

# State of Kenyan Startup Ecosystem 2021 Innovation Environment in Dissonance

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#### **Acronyms**

Al Artificial Intelligence GII Global Innovation Index IP Intellectual Property

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Illustration 1: Kenya GII Ranking Trend

Illustration 2: Kenya's Innovation performance pillars

#### **Study Methodology**



#### **Acknowledgement**

Deepest gratitude to Viffa team that worked tirelessly to bring the report to fruition. A big thank you to all startups who participated in the survey as well as key experts who shared their expertise.

Special thanks to Dr. Tonny Omwnsa CEO Kenya National Innovation Agency (KENIA) and Kamau Gachigi Executive Director Gearbox for their invaluable insights.













#### Introduction

Despite not officially recognized in Kenyan law and most probably captured under services sector in ICT; Innovative startups represent an important sector in the Kenyan economy and a critical asset for the country's future growth due to their potential for rapid growth and wealth creation.

In order to harness the full potential of startups, Kenya's innovation ecosystem stakeholders must work in concert underpinned on the concept of attractor state (Attractor state espouses all stakeholders in a given industry working for the long term good of the industry rather than short term gain of individual institutions).

The importance of attractor state in Kenya's innovation eco system is well demonstrated by the Global Innovation Index which aims to capture the multi-dimensional facets of innovation.

Kenya was ranked position 86 globally and 3rd in Africa in the global innovation index with innovation output outperforming inputs (Illustration 1)

# **Illustration 1: Kenya GII Ranking Trend**







Source: GII 2020

The implication of innovation output outperforming innovation input is that Kenya is producing more innovation levels compared to its current innovation investment level.

A deep dive into Kenya's performance (Illustration 2) indicates best and weakest performance were market sophistication and infrastructure respectively.











# Illustration 2: Kenya's Innovation performance pillars



# Strength

Indicator Name	Sub units
Human capital & research	Expenditure on education
Market sophistication	<ul><li>Credit</li><li>Ease of getting credit</li><li>Microfinance gross loans</li><li>Ease of protecting minority investors</li></ul>
Business sophistication	<ul> <li>Innovation linkages,</li> <li>University/industry research collaboration,</li> <li>GERD financed by abroad</li> <li>Intellectual property payments</li> </ul>
Knowledge & technology outputs	<ul><li>Intellectual property receipts</li><li>ICT services exports</li></ul>
Creative outputs	Printing and other media



#### **Weakness**

Indicator Name	Sub units
Human capital & research	<ul><li>Pupil-teacher ratio</li><li>Global R&amp;D companies</li><li>QS university ranking</li></ul>
Infrastructure	<ul> <li>General infrastructure and Ecological sustainability,</li> <li>Electricity output</li> <li>Gross capital formation</li> </ul>
Business sophistication	<ul><li>Patent families</li><li>ICT services imports</li></ul>
Creative outputs	<ul> <li>Online creativity and in the indicators Cultural &amp; creative</li> <li>Services exports</li> <li>Wikipedia edits</li> <li>Mobile app creation</li> </ul>

Source: GII 2020

Kenya's innovation ecosystem players that includes: Government, Academia, financing institutions, Private sector and multi-lateral institutions among others must align their interventions in the innovation environment in order create synergy hence reap maximum value in terms of national innovation output.

Cognizant of the critical role startups have in driving innovation output; Viffa conducted its 2nd edition study that sought to explore critical factors affecting the growth of startups in Kenya with a view of monitoring as well as catalyzing corrective action by eco system stakeholders.

The study defined startups as a business that presents the following characteristics; registered organization of less than 8 years, must have an innovative business model that is either founded on information technology or based on technology, have a scalable business model and working towards development or improvement of products or processes or services.







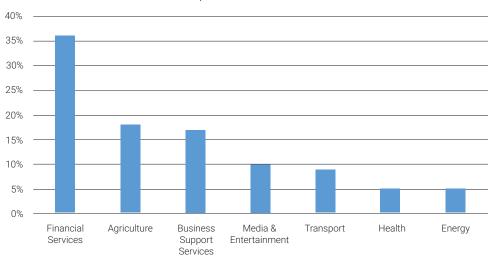




#### **Results**

#### Sector Distribution

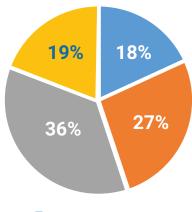






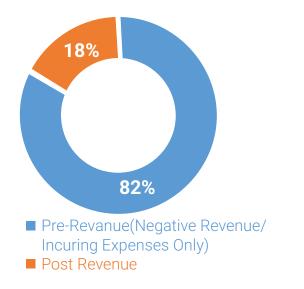
The bias towards financial services and agriculture is in response to gaps in the current economic architecture on issues such as challenges of access to finance, access to goods (due to low retail penetration) as well as a sub optimal performance of Kenya's agricultural sector

## Startup Type



- **■** Ecommerce
- Software as a service
- Mobile App
- Sided Market place (jiji,jumia etc)

#### Turnover/Revenue Position















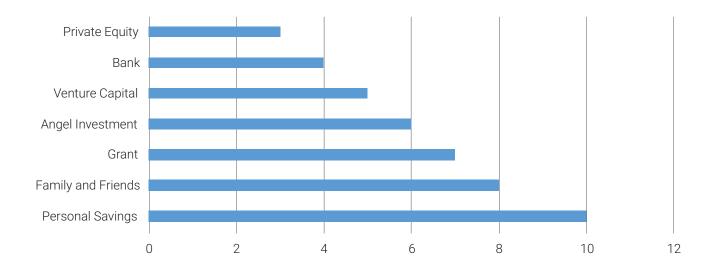
Startup fundraising depends on context in terms of growth stage. For instance, At pre-revenue, its easier to raise funds from friends and family. Post revenue is way easier to raise from VCs. At prototype it's easier to raise from angel.

Further The Kenya National Innovation Agency (KENIA) aims to launch Kenya Innovation Week that espouses to be a platform for:

- 1. Showcasing Kenyan Startups
- 2. Startup-Investor engagement
- 3. Startup policy announcements
- 4. Startup eco system stakeholder networking



## Business Finance Receipt Trend in 2020















Kenya's innovation eco system is still young which means startups may continue to struggle to establish bankable startups as well as attract significant external funding from Angel Investors and Venture capital due to:

- lack of proper support from needed stakeholders,
- Investment lag by local angel investors (Due to appetite for land and other investment classes as well as lack of capacity to evaluate startup investment)
- Investment bias by foreign investors



Startup Partnerships











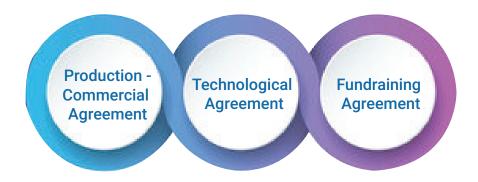


Choice of partner is driven by startup founder's demography (Age, Gender) and background which includes education level and background, level of professional network and level of business management experience among others.

Startup Incubators are important to startups for the following key reasons:

- 1.Startups are insulated from the harsh reality of a business environment, where rent and costs of operations can overwhelm a startup.
- 2. Startups can access capacity-building support in developing the business.
- 3. Startups can build their networks

# Type of partnership Agreement



# Type of Innovation most prevalent







Product Innovation



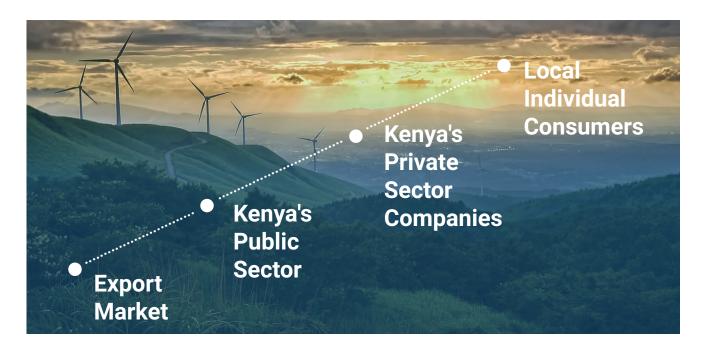




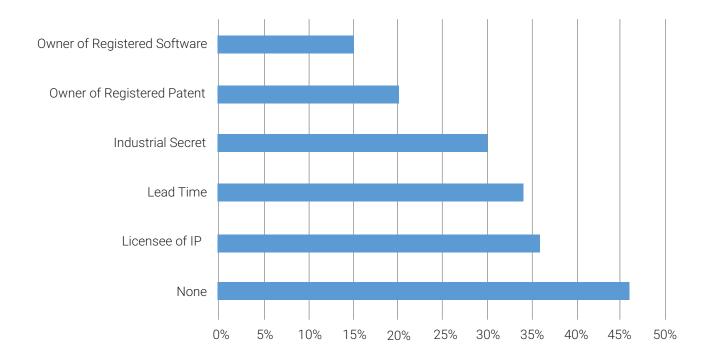




# Top Startup Target Market



# Mechanism for Protecting Intellectual Property (IP)















The high response to lack of mechanism by startups in protecting IP is driven by:

- 1. High cost and complexity of filing for an IP in Kenya
- 2.Reported weaknesses in IP enforcement in Kenya
- 3. Weaknesses in talent and HR to file patent especially in engineering and material science innovation
- 4. Threat of dishonesty and theft by corporate partners (Large private sector companies) leading to non-filing

On the flip side; there are Kenyan inventors mostly in academia who are holders of registered IP but lack the capacity and resource to commercialize.

To harness this potential, Kenya needs a national integrated approach led by KENIA by:

- Conducting a national audit of all potentially viable IP
- Aggregating the IP into a central database together with inventor's details
- Providing a match making platform for linking these inventors with relevant support stakeholders who can support actualization of commercialization

#### References

Global Innovation Index 2020https://www.globalinnovationindex.org/ userfiles/file/reportpdf/GII\_2020\_KeyFind\_ English\_web.pdf

# Most Pressing Challenge

- Access to finance
- Access to market
- Talent {AI, Block Chain, Material Science}
- Business Regulation
- Taxes
- Distribution channel













