kenya's innovation status as *a process* of generating ideas, translating these ideas into marketable products, and generating development impacts:

1. *National and Global Policy and Economic Context*: defines how innovation is aligned to the development and policy context,
2. *Innovation life cycle/value chain:* comprised of the platforms and activities that directly drive the progression of innovation, from conceptualization through development commercializing, uptake, and impact,
3. *Investments:* comprised of financial and infrastructural investments from both state and non-state sources,
4. *Incentives:* comprised of the economic and legal initiatives (incentives) that the government and other players have established specifically to enhance innovations (for example, tax breaks)
5. *Impacts:* constitute the resultant economic, social, ecological, and political impacts of innovations

6. *Impediments:* constitute barriers to the value chain including cheap imports that price out local innovations from the market

Key Highlights

1. Innovation is highlighted in Kenya's Vision 2030 and other blueprints even though there is no consolidated visibility of the innovation agenda in these blueprints. Additionally, the country is making good progress in the innovation policy domain anchored on the ST&I Act of 2013, but most policies and plans are regulatory in nature. More effort is required towards facilitative policies e.g., commercialization policies and/or strategies. The country is also aligned to various regional strategies such as the STISA 2024 and international treaties but lacks a framework to evaluate the effectiveness of these regional/international treaties. Kenya's innovation governance was strengthened through the establishment of a dedicated agency mandated to promote innovation - the Kenya Innovation Agency. There are other agencies, but this outlook shows that the governance structure is concentrated on the regulatory functions and less on the facilitative functions (e.g., marketization, funding, etc.).

2. Kenya's innovation value is characterized by an increasing number of knowledge-producing platforms such as Universities, TVETS as well as student enrolments. This has increased the number of research outputs/publications and innovative ideas. However, turning these publications into commercialized products is a major challenge. Platforms for commercializing knowledge products are becoming prominent more so in the enterprise sector e.g., start-ups and incubation centers but remain relatively weak in the academic sector. There have been efforts to support the establishment of technology transfer units (TTU) in the institutions through the Kenya Industrial and Property Institute (KIPI) and KeNIA as a route to commercialization. However, the existing TTUs are relatively under-skilled, and not properly linked to the market needs. Compared to the TTUs, other commercialization platforms such as start-ups and incubators appear to accelerate commercialization owing to their stronger interactions with the external market environment.

3. Under the ''investments'', domain, Kenya's National budgetary allocation to ST&I remains low. Even though there are increasing infrastructure investments around digitization (ICT) the utility across sectors should be enhanced. The lack of adequate funding, especially for start-ups, impedes the translation of innovative ideas into marketable products. There is however increasing foreign investments and funding of hubs and start-ups in Kenya which could be enhanced by creating a better and safe business environment for foreign and local investors.

4. On ''incentives domain, Kenya has made efforts in easing the establishment of business through the e-citizen platform. However, political stability remains a threat to the business environment. Additionally, innovation awards have been established but they are too small scale to spur the development of innovative ideas and their impact remains relatively unclear and untracked. There is a need to develop an incentives strategy with clear budgetary allocation, coordination, and impact tracking system.
5. The impacts of innovation in Kenya are largely measured by economic returns especially the role of innovations in job creation and economic growth currently. On the other hand, there are multiple social and ecological impacts of innovation e.g., reduced carbon footprints through cleaner production but these have not been given deserved attention in the innovation pursuit. The skewed impact perspective is largely due to the lack of an inclusive impact tracking framework.
6. Finally, the key impediments to innovation include structural inefficiencies such as incompetence and corruption. These impediments mainly result in the loss of innovative ideas and opening up the market to counterfeit products that demoralize innovations.

Strategic investments areas and recommendations

Based on stakeholder prioritization and ranking, frontier sub-domains were identified in each of the domains. These form the basis for the recommendations listed here:

1. Innovation policy is highlighted as key in catalysing innovation actions. There is an opportunity to transform the country's innovation through establishing more facilitative policies that are less restrictive e.g., commercialization guidelines, strategies, etc. The specific policies to champion while may be difficult, this study recommends the **need for the development of a long-term National Multi-sectoral Innovation Masterplan.**
2. Commercialising innovation ideas is an opportunity **to turn huge amounts of research lying on the** shelves into market products that could spur economic growth and job creation. Enhancing funding and capacity development for the various **commercialization units e.g., TTOs, and incubation centers within academic and research platforms is a strategic investment opportunity.**
3. Funding is a critical part of Kenya's innovation outlook. **There is a need to increase public funding through models such as outcome-based funding that focus on specific delivery. Further, establishing university-led enterprises could enhance the private sector uptake of innovative research outputs.**
4. Incentivising business processes i.e., ease of doing business is an important part of Kenya's Innovation Outlook. **There is a need to develop an institutionalized business incentive strategy with clear budgetary allocation, coordination, and impact tracking system.**

5. Economic impact of innovation remains key in linking innovation to the country's development. Nonetheless, there are no frameworks to track the economic impacts of innovations. There is a need to align or strengthen the innovation outlook with the national economic outlook to establish clearer connections.
6. Structural inefficiencies such as corruption and incompetence are key impediments to innovation in Kenya. There is a need to enforce the IP policy through a transparency mechanism that facilitates patenting and protects innovations from piracy and counterfeits.