# UNDERSTANDING THE KENYAN STARTUP ECOSYSTEM



A REPORT ON
THE SURVEY FINDINGS OF
STARTUPS AND STARTUP ECOSYSTEM
STAKEHOLDERS IN KENYA

This document is an output from a project funded with UK Aid by the UK government for the benefit of developing countries. However, the views expressed and information contained in it are not necessarily those of, or endorsed by, the UK government, which can accept no responsibility for such views or information, or for any reliance placed on them.

This report was authored by a team of researchers from Maitri Capital, Kenyatta University, KIRDI, Megacap, and 1 Million Startups.

The team is highly indebted to the many people who either directly or indirectly contributed to the success of this study. We thank the Foreign, Commonwealth, and Development Office (FCDO) for financing the research work and the Kenyatta University Vice-Chancellor for entrusting us with the research work on behalf of the university.

Special mentions go to Amb. Kirimi Kabeeria, the Permanent Secretary (PS), the State Department of Industrialization, and Ms. Anne Mutahi from the MSME Advisory Unit, Office of the President, for accepting our request to be interviewed on the policy direction by the National Government.

We also thank individual contributors Mr. Ali Hussein Kassim, Ms. Florence Kimata, Mr. Maxim Bayen, and Siemens WeTu for their insights. Finally, we salute all the startup owners and other ecosystem players who permitted us to collect data in their respective businesses, without which this work could have been impossible.













### START-UPS THAT CONTRIBUTED TO THIS **REPORT**

































































# GOVERNMENT AGENCIES AND INSTITUTIONAL BODIES









































TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING AUTHORITY

#### **INVESTORS AND DONORS**







































#### **UNIVERSITIES**

































## **HUBS, INCUBATORS AND ACCELERATORS**





























# Table of Contents

Acknowledgement	2
Acronyms & Definitions	11
List of Tables	12
List of Figures	13
Executive Summary	16
1. Introduction	22
Definition and Characteristics	24
Startups Ecosystem Timeline	23
1.1 Research Problem	26
1.2 Objectives	26
1.3 Scope	27
1.4 Methodology and Sampling	27
2. Startups	28
2.1 Survey Findings	29
2.1.1 Founder Analysis	30
2.1.2 Gender Analysis	30
2.1.3 Geographic and Sector Analysis	31
2.1.4 Evolution and Life Cycle Analysis	32
2.1.5 Growth Factors experienced	32
2.1.6 Technology Analysis	32
2.1.7 Revenue Analysis	33
2.1.8 Funding Analysis	33
2.1.9 Challenges Faced by Startups	35
2.1.10 Other Findings	36
2.2 Gaps Challenges and Recommendations	38
2.3 Key Takeaways	39
3. Micro Small and Medium Enterprises	40
3.1 Survey Findings	42
3.1.1 Founder and Ownership Analysis	42
3.1.2 MSMEs and Financing	44
3.1.3 MSMEs and Employment	49
3.1.4 MSMEs, Incubators and Accelerator	50
Programs	51
3.1.5 MSMEs and Technology	52
3.1.6 Other Findings	53
3.1.7 Challenges	54
3.1.8 MSME-The gender lens	55
3.2 Gaps Challenges and Recommendations	56
3.3 Key Takeaways	

4. Hubs Accelerators and Incubators	57
4.1 Survey Findings	59
4.1.1 Impact on Formation of Startups	60
4.2 74+ Kenyan Private Hubs and Accelerators	61
4.3 Gaps Challenges and Recommendations	63
4.4 Key Takeaways	65
5. Academic Institutions	66
5.1 Survey Findings	68
5.2 University Hubs and Accelerators	71
5.3 Gaps Challenges and Recommendations	72
5.4 Key Takeaways	74
6. Government	75
6.1 Government Digital Masterplan Flagship Programs	78
6.2 Capital Markets in Kenya	79
6.3 Role of National Agencies	80
6.4 Survey Findings	81
6.4.1 Evolving Trends in the Ecosystem	82
6.5 Gaps Challenges and Recommendations	83
7. Governance and Policies	85
7.1 Survey Findings	88
7.1.1 Startup-Bill	88
7.2 Gaps and Challenges	92
7.3 Key Takeaways	93
8. Investors	94
8.1 Survey Findings	98
8.1.1 Investor Profile	98
8.1.2 Other Findings	98
8.1.3 Evolving Trends in the Ecosystem	102
8.2 Gaps Challenges and Recommendations	105
8.3 Key Takeaways	107
9. Summary of Findings	109
10. Recommendations and Conclusions	111
10.1 Gold Standard	113
11. Bibliography	114



# Acronyms & Definitions

ASSEK The Association of Startup and MSMEs Enablers of Kenya

AVCA The African Private Equity and Venture Capital Association

BDS Business Development Services
CBK The Central Bank of Kenya

**COVID-19** Coronavirus disease caused by the SARS-CoV-2 virus **FCDO** The Foreign, Commonwealth and Development Office

**FGD** Focus Group Discussion

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

**ICT** information, communications and technology

IPO Initial public offering or stock launchKAM Kenya Association of ManufacturersKeNIA Kenya National Innovation Agency

KenInvestKenya Investment AuthorityKEPSAKenya Private Sector AllianceKIEKenya Industrial Estates LtdKIIKey Informant Interviews

KIRDI Kenya Industrial Research and Development Institute

MSEA Micro and Small Enterprises Authority
MSMEs Micro, small and medium enterprises

N Number of Respondents

**SDGs** Sustainable Development Goal

UN The United NationsUON The University of NairobiVC4A Venture Capital for Africa

WEDF Women Enterprise Development Fund
YEDF Youth Enterprise Development Fund



# List of Tables

Table 1: Survey Sample Determination	27
Table 2: Challenges Faced By Startups	36
Table 3: Opinion Poll on Startups Taking Advantage of Startups	36
Table 4:SME Opinion on Local and International Offering to Start-ups	48
Table 5:Rate the Usefulness of Services Offered by Incubation and Accelerator Programs	50
Table 6: Degree to Which Elements Policy and Business Environment are an Obstacle to MSME	s 53
Table 7: Opinion Poll on Universities Having Strong linkages with Other Initiatives	69
Table 8: Opinion on Universities Actively Encouraging Individuals to Become Entrepreneurial	69
Table 9: Wide Variety of Funding Sources to Promote Entrepreneurship Within Universities	70
Table 10: Government Agencies Location And Services Offered to Startups	80
Table 11: Recommendations for Improvement of The Startups Ecosystem	81
Table 12: Government Agencies Views on Policies Implemented to Enable Startups	89
Table 13: Comparison of The Start-up Act of Tunisia, Senegal, Kenyan Ethiopia Nigerian	90
Table 14: Venture Builders/ Studios in Kenya	96



# List of Figures

Fv	00	utiv	10	SII	ım	m	2	r\/
ᅜᄉ		uu	v c	Ju			а	ıν

Figure 1: Big Four Ranking on the GSE Index 2022	21
Figure 2: Big Four Ranking on The GII Index 2022	21
Startups	
Figure 3: Fintechs dominate Kenya's Startup Ecosystem	29
Figure 4: Number of Startup Founders	30
Figure 5: Age range of startups	30
Figure 6: Founding Year of Startups	30
Figure 7: Startup Employees	30
Figure 8: Male vs Female Founders	30
Figure 9 Male vs Female Employees	30
Figure 10: County wise Startup presence	31
Figure 11: Sector wise distribution of startups	31
Figure 12: Geographic coverage of startups	31
Figure 13: Business Cycle of Startups	32
Figure 14: Growth factors experienced by startups	32
Figure 15: Technology Development of Startups	32
Figure 16: Startup revenue by year of operation	33
Figure 17: Amount of Funding raised	33
Figure 18: Type of Funding raised by Startups	34
Figure 19: Funding at each Stage raised by Startups	34
Figure 20: Startups intent to raise Finance	34
Figure 21: Future types of finance sought by Startups	35
Figure 22:Challenges faced by investors in finding suitable investors	35
SMES	40
Figure 23: MSME county Distribution	41
Figure 24: Number of Founders of MSMEs	42
Figure 25: Age of MSMEs founders	42
Figure 26: Highest level of education of MSMEs founders	42
Figure 27: Have the MSMEs Founders founded any other businesses	42
Figure 28: Percentage of ownership of MSME founder	43
Figure 29: MSMEs founder previous experience running a business	43
Figure 30: Founding Year of MSME	43
Figure 31: Total amount of funding raised to date	44
Figure 32: Type of funding raised	44
Figure 33: Process rating of raising initial finance	44
Figure 34: Process rating of raising follow-on finance	44

Figure 35: Percentage of MSMEs that have raised follow-on finance	44
Figure 36: Challenges faced in raising finance	45
Figure 37: MSMEs Plan on raising finance	45
Figure 38: Type of finance sought	45
Figure 39: Factors considered by investors when considering your business	46
Figure 40: Startups supported by ecosystems in accessing finance	46
Figure 41: How ecosystems supported in accessing finance	47
Figure 42: How Support services to Startups differ from sectors	47
Figure 43: Government support for the local startup ecosystem	48
MSMEs and Employment	
Figure 44: Jobs created by business in the last 10 years	49
Figure 45: Number of Employees in SMEs	49
Figure 46: Number of Jobs created by SME, past 10 years	49
Figure 47: SME participation in Incubation and Accelerator Programs	50
Figure 48: Specific tech or tech enabled	51
Figure 49: Technology solutions developed inhouse	51
Figure 50: Sector that the start falls under	52
Figure 51: Revenue earned so far	52
Figure 52: Aspects of growth experienced in the past 10 years	52
Figure 53: Male vs Female Founders MSME	54
Figure 54: Male vs Female Employees	54
Hubs, Accelerators	
Figure 55: Area of operation of Hubs, Local vs International	59
Figure 56: Number of Years in Operation of Hubs	59
Figure 57: Number of Startups that have emerged due to support services	60
Academic Institutions	
Figure 58: Mechanisms in place for breaking down traditional boundaries and fostering new	
relationships	67
Figure 59: Entrepreneurship integration as a major part of the University's mission and strateg	У
from Students Perspective	68
Figure 60: Universities Activeness In Developing Initiatives And Programs That Drive	
Entrepreneurship	68
Figure 61: University support for Entrepreneurial behavior	68
Figure 62: Opinion on whether Universities have a suitable finance strategy to support	
entrepreneurial development	70
Governance and Policy	
Figure 63: Investors' opinions on whether the Startup Bill addresses ecosystem challenges	88
Figure 64: Startups opinions on whether the Startup Bill addresses ecosystem challenges	88
Figure 65: MSMEs opinions on whether the Startup Bill addresses ecosystem challenges	88

#### Investors

Figure 66: Deals in Kenya by Investment Stage in the Period 2019 - H1 2022	95
Figure 67: Funds Raised by Stage of Investment between 2019 and H1 2022	96
Figure 68: No. of Deals by Investment Size (USD)	96
Figure 69: Type of Support by Investors	98
Figure 70: Investors Profile (No of Years Supporting Startups)	99
Figure 71: Investors Profile (Sector Focus)	99
Figure 72: Geographical Focus of Investors	100
Figure 73: Do startups take full advantage of locally offered services	100
Figure 74: Do startups take full advantage of internationally offered services	100
Figure 75: Does the local ecosystem sufficiently meet the needs of the startups	101
Figure 76: Is there sufficient support from national and county government for startups	101
Figure 77: Does Startup Bill address current challenges	101
Figure 78: Key Strengths of the Kenyan ecosystem	103
Figure 79: Key weakness of the Kenyan ecosystem	104



## **EXECUTIVE SUMMARY**

Kenya's startup ecosystem has achieved laudable milestones and is recognized as one of the most progressive ecosystems in Africa. These important milestones include the commendable level of funding received, an increase in the number of components such as technology hubs and other startup support organizations, and the introduction of policies and regulations by the government to support the sector. The Kenyan startup ecosystem suffers from insufficient research due to the lack of accurate and quality data on the development and dynamics of the Kenyan startup ecosystem, which often forces stakeholders to rely on biased or extrapolation-based data.

This information may not be complete or accurate enough to enable prudent decision-making or to support important interventions such as the creation of friendly legislation or support structures. This data deficiency also represents a major barrier to effective startup and innovation policy and program design, monitoring, evaluation, impact assessment, and learning.

Over the past ten years, the Kenyan startup ecosystem has changed, but little is known about how it has affected the country's economy, SDGs, and pertinent policy goals. This gap in information about Kenya's startup ecosystem, coupled with the fact that the nascent industry faces several challenges, highlights the need to establish a reliable, upto-date database and research output on this sector. The research aimed at improving comprehension of the Kenyan startup ecosystem and highlighting how historical lessons can be applied to the creation of new initiatives and policy decisions. The research is built on existing datasets and data-driven studies to provide empirical evidence of the current state of the ecosystem.

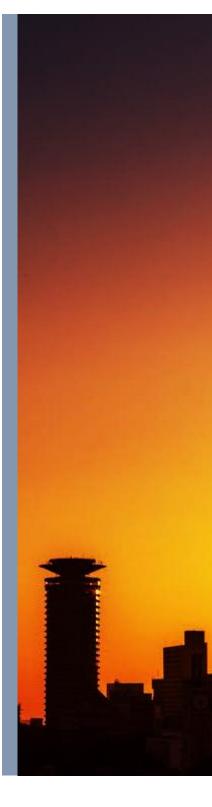
This report provides updated quantitative and qualitative evidence of Kenya's startup ecosystem spanning the last decade. The findings of this research present an opportunity to reflect on the potential long-term impacts of the Kenyan tech startup ecosystem, from both qualitative and quantitative perspectives. Views were collected from government-led and private stakeholders, including accelerators and innovation hubs. Startup case studies and videos were documented to showcase practical success stories and challenges. The study employed three approaches: cross-sectional design, longitudinal design, and human-centered research design. The Ministry of Trade and Industrialization, Kenya Youth Fund, (KeNIA), Konza Metropolis, County Governments, and the advisor to the President on SMEs were among the government stakeholders.



A structured questionnaire was deployed to elicit views from startups. In-person and online interviews with some state and non-state ecosystem actors were conducted to compile and further the perspectives. The research shows that Kenya's startup ecosystem has undergone many changes to reach its current state. Notwithstanding made over progress the the startup ecosystem struggles to realize its full potential. This report brings out the ecosystem's main challenge as being access to finance. Despite efforts to grow the ecosystem by encouraging the creation of new startups, for example through accelerators and incubators, this level of activity has failed to lead to a significant number of successful ventures with enough capital under their wings. The industry believes government support is insufficient, primarily attributable to ecosystem participants who do not understand the distinction between a startup and other MSMEs. There is currently no registration process for startups, which would make it simpler to enact sectorspecific incentives. The country's ability to churn out unicorns is hampered by the lack of a steady supply of high-potential startups and a higher failure rate.

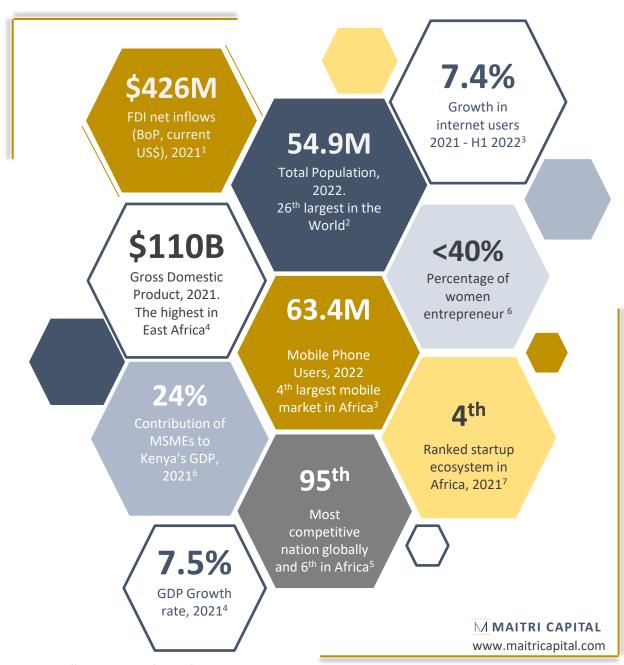
Most startups were noted to have sprouted in Nairobi. However, the findings also show that startups have moved out of Nairobi and set up bases in devolved regions like Mombasa, Kisumu, Uasin Gishu, and Taita-Taveta, among others. The future growth of startups will depend on impervious regulations that enable the participation of all industry participants through more focused strategies. Domestic investors need to be encouraged to fund domestic startups, especially given that the majority of significant funding rounds are made by foreign investors. To encourage more participation, governments should incentivize the activities of investors, private equity firms, and venture builders. Universities need to create a more coherent system to support innovation and research at the institutional level. More importantly, it requires the collective participation of all sector participants.

Across Kenya, the burgeoning startup sector has the potential to generate wealth, employment, and skills. The startup explosion in Kenya is fostering an ecosystem that may also have positive social effects by, for instance, enhancing lending access in important industries like agriculture. Additionally, the new entrants are helping to promote inclusion, particularly among young people and women. Stakeholders, such as governments, academic institutions, and technology hubs, have a crucial role in fostering sustainable growth and innovation to scale up these benefits.



#### KENYA'S INVESTMENT ATTRACTIVENESS

In terms of fostering a favorable business environment and continuing to be an alluring location for investors in East Africa, Kenya has come a long way. In comparison to its competitors, the nation continues to perform best in most competitive indices (including GDP per capita, FDI inflows, and competitive indices).



- 1. <a href="https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=KE">https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=KE</a>
  - . https://data.worldbank.org/indicator/SP.POP.TOTL?locations=KE
- 3. https://datareportal.com/reports/digital-2022-kenya
  - https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=KE
- https://www.worldbank.org/en/country/kenya/overview
   https://statistics.knbs.or.ke/nada/index.php/catalog/69
  - https://www.startupblink.com/startup-ecosystem/kenya

## KENYAN STARTUP ECOSYSTEM -THE NUMBERS

Particularly in the last ten years, the Kenyan startup ecosystem has snowballed to become what it is today. An increase in the number of startups in the ecosystem, the number of investors, and the amount of funding flowing into the ecosystem all indicate growth. Below is a number crunch that includes an ecosystem summary.



- 1. <a href="https://tracxn.com/explore/Startups-in-Kenya">https://tracxn.com/explore/Startups-in-Kenya</a>
- 2. <a href="https://thebigdeal.substack.com/p/mambo-eastern-Africa">https://thebigdeal.substack.com/p/mambo-eastern-Africa</a>
- 3. https://yearbook.kenyayearbook.co.ke/2022/05/23/constituency-digital-innovation-hubs-digihubs/
- http://www.parliament.go.ke/sites/default/files/2018-11/Report%20from%20NG-CDF%20Digital%20Innovation.pdf
- 5. https://kippra.or.ke/characteristics-of-kenyan-msmes-relevant-to-the-proposed-kenya-credit-guarantee-scheme/
- 6. https://www.startupblink.com/startup-ecosystem/kenya

# WORLDWIDE STARTUP ECOSYSTEMS GROWTH



<sup>1. &</sup>lt;u>https://www.statista.com/statistics/1092626/number-of-unicorns-in-the-world-by-region/</u>

#### KENYA'S RANKING - THE GSEI & GII INDICES



Kenya comes in third place in Africa on the Global Startup Ecosystem Index. behind South Africa and Nigeria. Cape Town, Johannesburg, Durban, and Pretoria were the top four cities in South Africa, while Nairobi and Mombasa were the top two cities in Kenya; Lagos, Abuja, and Ibadan were the top three cities in Nigeria, and Cairo was the top city in Egypt. Nairobi dropped 27 positions from its 2021 rating to place fifth in Africa and 163rd overall. Cairo came in fourth in Africa, while Lagos came in top. In Africa, Cape Town came in second and Johannesburg third, respectively.

The Global Innovation Index (GII) places Kenya third in Sub-Saharan Africa and 88th globally in 2022, behind Botswana and South Africa (2nd).

Kenya was ranked second behind India, among the 26 economies by the GII that were outperforming expectations for their stage of development. In areas including institutions, business. sophistication, knowledge, technology outputs, and creative outputs, Kenya outperformed its income group. Nigeria placed was 114th internationally and 11th in sub-Saharan Africa.

**NIGERIA EGYPT** KENYA **SOUTH AFRICA** M MAITRI CAPITAL www.maitricapital.com

https://report.startupblink.com/

https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2022-section3-en-gii-2022-results-global-innovation-index-2022-15thedition.pdf

# INTRODUCTION







# INTRODUCTION

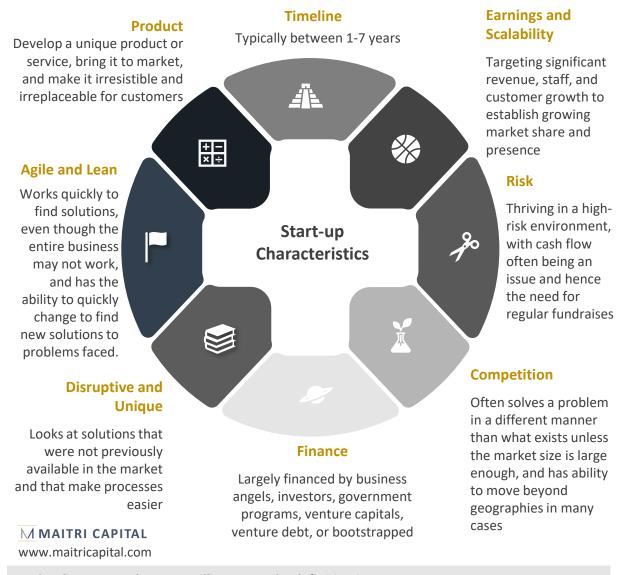
Studies show that the number of startups, incubators, innovation hubs, and accelerator programs is rising globally. The industry in Kenya appears to be expanding as more and more startups are popping up in a number of economic sectors. Google and Microsoft are two examples of the many multinational giants that have established innovation hubs or accelerators in Kenya to look into different technological solutions in the country. Entrepreneurship is a key factor in Kenya's economic growth and a source of employment. Medium-sized or smaller enterprises make up approximately 98% of all companies in the country and account for close to 40% of GDP¹. However, there is still a gap in the quantitative aspects of the startup ecosystem, making it difficult to find reliable sources of data on companies.

This FCDO-spearheaded study aims to provide qualitative and quantitative data on the development of Kenya's startup ecosystem. It presents quantitative data that provides a basis for evaluating different elements of the Kenyan startup ecosystem. Through initiatives like loan guarantee programs and research grants, the Kenyan government has shown support for MSMEs and entrepreneurs. By building incubation centers and innovation centers, academic institutions like universities and TVETs have also contributed. In counties like Laikipia, Machakos, and Nairobi City, county government support may be evident through county innovation funding and innovation weeks. Privately operated innovation hubs and incubators like Gearbox promote entrepreneurs and the ecosystem independently of governments and their institutions. There are also an increasing number of local and international startup conferences and competitions, including Glovo Startup Competitions, Disrupt Africa Live Pitch, and Shelter Tech Innovation Week.

Since 2010, Kenya's startup ecosystem has been described as a complicated mash-up of regulatory challenges, positive trends, increased institutional support, and ever-expanding economic prospects. Despite the fact that there have been many more players, companies, investors, and transactions in the last seven years, many important challenges remain. Kenya's business environment remains debilitating, owing to inflexible regulatory regulations and other reasons. Many factors, according to investors, have hampered efficient corporate operations, ranging from tax systems and insufficient government policy backing to high valuations and expensive personnel acquisition expenses. Other countries, such as Nigeria and South Africa, demonstrate that favorable government policies and ICT infrastructure go a long way toward ensuring economic success. Although Kenya remains the top country in the East African region and third in Africa, numerous difficulties remain unresolved, particularly in the macroeconomic and regulatory contexts. Governments may strengthen markets by making them more transparent and business-friendly, as well as through enhancing cooperation across government departments in formulating taxes and other regulations that influence firms. Kenya's contradicting goals of taxing new enterprises while encouraging entrepreneurship make it an intriguing economy to investigate further.

#### STARTUP DEFINTION AND CHARACTERISTICS

The features listed below demonstrate how this study describes a startup:



#### Under the proposed Startup Bill; a startup by definition is:

- o An entity registered in Kenya with at least one-third Kenyan ownership
- o A newly registered business or one that has been in existence for not more than 7 years
- An entity involved in innovation development, production, and commercialization of innovative products, processes, or services
- o Headquartered in Kenya or with a branch in Kenya and,
- A business that attributes 15% of its expenses to research and development

Small and growing businesses on the other hand, are commercially viable businesses with 5 – 250 employees that have potential and growth ambition

#### **KENYA'S STARTUPS ECOSYSTEM TIMELINE**

4	2007 - 2008	2010	2011	2012	2013
1 <sup>st</sup> Undersea Internet Cable	Launch of Mpesa Ushahidi, a	iHub is launched by founder of Ushahidi	iLab, the first University Hub is created in Strathmore	Micro and Small Enterprises Act	Vision 2030 including Konza City as a tech city is
	crisis mapping app developed			Savannah Fund Launches	launched Enactment of the STI Act Launch of Uwezo Fund
	!				Chandaria Innovation Centre, Nailab, C4DN
2014	2015	2017	2018	2020	
Safaricom Launches Spark Venture	Kenya, Netherlands launch \$1.2m ICT startups	Constituency innovation Hubs via the Ministry	Laikipia Innovation and Enterprise development	Finance Act amended to regulate VC and PE Draft of the Startup Bill	
Fund	initiative	1	Program	KES 1b to Solarise	
		! !	 	First Fast Afric	can Based Fund
	Weze Tele acquired by AFB at \$1.7m			by Afza Konza innovat \$540m to loca	
	acquired by			by Afza Konza innovat	
	acquired by AFB at \$1.7m  IBM launches new innovation	20:	22	by Afza Konza innovat \$540m to loca	
-DeveloPPP V	acquired by AFB at \$1.7m  IBM launches new innovation space at iHub  2021 d by startups ised by Twiga	-USD \$260M to -USD \$125M to -USD \$40M rais	Sun King WASOKO	by Afza Konza innovat \$540m to loca Spark Fund	
USD \$50M ra -DeveloPPP V -Startup Sava	acquired by AFB at \$1.7m  IBM launches new innovation space at iHub  2021  d by startups ised by Twiga	-USD \$260M to -USD \$125M to -USD \$40M rais	Sun King WASOKO ed by Twiga	by Afza Konza innovat \$540m to loca Spark Fund	al startups by
-DeveloPPP V -Startup Sava program	acquired by AFB at \$1.7m  IBM launches new innovation space at iHub  2021  d by startups ised by Twiga  centures launched nah accelerator  vation challenge	-USD \$260M to -USD \$125M to -USD \$40M rais -12 startups sel	Sun King WASOKO ed by Twiga ected for Googles	by Afza Konza innovat \$540m to loca Spark Fund  KI Fut cha Aca Gor	al startups by  EY  nds, Innovation

#### I.I RESEARCH PROBLEM

Africa has emerged as a possible future digital superpower with a fast increasing startup ecosystem over the last decade. Today, Africa is seeing an increase in the number of accelerators, innovation hubs, and incubation programs. The ecosystem is continuously changing and adapting to new trends, and existing literature must follow suit. Research is vital to ensuring that ecosystem benefits are distributed to industry players. It makes it easier for companies to gauge the size of their market and prospective trade. Research quantifies impact, as governments rely on data to make important decisions.

This research draws on these statistics to clarify the state of the ecosystem by examining the evolution of the Kenyan startup industry over the last ten years. This study focuses on ecosystem changes that have occurred over the last ten years in terms of entrepreneurs, investors, academic institutions, and the government. Furthermore, the research intended to identify important gaps and issues in the ecosystem and to make recommendations to improve its state.

#### 1.2 OBJECTIVES

Main: To outline the evolution of the Kenyan Startup ecosystem for the last 10 years.

#### Other Objectives:

- 1. To trace the development of the Kenyan startup ecosystem in the past 10 years by considering aspects such as gender, sector distribution, and service offerings.
- 2. Investigate the role of each participant in the development of the Kenya startup sector by first tracing its evolution and the changes that have occurred in these sectors, including how they are presently adapted to supporting startups.
- 3. To elucidate and decipher gathered data by presenting it in a format that can support decision-making for both the government and other sector participants.
- 4. Highlight areas where the government falls short in its role and recommend solutions in terms of policy and regulatory frameworks that will allow the ecosystem to thrive, as well as policies that will ensure that the entire sector is Pareto optimal.

#### 1.3 SCOPE

This Study was conducted in Kenya across all the 47 counties.

#### 1.4 METHODOLOGY

To achieve the set objectives, the study utilized three research designs. That is cross-sectional design, longitudinal design, and human-centred research design. The designs were considered appropriate for this study as they allowed the description and presentation of accurate profiles of study units without influencing them in any way and explaining their relationship without manipulation (Saunders, et al., 2009).

#### **I.4 METHODOLOGY** (continued..)

The study makes use of both primary and secondary data. Online surveys (Google Forms), organized face-to-face interviews, and phone follow-ups were used to collect primary data. Secondary data sources various publications on Kenya's startup scene. It is worth mentioning that the population of startups polled was compiled through consultations with active members of the ecosystem to identify early-stage firms, with an emphasis on those that have been in the market for the previous 10 years, those that have raised financing, and those that had female founders.

This study also offers a detailed evolutionary examination of all ecosystem actors. The survey sought the following information about startups in order to better understand the ecosystem: year of the founding of the startups; annual revenue generation; service offering; location of operation; the number of employees; gender composition of employees; stage in the business life cycle; the amount of funding raised; major constraints in raising finance; type of funding raised; and prospects of raising funding. Despite its limitations, it is intended that this work would enable important stakeholders and actors to evaluate progress and propose potential intervention mechanisms to assist the expansion of the startup ecosystem.

#### 1.5 SAMPLING

The survey was distributed to a vast audience across the country, and organizations that responded were categorised as startups or SMEs based on the parameters listed on the startup definition. This study also included participation from investors, enterprises, county and national government agencies, academic institutions, innovation centers, and incubator programs. The table below summarizes the list of participants as well as the data collection method used.

Table 1: Survey responses summary				
Category	Survey Sample	Data Collection technique		
Startups	35	Physical, zoom and video interviews, online surveys		
SMEs	66	Physical and zoom interviews, online survey		
Public Sector Players	12	Physical, zoom and video interviews, online surveys		
Accelerator and Hubs	14	Physical, zoom and video interviews, online surveys		
Academic Institutions	19	Physical and zoom interviews, online survey		
Investors and Donors	19	Physical, zoom and video interviews, online surveys		
Tech and smart cities	1	Physical interview		





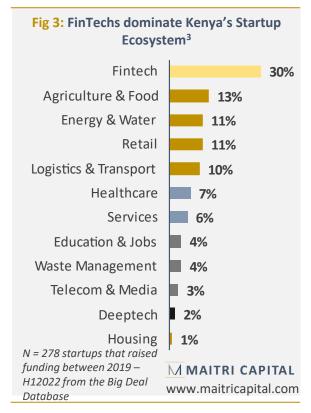


# STARTUPS

Though still in its youth, Kenya's startup ecosystem ranks first in East Africa, third in Africa (after Nigeria and South Africa), and 62nd globally. Because of a growing number of interested investors globally, a large population with access to technology, and a growing number of support organizations in the ecosystem, the ecosystem is currently a prominent hub for entrepreneurs in Africa. The development of Kenya's startup ecosystem can be traced back to 2006, when an underwater Internet cable was deployed. This caused a surge in connectivity and sparked the establishment of some of the first startups. Kenya's usage of mobile phones and the internet grew in the 2000s. This resulted in the formation of Mpesa, which was later adopted by Safaricom.

iHub, Kenya's first tech hub, was created in 2008 by Erick Hersman after he founded Ushahidi. iHub and MLab (2010) created an environment for businesses to incubate and thrive, followed by the launch of the first startup competition, Pivot East. The Kenyan government also initiated Tandaa Grants through the Ministry of ICT to encourage entrepreneurs to exhibit skills in various areas, and 45 startups or enterprises were funded between 2010 and 2012.

Currently, Kenya has over 1000¹ startups in various sectors. With heightened private investment and notable public raises from larger pan-African companies, despite economic obstacles such as inflation, devaluation, and a global slowdown, the ecosystem is resilient and has shown strong year-on-year growth.



31%

of the Kenyan startups had women cofounders<sup>3</sup>

22%

of the Kenyan startups had founders graduated in Africa<sup>3</sup>

#### 6 years

is the average time since graduation of a Kenyan startup founder<sup>3</sup>

113

is the no. of average employees in a Kenyan Startup<sup>3</sup>

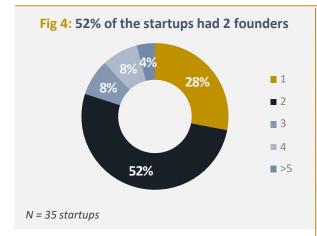
<sup>1.</sup> https://tracxn.com/explore/Startups-in-Kenya

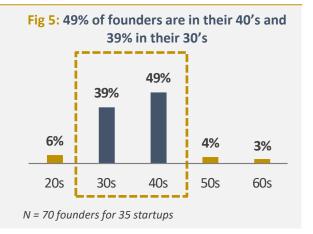
<sup>2. &</sup>lt;a href="https://techcrunch.com/2022/08/09/in-africa-kenyan-startups-have-so-far-recorded-highest-funding-growth-this-year/">https://techcrunch.com/2022/08/09/in-africa-kenyan-startups-have-so-far-recorded-highest-funding-growth-this-year/</a>

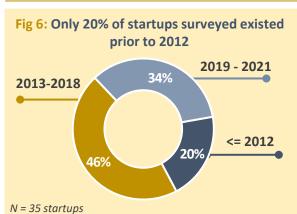
<sup>3. 2019-</sup>H12022 Africa The Big Deal Database

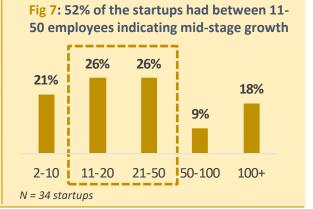
## 2.1 SURVEY FINDINGS

#### 2.1.1 FOUNDER ANALYSIS

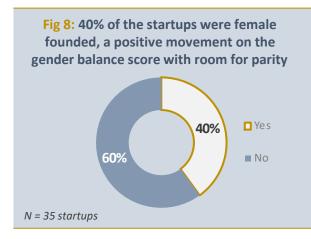


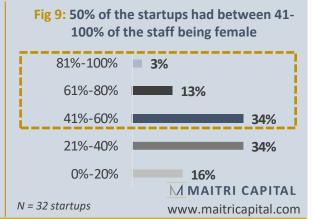






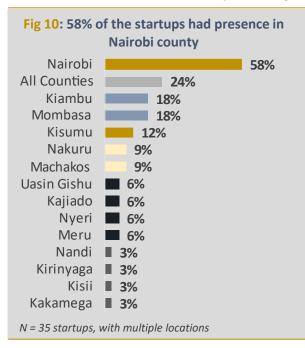
#### 2.1.2 GENDER ANALYSIS

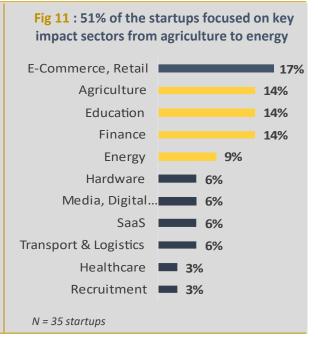




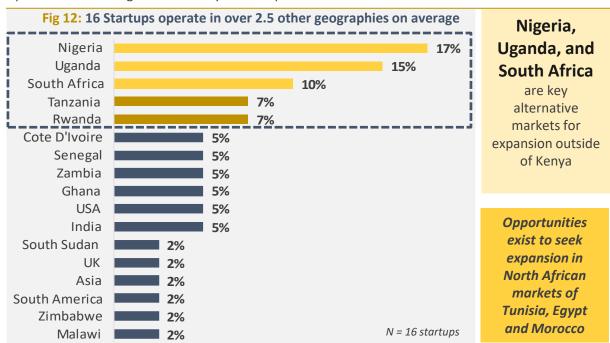
#### 2.1.3 GEOGRAPHIC AND SECTOR DISTRIBUTION

The survey indicated that other counties such as Mombasa, Machakos, Uasin Gishu, Kiambu, and Kisumu have a presence in startup operations, an indication that startups have been expanding to other counties from Nairobi County, including rural areas.

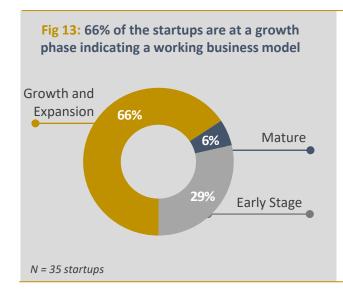




53% of the startups only operated in Kenya; however, we are seeing growing cross-geography presence across Nigeria from Kenyan startups



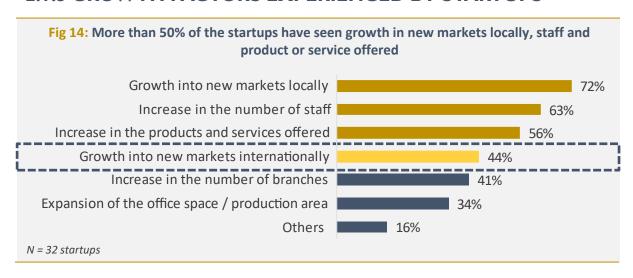
#### 2.1.4 STARTUP EVOLUTON AND LIFECYCLE ANALYSIS



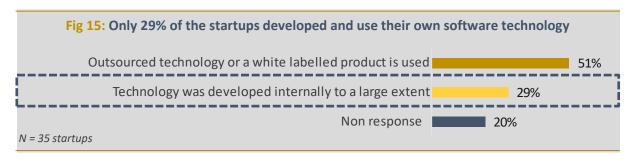
According to the business lifecycle analysis (early stage, growth and expansion, and mature status, as self-characterized by the startups), startups founded in 2012 or earlier are largely in the growth and expansion phase, with only one startup at the mature stage. Only one startup formed between 2013 and 2018 considers itself as being in an early stage, with one trying to exit and the rest of the 14 startups in the growth phase.

42% of the 12 startups founded between 2019 and 2021 have already classified themselves as being in growth and expansion stage.

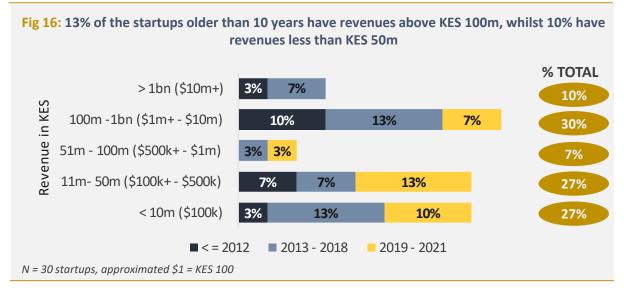
#### 2.1.5 GROWTH FACTORS EXPERIENCED BY STARTUPS



#### 2.1.6 DOESTHE STARTUP HAVE ITS OWN TECHNOLOGY



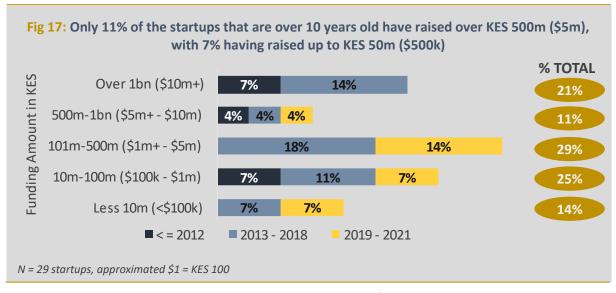
#### 2.1.7 STARTUPS REVENUE BY YEAR OF OPERATIONS



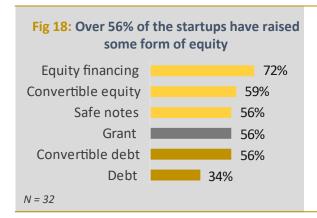
Only one startup older than ten years earns less than KES 10 million per year, while 6% of startups founded after 2018 earn more than KES 100 million.

#### 2.1.8 STARTUP FUNDING ANALYSIS

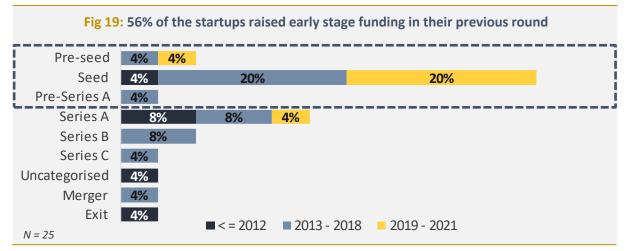
Of all startups that participated in the survey, 91% have tried raising funds, while 6% are fully bootstrapped thus far, and 3% have not provided input. Out of the 33 startups that have tried to raise funding, 97% have raised some funding through grants, debt, safe notes, equity, and various combinations of these. One startup has exited and another has merged.



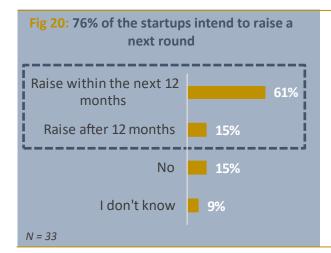
61% of the startups polled had raised more than KES 100M (\$1 million or more); startups founded between 2019 and 2021 raised a median of KES 100 to 500 million (\$1 million to \$5 million).



Debt as a standalone method of startup financing was low, at 6% of the total. As repayable venture debt options have become more prevalent in the market in the past 3 years, their usage has been primarily for onlending by most startups with fintech elements or investors with a strong impact lens, which provide working capital loans that are uncollateralized. Typically, it was noted that venture debt is provided to growth-stage startups rather than early-stage ones.

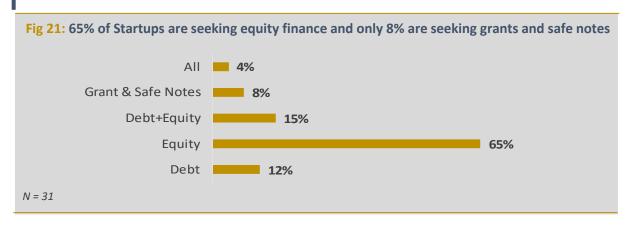


Over 76% of the funding raised was pre-seed to Series A funding, of which 12% were more than 10 years old, 36% were between 2013 and 2018, and 28% were between 2019 and 2021. Later-stage funding (Series B and Series C) was largely denominated by companies that existed between 2013 and 2018.



Startups appear to be having difficulty raising capital. Results from the survey show that 97% of respondents have found the fund-raising process difficult, while only 3% say the process is easy.

Despite the challenges, 61% seek to raise funding in the next 12 months, and 15% after a year. Of those raising finance, 65% are seeking equity financing, 15% debt and equity, and 12% pure debt, while 8% each are seeking grants and safe notes.



#### 2.1.9 CHALLENGES FACED BY STARTUPS



Investor readiness, financing options training, go-to-market strategies, and cashflow and working capital management training for startups are some of the training requirements that could solve the challenges indicated by the startups above

Table 2 on the next page shows the level of difficulty with the issues affecting the startup ecosystem in Kenya. These elements include a wide range of challenges, from corruption to tax administration and digital payment processes. Corruption (85%) and tax rates (82%) are at the top of the list. This indicates that tax legislation and policies need to be revised and harmonized in order to establish an enabling environment.

Table 2: Challenges faced by startups

Factor	Obstacle	No obstacle
Corruption	85%	15%
Tax rates	82%	18%
Legal processes and costs of running a business	80%	20%
Availability of market information	80%	20%
Tax administrations	77%	23%
Tax administrations	75%	25%
Legal processes and costs of setting up a business	75%	25%
Investor friendly legislation	75%	25%
Practices of informal sector competitors	75%	25%
Laws and processes for foreign investment in startups	70%	30%
Labour Regulations	67%	33%
R&D initiatives and University collaborations	45%	55%
Digital payment mechanisms	35%	65%

N = 27

From the table, it appears that among the top challenges faced by startups in the county (corruption, tax rates, legal processes) are policy-related issues. Hence, there is a need for policy formulation to improve areas such as tax administration and investor-friendly regulations.

#### 2.1.10 OTHER FINDINGS

The ecosystem's local and foreign services are utilized at varying rates by startups. Opinions on whether startups fully utilize these services varies. As 55% disagree with the statement that the ecosystem satisfies current demands, there appears to be a void in the local ecosystem that promotes local entrepreneurs.

Table 3: Opinion poll on local startups taking advantage of local and international services and local ecosystem meeting needs of local startups

Opinion	Strongly Disagree	Disagree	Neutral	Agree
Start-ups take full advantage of services offered locally in the ecosystem	5%	50%	41%	36%
Start-ups take full advantage of services offered internationally in the ecosystem	9%	36%	55%	32%
Local startup ecosystem meets current needs of local startups	18%	55%	41%	18%

N = 28

Apart from financial assistance, startup founders highlight various types assistance provided by investors. Introductions to other partners, introductions to other new markets. introductions to fundraisers, access to investor networks, learning from other portfolio firms, and assistance with strategy and investment pitch are all examples of value enhancements.

Investors have also assisted with strategy and execution, strategic advise on branding and advertising policies, business and product development, and problem-solving skills. Governance and capacity building, interim management, legal guidance on finance leadership, and governance structure are some of the other areas of assistance. Founders have faced hurdles through their startup journey. Some of the challenges mentioned by founders include: difficulty in raising new investments at the right time when the company need cash, surviving on low pay and working long hours, poaching personnel by large firms with the ability to pay well; and clients refusing to pay on time.

COVID-19 was also an issue because it resulted in client losses for the startups. Human resources and funding slowed down the operations of some startups, while others pointed to poor market reception of their products as the main challenge. Notwithstanding the challenges, founders have managed to overcome them through such means as personal coaching, pivoting, resilience, training talent, and capacity building. Some firms have gone so far as to charge monthly retention fees to ensure revenue flow. Bootstrapping and continual experimentation to grow revenue and cover expenditures have been the way out for some businesses.

Learning from their past mistakes, startup founders expressed their sentiments on how differently they would redo their journey. This is critical because lessons may be drawn and incorporated into in the teaching, incubation, and accelerator programs for future entrepreneurs. Spending more time investigating the problem before hiring a team, being more realistic about time and costs, hiring more experienced skill sets, and starting with significant capital were among the things entrepreneurs would do differently.

Some founders say they would push for profitability earlier, manage resources better, and shift their focus on revenues from non-commercial entities earlier. Success stories from these founders show that some have built great teams that enabled them to grow, and some have impacted society and added value to investors.

The founders propose the following reforms to make the Kenyan ecosystem and policy environment more inclusive and supportive: developing policies to facilitate the growth of startups in all sectors rather than measures to safeguard existing monopolies; a common taxation regime for all regions; reducing legal requirements; and greater collaborations between government and tax-compliant firms for tax advantages and holidays.

Some founders advocate for proper documentation of the startup registration procedure as well as further entrepreneurial training to effect market-relevant abilities. Beyond streamlining the registration process and increasing transparency in taxation policy, the largest issue that every country has and would provide a significant competitive edge is facilitating seamless skilled worker migration.

#### 2.2 GAPS, CHALLENGES & RECOMMENDATIONS



#### **GAPS & CHALLENGES**

- Many MSMEs are seen as startups by many stakeholders, and it has been difficult to distinguish between the two because the definition of each is unclear to many
- Lack of seed and angel capital, as most startups find it difficult to raise growth capital to kick-start their businesses
- Lack of ecosystem links because the ecosystem remains fragmented and information access is challenging despite the rising number of services offered
- Inclusion of startup ecosystem stakeholders in policy creation and highquality business support is lacking. Startups don't get much help in terms of advise on matters such as accountancy services, legal counsel, and business alliances
- O Inadequate long-term growth capital. Many startups are unable to achieve the high return expectations set by investors. On the supply side, there is a lack of customized products, an inflexible definition of collateral, and high interest rates on loans. On the demand side, startups lack awareness about products and struggle with investment-ready models for investors

#### **RECOMMENDATIONS**



- Establishing a concise definition of what distinguishes a startup from an MSME. In the introduction, this study made a recommendation on how to define a startup
- Make startup information more easily available. This could be accomplished through technologically enabled information platforms and portals
- Strengthen ecosystem relationships through media platforms, business networks, and industry meetings to help teach young business founders
- Unlocking angel investment from local high-net-worth individuals and the diaspora by addressing the framework constraints for investing. This can be accomplished by advocating for policies against double taxation and tight repatriation rules
- Investing in women and more diverse teams to enable women to be represented as both fund managers and founders.



- Access to capital remains the most difficult barrier for Kenyan startups. This is despite the huge success of some startups in the country on funds raised. This is especially true for early-stage firms, which are viewed as riskier by investors. However, this is especially true for early-stage startups, which are generally regarded as riskier by investors. The mismatch between startups and available financiers has been attributed to a variety of factors, including a lack of information by startups, funders' specialization in specific startup stages, and so on. Limited resources by financiers make the financing space extremely competitive and thus very difficult for startups.
- Government support remains insufficient despite commendable efforts at the county and national levels to raise the profile of the startup sector through, among other things, supporting regulations. Both startups and stakeholders believe that the government does not do enough to support startups, which experts attribute to policies that bundle startups with other businesses and MSMEs. Interestingly, sector stakeholders credit the lack of government interference in the sector for the commendable growth that has been achieved over the last 10 years. They demonstrate uncertainty over the implications of imminent control and regulation, as is evident in such new legislation as the Data Protection Act and the Startups Bill of 2021.
- VC4A research on 1,333 ventures registered in Kenya shows there is a relationship between startup performance and the support these startups receive from the Kenya startup ecosystem. For example, 50% of companies that participate in ecosystem support programs secure funding, with the average investment received nearly six times greater for startups that do not participate in the programs (USD 191K vs. USD 34K).<sup>1</sup>
- Stakeholders agree that the **Kenyan ecosystem is highly reliant on foreign sector players**, particularly in terms of startup funding. Concerns have also been raised about the composition of the founding members of startups that compete in terms of resource mobilization. The makeup looks to be skewed too heavily in favor of foreigners. As a result, there is a possibility for locals to fill in the opportunity gaps in the ecosystem as needed.

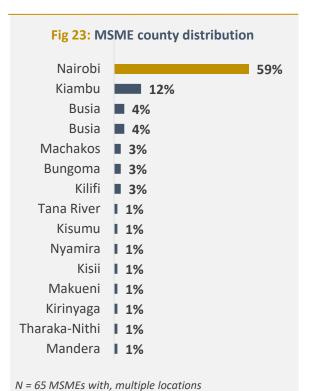
# SMALL AND MEDIUM ENTREPRISES



## 3 MSME ECOSYSTEM—

SME accounts for 90% of all firms and more than half of all jobs<sup>1</sup>. According to the MSME Act2, the metrics used to define MSMEs include the number of employees, capital, and turnover. According to KIPPRA, an MSME has one to ninety-nine employees, whereas a microenterprise has fewer than ten employees, a small business has 10 to 49 people, and a medium enterprise has 50 to 99 employees.

Kenya has about 7.4 million MSMEs that employ around 14.9 million Kenyans across the economy. Only 1.56 million of the 7.4 million are licensed to operate. The MSMEs are spread across the country, with the bulk located in Nairobi.



The path of MSME sector revitalization may be traced back to the 1999 Kenya Local Government Reform Program (KLGRP), which intended to build applicable policies for poverty alleviation. The KLGRP is divided into three parts: strengthening economic governance, increasing local service delivery, and poverty alleviation<sup>3</sup>.

government launched nationwide reform initiatives like as the Single Business Permit (SBP) and the Local Authority Transfer Fund. The SBP was designed to address the licensing issues that MSMEs experience during the starting phase. Apart from government assistance, international assistance has been provided for the expansion of MSMEs. The IFC and CBK collaborated to create the CRB, which allows non-land assets to be accepted as collateral. The government also established a revolving fund to boost MSMEs' access to financial services. More recently, KEPSA received 2.2M from the NSE to support MSMEs<sup>4</sup>.

Furthermore, the government created the MSME Act in 2012 to help regulate MSMEs. KEPSA, in conjunction with the Corporate Council on Africa, works to help MSMEs gain market access. In addition, KEPSA created an annual supplier diversity summit to educate and influence firms to adopt gender-inclusive supply chains, as well as to connect women- and youth-led or owned MSMEs to development opportunities. Furthermore, in 2015, the government launched the Kenya Industrial Transformation Program (KITP) under the Ministry of Industry, Trade, and Cooperatives to enhance the MSME sector.

<sup>1. &</sup>lt;a href="https://www.worldbank.org/en/topic/smefinance">https://www.worldbank.org/en/topic/smefinance</a>

<sup>2.</sup> https://kippra.or.ke/characteristics-of-kenyan-msmes-relevant-to-the-proposed-kenya-credit-quarantee-scheme

<sup>3.</sup> https://www.kenpro.org/papers/sme-policy-in-kenya.htm

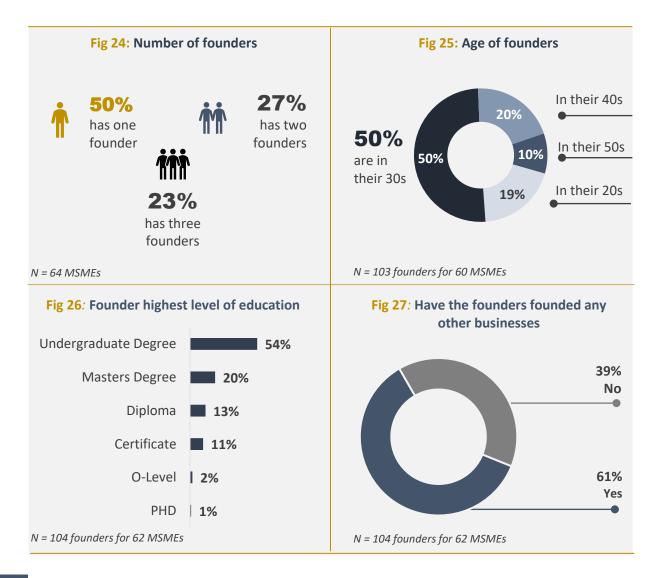
<sup>4.</sup> https://kepsa.or.ke/

#### 3.1 SURVEY FINDINGS

#### 3.1.1 FOUNDER AND OWNERSHIP ANALYSIS

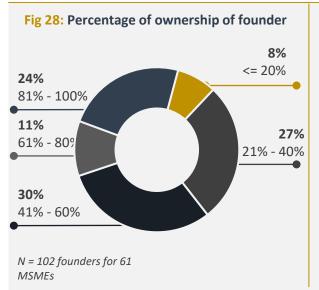
According to the survey, with regards to the ownership characteristics of MSMEs in Kenya, the majority of MSMEs (50%) have one founder, 27% have two founders, and 23% have three founders. 50% of founders in the sample of 66 MSMEs are in their 30s, 19% are in their 20s, and 20% and 10% are in their 40s and 50s, respectively.

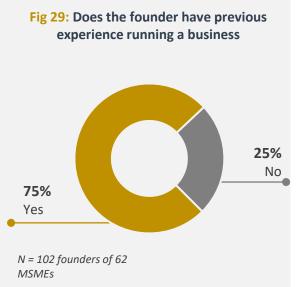
Undergraduate degree holders form the majority of total founders, as 54% of the 66 MSMEs have undergraduate degrees. 20% of founders have a master's degree, 1% are PhD holders, 2% are o-level holders, 11% are certificate holders, and 13% are diploma holders. Out of 104 MSME founders, 61% have founded other businesses, while 39% haven't.

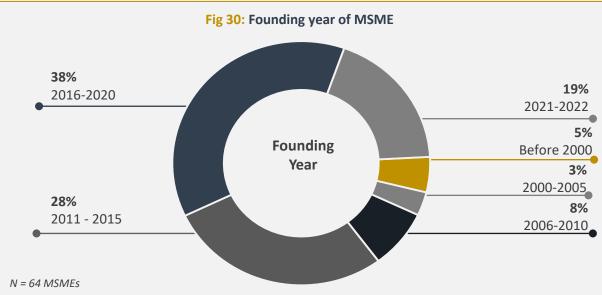


According to the survey, the majority of founders (30%) control between 41% and 60% of their companies. Only 8% hold less than 20% of the companies. A business founder's experience is critical to the success of any business. MSMEs in the study were also evaluated based on the founder's prior experience. According to the survey, 75% of founders have MSME prior business expertise, while 25% have no prior experience.

This survey also studied the age of MSMEs, based on the year of establishment. According to our 64-respondent study, 38% of MSMEs were founded between 2016 and 2020. Prior to 2016, and until 2011, just 28% of MSMEs polled existed. Only 5% of MSMEs are beyond the age of 20. 16% of MSMEs have been in operation for more than 10 years.

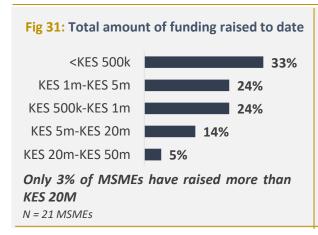


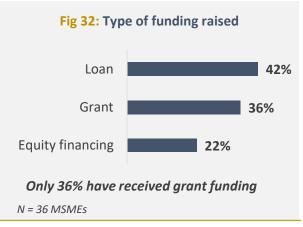




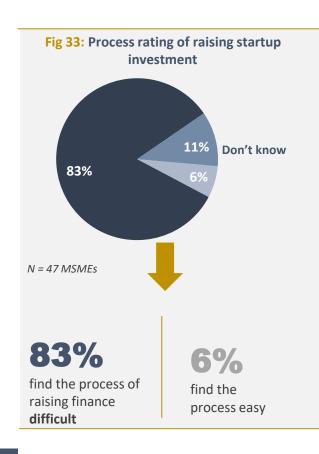
#### 3.1.2 MSMEs FINANCING AND OPINIONS

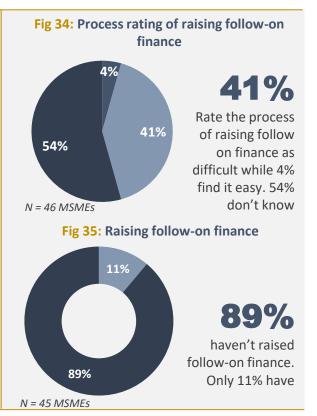
The bulk of Kenyan MSMEs seeking investment have raised less than USD 500K, with only a small minority having raised more than USD 2M. Debt funding is the most popular type of finance, with 42% reporting that they have raised loan capital.



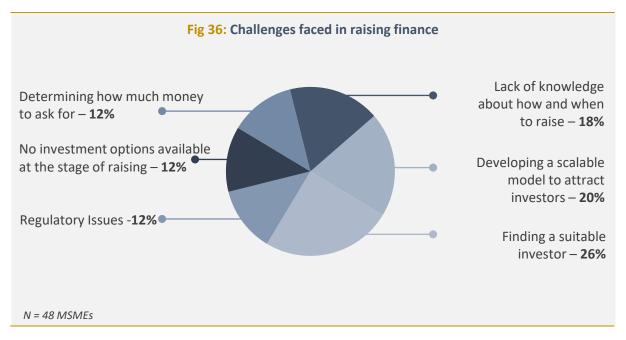


Only 6% said the procedure of obtaining funding was simple, while 83% said it was tough. Only 4% found it simple to obtain follow-up finance. This is consistent with the survey's conclusion that only 11% of MSMEs have raised follow-up finance, while 89% have not.



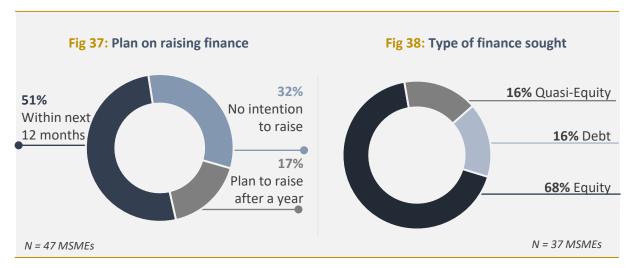


Stakeholders agree that the Kenyan ecosystem is overly dependent **on external sector players, especially concerning startup financing**. There are also concerns about the composition of the founding members of startups that are competitive in resource mobilization. The composition appears too skewed in favour of foreigners. There lies an opportunity therefore, for locals to plug in the opportunity gaps in the ecosystem as may be appropriate.



Despite the difficulty in raising finance, 51% of MSMEs are planning to raise finance within the next 12 months, while 18% plan to do it after 12 months.

However, 32% do not intend to raise any funds. Additionally, equity is the most sought-after type of financing (68%), followed by debt and quasi-equity (16%).



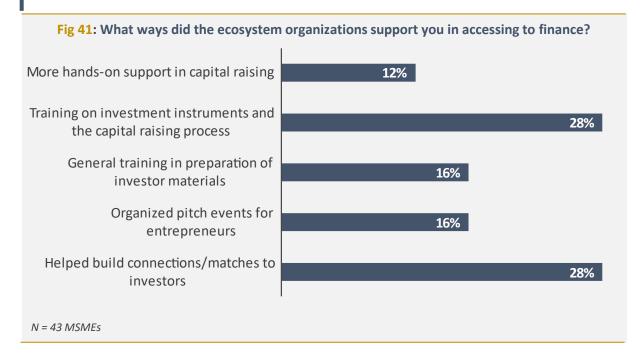
68% of MSMEs plan to raise finance either within the next 12 months or after a year with equity being the most sought finance type.

Investors in SMEs consider many factors when making investment decisions and allocating funds. These factors range from value proposition to market opportunity to financial forecasts to technology and other factors. SMEs in this survey were evaluated on six aspects considered by investors when investing in SMEs. These aspects included the SME's operational sector, business stage, level of investment required, a good management team, cash flow generation, strong business planning, and presentation execution. According to survey results, the top three factors that investors examine are effective management (23%), adequate cash flow generation (22%), and strong business plan implementation (18%).



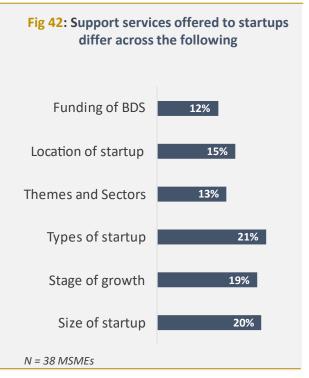
More organizational support should be tailored toward supporting SMEs' access to finance, especially since 71% of responding SMEs say that no ecosystem organization aided them in raising finance. The most common type of assistance provided to SMEs seeking financing was assistance in building connections (28%), followed by training on investment instruments and the capital raising process (28%). The least supported service offered to SMEs in raising finance was hands-on capital raising (12%). Other types of support offered were organized pitch events for entrepreneurs (16%) and general training in preparation for investor material (16%).





Support services offered to startups differed across factors, with SMEs having the opinion that these services differed more depending on the type of startups (21%), as well as the size of the startups (20%). Other factors considered in this study were the stage of growth of the startups (19%), the theme and sector the startups operate in (13%), the location of startups (15%), and funding of BDS (12%). This reflects investor and ecosystem actors' inclination toward startups in the late stages of the business cycle and startups in certain sectors.

More services tend to go towards these more mature and sector-specific startups. Other than support service bias, SMEs were also asked for their views on whether or not startups took advantage of locally and internationally offered services. On these subjects, the majority of opinions expressed disagreement with these statements. SMEs mostly disagree that startups take advantage of local (44%) and international (49%) services. 66% of SMEs disagree that the local ecosystem does not sufficiently meet the needs of local startups.



\*Services offered to startups differ most on basis of size and type of startup reflecting either investors or ecosystem actors biasness towards SMEs of particular type and size.

**Table 4: SME Opinion on local and international offerings to startups** 

Opinion	Agree	Disagree	Neither Agree nor Disagree	
Startups take full advantage of various services offered internationally in the ecosystem	23%	49%	29%	
Startups take full advantage of various services offered locally in the ecosystem	28%	44%	28%	
The local startup ecosystem sufficiently meets the needs of local startups	11%	66%	23%	

N = 35 MSMEs

The government's support for startups is seen as insufficient by the largest majority of SMEs (71%), as only 9% think there's sufficient government support. 21% are indifferent about this subject. The large disagreement reflects the need for more support and collaboration between startups and the government.

Fig 43: Is there sufficient government support for the local startup ecosystem



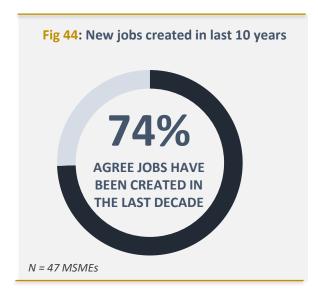
SMEs highlighted some of the policy and regulatory challenges they faced when doing business in the country. The lack of supportive policies was the biggest regulatory setback. This reflects the already inadequate regulatory framework in place in the country.

Other challenges mentioned included over taxation, the high cost of regulatory requirements due to bottlenecks, competition from more established companies, a lack of funding, and corruption.

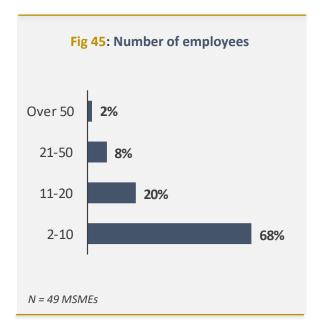
To address these challenges, SMEs suggest more consultations between the county and national governments, the creation of a more enabling environment, capacity building of members, and intensive research. Further, ecosystem actors should ease the process of intellectual property registration and make it less costly. Encouraging startups to sprout more could be achieved by waiving taxes on startups, increasing funding, minimizing the regulatory environment, and setting regulatory frameworks with credit-only lending institutions.

#### 3.1.3 MSME AND EMPLOYMENT

Kenva has over 7.4 million **MSMEs** 14.9 employing approximately million Kenyans in different sectors of the economy. According to the Micro and Small Enterprises Authority (MSEA), the MSME sector created approximately 14.5 million jobs in 20212. Given that the MSME sector is instrumental in iob creation, the survey sought to investigate the number of jobs that have created bγ the MSMEs participated in the survey. There is consensus on the notion that SMEs have created additional jobs in the country in the different sectors they operate in. 74% of MSMEs agree that jobs have been created in the last 10 years, while 24% disagree.

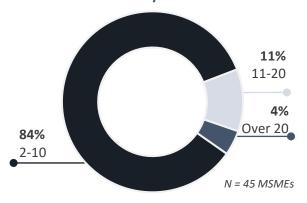


Of the 49 MSMEs responding, **34** (68%) have between 2 and 10 employees, 10 (20%) have between 11 and 20 employees, 4 (8%) have between 21 and 50 employees, and only 1 (2%) has more than 50 employees. This implies that the majority of MSMEs, though they create employment, only do so in a limited capacity. This is reflected in the number of jobs created over the past 10 years.



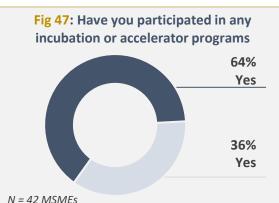
The largest proportion of SMEs (84%) reported that they have only created 2–10 jobs in the last ten years. **Only 4% have created more than 20 jobs** in the last decade, and the remaining have created 11 –20 jobs. Although these numbers could potentially translate to significant impacts on a grand scale considering the total number of SMEs in the country, the impact is still insignificant, especially given the population of Kenya and the number of unemployed youth.

Fig 46: How many jobs has your business created in the last 10 years



#### 3.1.4 MSMEs, INCUBATORS AND ACCELERETOR PROGRAMS

Accelerators help small businesses thrive by guiding founders through focused programs aimed at helping them develop and commercialize their products, as well as grow and operate in the real world. As such, accelerators play an important role in driving innovation. The survey sought to identify the various ways in which accelerators and incubation programs support the development of MSMEs. Participants were asked to rate the services offered by incubators and acceleration programs according to the degree to which they found the services important. Services were split into nine categories: events and network development, business skill development, access to advisory services, mentorship, access to investors, provision of direct funding, access to likeminded entrepreneurs, access to linkages to markets, and the offering of subsidized office space. Of the 42 SMEs that responded to this, only 36% had participated in any incubation or accelerator program.



Of the **36%** that have participated in incubation and accelerator programs, some of the incubation programs they participated in were; KIRDI Incubation, Chandaria Business Incubation, Shelter tech Pangea, Food Africa Pangea, 1Million Startups, Hill Justice Innovations Accelerator Program, KCB Entrepreneur Program, Stanford Seed Program and Megacap.

Table 5: Rate the usefulness of services offered by incubation and accelerator programs

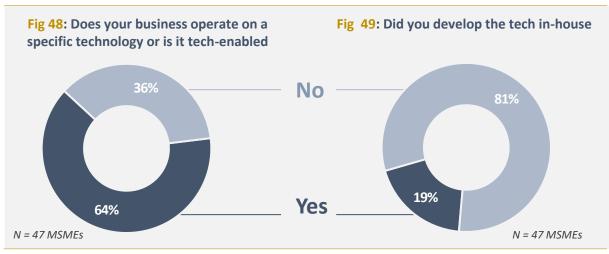
Service Offered	Useful	Not Useful	Don't Know
Events & Network Development	88%	0	12% N = 34
Business Skills Development	84%	0	16% N = 32
Access to Advisory Services (legal, intellectual property and copyright, accounting)	84%	0	16% N = 33
Mentorship	84%	0	16% N = 31
Access to Investors/ Funders	74%	0	26% N = 31
Providing Direct Funding	80%	0	20% N = 30
Access to Like-minded Entrepreneurs	84%	0	16% N = 31
Access & linkages to Markets	79%	0	21% N = 29
Free or Subsidized Office Space	64%	12%	24% N = 33

Some of the services offered by incubation accelerator programs that were considered most useful were events and network development (88%), business skill development (84%), and access to advisory services (84%). The least considered service was free or subsidized office space. This was also the only service rated as not useful by 12% of the SMEs that responded. According accelerator to SMEs. incubators and programs should offer product development, training, marketing assistance, research and development knowledge, mentorship, and funding. There appears to be a good relationship between SMEs and incubators because of their perspectives on incubators and accelerators and their roles in the ecosystem. SMEs think incubation programs are very supportive and vital, especially in giving business fundamentals that aren't immediately apparent.

However, some argue that these incubators are too few and too distracted, and that more awareness should be raised. There opportunities for hubs, donors, exist financiers, and foundations in the Kenyan Startup ecosystem, especially in aspects like legal support, collaboration, and corporation to drive innovation, training and mentorship, business growth, and ICT support. SME opinions on the overall perspective of the entrepreneurial culture Kenyan encouraging. SMEs believe that Kenyans are aggressive and that most Kenyans join the space after failing to secure white-collar jobs. Moreover, there is a feeling that this sector has a lot of potential. Despite these, SMEs think that the culture is limited by factors like the education system, regulatory environment, and corruption.

#### 3.1.5 MSMEs AND TECHNOLOGY

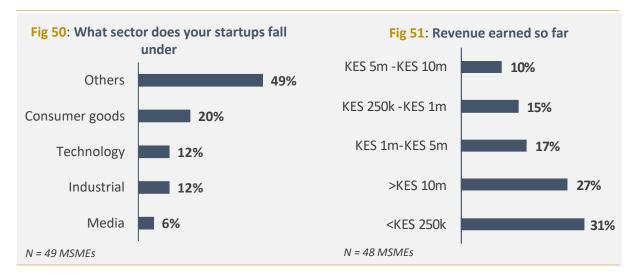
Sixty-four percent of MSMEs (of the 47 responses here) run their businesses on a specific technology or are tech-enabled, while the remaining 36 percent do not. Of the 67% that are tech-enabled, only 19% developed their technology in-house, meaning that the remaining 61% outsourced their technologies.



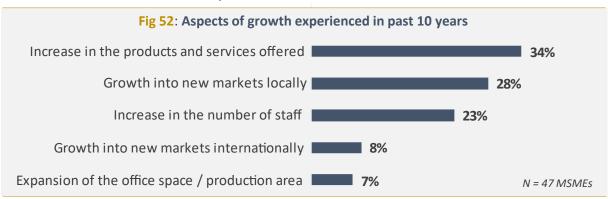
#### 3.1.6 OTHER FINDINGS (SECTOR, GROWTH, REVENUE, LIFECYLE)

Kenyan MSMEs fall under a wide array of sectors; this survey grouped sectors into 5 (consumer goods, industrial, media, technology, and others). 20% of MSMEs (from 49 respondents) operate in the consumer goods sector. Only 6% are in the media sector. The largest majority are in other sectors (food processing, retail, business support, agri-business, etc.).

Revenue analysis of MSMEs reveals that the largest percentage (31%) of MSMEs have made less than KES 250,000 since they were founded. 27% have made it past the KES 10M revenue, and 10% have made between KES 5M – 10M. The remaining 17% have earned between KES 1 and KES 5M. These findings are from 48 responding MSMEs. On the basis of the business life cycle, most MSMEs are in the growth and expansion stage (36%), with only 7% being in the maturity and possible exit stage. 16% are in the development and launch stage, while the remaining 36% are in the early stage.



SMEs cite different aspects of growth experienced in the last 10 years, from growth into new markets locally and internationally to the expansion of office space and an increasing number of branches, among others. The most experienced aspect of growth was an increase in products and services offered, while the least experienced was an increase in the number of branches.



#### 3.1.7 CHALLENGES

Other than funding and access to finance, the survey also sought to find out how other factors affected the operations of MSMEs in the country. Investor-friendly legislation, corruption, tax rates, tax administrations, legal process, labour regulations, and digital payment mechanisms were also considered. Of these challenges, those that scored highly among MSMEs (those considered to be major obstacles) were investor-friendly legislation (97%), corruption (97%), tax rates (92%), and legal processes and costs of setting up a business (94%).

The top four factors considered obstacles to the operations of MSMEs are mainly policyrelated. This shows the urgency with which the government needs to implement policies to guard against these aspects. These percentages represent the degree to which these factors are considered an obstacle in the operation of the MSME ecosystem. The lowest-ranked obstacle was digital payment mechanisms. where 59% considered it an obstacle while 41% felt **otherwise.** The results of these factors have been tabulated in the table that follows in descending order.

Table 6: Degree to which elements of the policy and business environment are an obstacle to current operations of MSME

Factor	Obstacle	No obstacle
Investor friendly legislation	97%	3% N = 35
Corruption	97%	3% N = 34
Legal processes and costs of setting up a business	94%	6% N = 32
Tax rates	92%	8% N = 33
Legal processes and costs of setting up a business	91%	9% N = 36
Tax administrations	91%	9% N = 29
Practices of informal sector competitors	91%	9% N = 29
Laws and processes for foreign investment in startups	87%	13% N = 24
Availability of market information	83%	17% N = 32
Labour regulations	81%	19% N = 31
R&D initiatives and University collaborations	76%	24% N = 34
Digital payment mechanisms	59%	41% N = 35

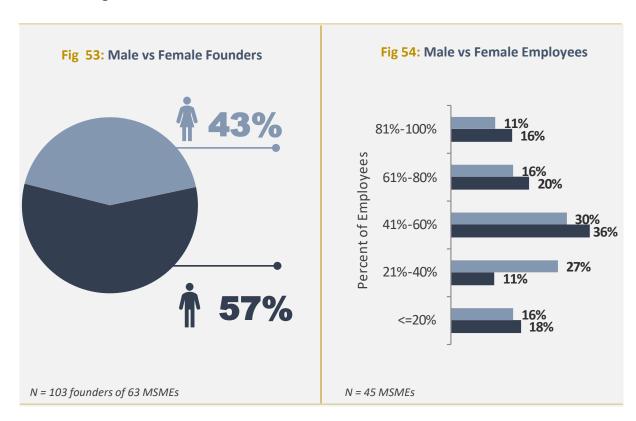
From the table, it can be deduced that among the top challenges faced by MSME operations in the county (Investor friendly legislation, legal processes, and tax rates) are policy-related issues. There lies a gap therefore in policy formulation to improve on areas such as tax administrations and investor-friendly regulations.

#### 3.1.8 MSME – THE GENDER LENS

The distribution of MSMEs by gender is an important factor. According to the MSME Survey report of 2016, 47.9% of licensed businesses were owned by men, while the remaining 31.4% were owned by women. Jointly owned MSMEs made up 2.7% of the total. Further, of all unlicensed MSMEs, 60.7% are wholly owned by women<sup>1</sup>. The Gender Gap Report 2021 ranks Kenya 95th out of 156 countries in terms of the gender gap<sup>2</sup>. The quantitative data gathered agrees with these figures.

57% of the respondents were male founders, while 43% were female founders. According to the World Bank statistics of 2021, females form 49.2% of the total labour force.

36% of MSMEs report that 41-60% of their employees are female, while 30% report that 41-60% are male.



<sup>1. &</sup>lt;a href="https://statistics.knbs.or.ke/nada/index.php/catalog/69">https://statistics.knbs.or.ke/nada/index.php/catalog/69</a>

<sup>2. &</sup>lt;u>https://www3.weforum.org/docs/WEF\_GGGR\_2021.pdf</u>

#### 3.2 GAPS, CHALLENGES & RECOMMENDATIONS



#### **GAPS & CHALLENGES**

- The sheer number of unregistered SMEs makes documenting and regulating the sector difficult. This disparity is exacerbated by the country's low number of licensed MSMEs (1.56 million) in comparison to the total number of MSMEs (7.41 million)
- The process of raising capital, both initial and follow-up, is tough for SMEs. This may have an impact on their performance because a lack of capital inhibits scaling and profitability. Due to a shortage of capital, the country would see a large number of SMEs that do not contribute much to the GDP
- Because it is difficult for SMEs to obtain suitable investors, there is a need to train SMEs to establish scalable business models to help attract investors, as investors can only finance enterprises that they believe have potential
- The proportion of women who start their own businesses is still fairly low. More initiatives should be launched to entice women to join SMEs and become founders

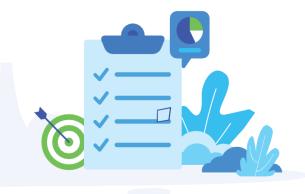
#### **RECOMMENDATIONS**



- Pushing for agreements between financial institutions and BDS providers can help compensate for a lack of capacity while also lowering costs through a more efficient division of labor
- Solidarity among banks, particularly in the establishment of inter-bank financing to pool money for investment in SMEs, should be considered a viable option in reducing the additional risk of lending to SMEs. This will address the dual concerns of speeding access to credit and reaching the unbanked at the same time
- Creating incentives for women-founded SMEs, such as finance or other types of assistance. Furthermore, successful female entrepreneurs should assist younger founders
- Developing investor-friendly legislation, particularly in terms of policy for investors looking to engage in SMEs, is critical since SMEs consider a lack of investor-friendly legislation as the most significant impediment to their operations

### 2.3 KEY FINDINGS





#### KEY TAKEAWAYS

- MSMEs make up a larger share of the country's business environment, accounting for more than 90% of all enterprises and more than 50% of employment. Kenya has around 7.4 million small and medium-sized businesses (MSMEs), which employ approximately 14.9 million Kenyans across the economy.
- Approximately 400,000 micro, small, and medium-sized businesses have failed during the first year of operation, raising concerns about the sustainability and support provided.
- Male entrepreneurs continue to outnumber female entrepreneurs as MSME founders, according to the 2016 MSME Survey report, with 47.9% of licensed enterprises owned by men and 31.4% owned by women.



- Policy issues (corruption, the legal costs of starting and running a firm, investor-friendly legislation, and tax rates) are discussed.
- Investor-related difficulties are the most significant impediment to MSMEs receiving capital. When it comes to raising capital, the majority of companies confront the issue of building investor-friendly business models and finding acceptable investors. This requires the creation of education programs for MSME founders as well as interactive sessions between investors and founders.

4

## HUBS, INCUBATORS & ACCELERATORS











#### HUBS-

Incubators, Accelerators, and Hubs provide a one-stop shop for financial and business development services. As a result, it is especially efficient in reducing the amount of time and money company founders must dedicate to obtaining assistance. Most incubators include training, investor networking, mentoring and coaching, and other financial services. Some provide work and meeting space, which is especially useful for early-stage firms who cannot afford to hire an office space. These services have the overall effect of lowering the expenses connected with corporate formalization procedures.

Since the establishment of iHub and MLab in 2010, there has been a considerable increase in the number of hubs, incubators, and accelerators in Kenya, owing to a profusion of venture funds, development capital, corporate equity, private equity, and a growing innovative community.

Kenya is one of the four African countries in the innovation quadrangle, according to the GSMA<sup>1</sup>. There are over 40 hubs registered under the Kenya Association of Tech Hubs and over 50+ accelerators, incubators, and hubs in Kenya<sup>2</sup>. The Association of Startup and MSME Enablers of Kenya (ASSEK) has 45 registered hubs. In 2018, the government planned to set up 1,160 Constituency Innovation Hubs as part of the Ajira Digital Program<sup>2</sup>. National Government Constituency Development Fund Board in collaboration with the Ministry of ICT rolled out constituency innovation hubs projects over the past 4 years.

The project was intended to create at least four innovation hubs in each constituency across the country. There are currently around 239 constituency innovation hubs located across the country that give working places for adolescents to innovate and work. The project's goal is to help entrepreneurs in all 290 constituencies by offering free internet, training, and workspaces so that the public can access online jobs and information for decision-making.

Incubators are being forced to broaden their product offerings due to rising demand and startup needs. Africa had 643 hubs<sup>3</sup> (39% had elements of a co-working environment, 14% were accelerators, 24% were innovation hubs, and 41% were incubators) by 2019, an average growth of 53% per annum from 117 in 2015, and this growth is anticipated to continue with the explosion of startups in Africa.

Afrilabs, a pan-African hub network grew their labs to 340 in 52 countries in Africa, Afrilabs partnered with the Association of Countrywide Innovation Hubs to support peri-urban and rural innovations<sup>3</sup>.

According to the Startup Ecosystem Report by Enpact Data Lab<sup>4</sup>, "Hubs scores low, but ranks well compared to the region."

"Technology hubs, incubators and networks of mentors have not yet reached a professional and critical mass level and thus do not fully play their role as catalysts in the African startup scene" - Africa Development Bank<sup>5</sup>

5.

<sup>1.</sup> https://www.gsma.com/mobilefordevelopment/blog/618-active-tech-hubs-the-backbone-of-africas-tech-ecosystem/

<sup>2.</sup> http://www.parliament.go.ke/sites/default/files/2018-11/Report%20from%20NG-CDF%20Digital%20Innovation.pdf

<sup>3. &</sup>lt;a href="https://afrilabs.com/afrilabs-and-association-of-countrywide-innovation-hubs-kenya-sign-mou-to-support-grassroots-hubs/">https://afrilabs.com/afrilabs-and-association-of-countrywide-innovation-hubs-kenya-sign-mou-to-support-grassroots-hubs/</a>

<sup>4. &</sup>lt;a href="https://www.enpact.org/wp-content/uploads/2019/08/print-nairobi.pdf">https://www.enpact.org/wp-content/uploads/2019/08/print-nairobi.pdf</a>

https://www.technopolis-group.com/wp-content/uploads/2020/02/Potential-of-the-fourth-industrial-revolution-in-Africa.pdf

Collaborations and partnerships are required to strengthen the growth support services provided to startups and MSMEs. ASSEK, for example, has signed a memorandum of understanding with ICT Norway and PANGEA Accelerator to support capacity building and information transfer to local entrepreneurs.

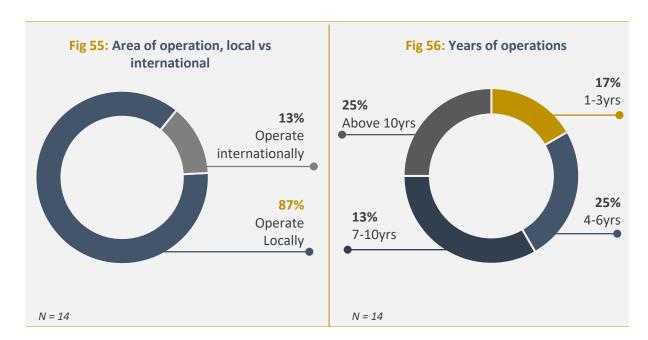
During the Covid-19 pandemic, ASSEK also formed a relationship with GIZ to provide help to entrepreneurs. It is presently collaborating with the Kenya Industry and Entrepreneurship Project (KIEP) to expand its role in the innovation ecosystem.

Several multinational accelerators, including Combinator. 500 Startups, Bootcamp, Catalyst Fund, GSMA Innovation Fund, Google for Startups, and Alibaba's African Business Heroes, have been active in Kenya in recent years. Google and Startup Wise Guys have expressed interest and extended their presence in Kenya as part of an effort to promote 10,000 African companies. Several of them have onboarded Kenyan firms that have gone on to raise substantial sums of funding, such as Market Force, which finished the YC program in 2020; Kidato, which was admitted in 2021; and Boya, which went via the Catalyst Fund and Endeavor.

#### **4.1**

#### **SURVEY FINDINGS**

Majority of accelerators and hubs that responded had local operations (87%), with only 13% having international operations. This reflects the large number of local accelerators operating in the country. In terms of the number of years of operation, the largest proportion of Accelerators has been in operation for between 4 and 6 years and above 10 years. No accelerator has been operating for less than a year. This could be an indication that new accelerators aren't sprouting up fast enough to meet the demands of the growing number of startups.



#### **4.1.1 IMPACT ON FORMATION OF STARTUPS**

Depending on the purpose of the hub, accelerators and hubs can help companies in a variety of ways. Sote Hub and SOMO offer entrepreneurial training, while others (Nairobi Garage and Mombasa Works) offer co-working and office space. Villgro Africa and Chandaria Business Center assist entrepreneurs in certain sectors, such as agriculture, in finding suitable investors (Villgro Africa). The Chandaria Innovation and Incubation Center prepares startups for market competitiveness through innovation, whereas others, such as SNDBX, bring together various professional services to assist entrepreneurs and MSMEs in growing their enterprises.

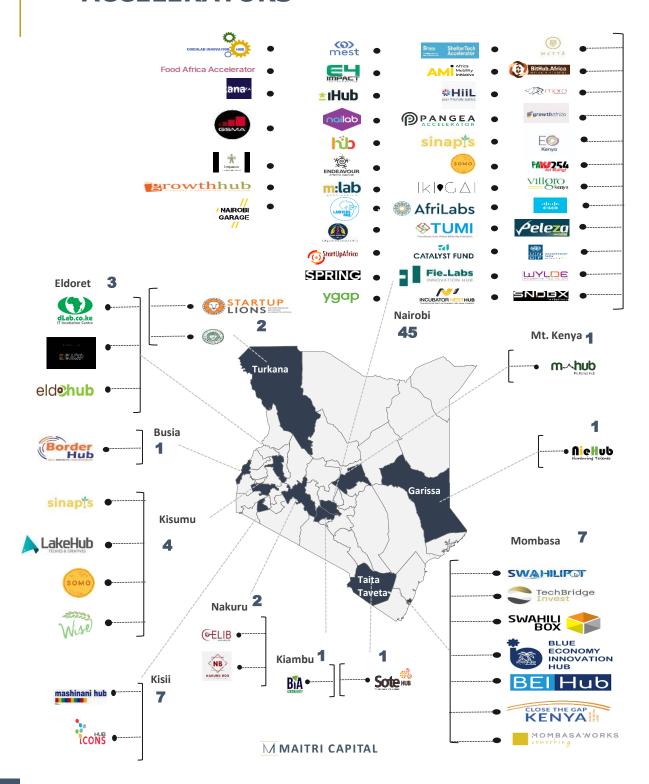
More startups have emerged as a result of the combination of these support structures and services. Hubs and accelerators that took part in this poll reported varying results in terms of the number of businesses generated through their various programs. The impact varies in terms of the number of startups that emerge, ranging from 20 to 900+. Each Accelerator and hub's influence has been summarized and displayed below.

Fig 57: Number of Startups that have emerged due to support services



#### 4.2

#### KENYA HAS 74+ PRIVATE HUBS & ACCELERATORS



#### **SUMMARY OF FINDINGS FROM THE SURVEY**

A total of 15 hubs, as well as ASSEK, were interviewed. Furthermore, the report contains perspectives from accelerators and incubators. The study, however, discovered that there was no clear distinction between incubators, accelerators, and tech hubs. The investigation discovered that the three players' roles and behaviors were intertwined. Conversely, it was found that accelerators supported entrepreneurs with new, unproven, interesting concepts, whereas incubators supported companies that were already making money but needed assistance. Many startups lacked a technological component and might be classified as MSMEs under the conventional approach. All three actors were active in the provision of collaborative workspaces and competence-building centers with an emphasis on knowledge and capacity building, scaling up, promotions, and connections with other participants, industry, and advisers.

Some of the observations and changes experienced by accelerators in the past 10 years include: Early startups have found it difficult to raise funding because they are "brutal in the process of starting the startup and finding a market for their products."

- 1) The arrival of 3G and fiber optics, which democratized the internet, resulted in the rise of hubs and innovation centers.
- 2) Over the last decade, hubs have become more sector-specific. agriculture, circular economy and health.
- 3) Proliferation of venture capital growth, as well as the rise of locally owned funds and founders that have previously raised capital to invest and collaborate with startups.
- 4) Rise in hackathons and applications, demo days, technology and impact conferences such as Sankalp, which has been run by Intellecap, fintech firms, and other organizations
- 5) Decentralization of innovation venues, with many business founders headquartered in accelerators seeking assistance abroad (e.g., Catalyst Fund, GSMA, innovation labs created by the UN, etc.)
- 6) Many startup founders also run other side hustles to make ends meet and therefore do not have the focus on getting their startup off the ground, thereby leading to failures
- 7) Kenyan startup founders need to shout out their successes to encourage other innovators and entrepreneurs and speak more about their journeys.
- 8) There has been a considerable surge in youth-led businesses; yet, in most cases, this poses a barrier in securing meaningful finance because the founders are not judged to be experienced enough.
- 9) There has been a misalignment of expectations from both donors and recipients.
- 10) Many local and international VCs are talking to hubs to find deal flow.
- 11) Costs are subsidized by donors for both hubs and startups
- 12) It was noted there are few women only focused hubs such as AkiraChix, however many hubs run women-focused programs with inter-collaboration between the hubs

#### 4.3

#### **GAPS, CHALLENGES & RECOMMENDATIONS**

Many of the hubs, accelerators, and incubators in Kenya are less than 5 years old and do not have the track record or know-how gathered through experience. The presence of early-stage hubs in the ecosystem indicates that there are significant opportunities for learning and development to build effectiveness, be self-sustaining and successful, and have longevity.



#### **GAPS & CHALLENGES**

- Many co-working spaces have unsustainable financial models, which could be challenged if reviewed in a few years. The lack of continuous capital to run the hubs makes them unsustainable without funding, most of which comes from donors
- Lack of data or unwillingness to provide data on the measurement of cohorts' impact, success, and failure rates. Developing robust systems and enforcing this into the DNA of a hub would enable the wider community to understand the effectiveness of the hub
- Many startups in hub programs have poor growth rates, as do some of the hubs themselves, due to the low number of startups moving through the hubs
- Lack of capacity at the hubs in terms of funding, adequate skills, and high calibre of operators and the need to recruit talent into and upskill the management of hubs and startups
- Even though the startups are well distributed, mentors do not have enough time for them, reducing the effectiveness of the programs

#### **RECOMMENDATIONS**



- Building a community that can support startups (internally and externally), build partnerships with the government, other hubs locally and internationally, academia, donors and investors, and subject matter experts to act as intermediaries and navigate gaps
- Ability to provide linkages and encourage the building of key management and founding teams in startups that are well balanced in skill sets and compatibility
- Building partnerships with mentorship programs that can be paid for or donorfunded to attract high-quality mentors
- Hubs need to have their programs independently audited, reviewed, and critiqued through a 360-degree process by advisors, investors, and startups to ensure they are effective
- An increase in automation of services and outsourcing to industry experts may decentralize the manpower needed within the hubs and encourage a larger number of startups to be admitted



#### **GAPS & CHALLENGES**

- Many of the hubs' infrastructure is inadequate, ranging from experienced employees to the ability to provide the service that the company truly requires to connections to capital, industry, and advisors, reducing the hub to little more than co-working spaces
- Capability to coordinate and partner with government, funders, investors, and other ecosystem stakeholders in order to adequately and successfully deliver the hub's mandate
- There are no defined program design components in hubs and accelerators that address the gender financing gap among companies
- The incubator and accelerator model seems to promote a very exclusive kind of entrepreneurial support, giving only the most promising companies access to support services and leaving other founders empty-handed
- Most hubs, incubators, and accelerators are young organizations that frequently lack stability, particularly in terms of financial sustainability and technological offerings. Many hubs do not survive their initial stages, finding it difficult to be sustainable in their own rights

#### **RECOMMENDATIONS**



- Capability to develop novel funding mechanisms, such as loan guarantees, revenue shares, and equity models, to help promising firms
- Hubs could develop more ways to solve the gender financing gap, such as shifting from startup-eccentric (measures to influence startup behavior) to investor-centric tactics (strategies influence investor behavior). Hubs should devise measures to reduce investor bias and risk perception
- More inclusive hubs, accelerators, and incubation programs can be built by creating an equilibrium of incubators and accelerators targeting different entrepreneurial stages as well as distinct target groups to aid in the transition to startup growth
- To keep the hubs running, strengthen the creation and implementation of business models that identify revenue streams. A capacity-building training program for incubators and hubs is a first step in this approach. This contributes to the hubs, accelerators, and incubators' organizational viability
- Partnerships with mainstream and digital media to improve the visibility of the hubs and the startups that work with them



- The majority of accelerators and hubs that responded to the study had local operations (87%), demonstrating that sector support organizations like hubs, accelerators, and coworking spaces are helping to create Kenya's startup ecosystem.
- In Kenya, accelerators, incubators, and hubs are developing platforms that enable investors to identify startups with scalable businesses.
- The startup environment is shifting from the capital city to the devolved units, with over 239 constituency innovation hubs established across the country that provide working places for youths to develop and work. As a result, an inter-county collaboration structure is required to ensure skill transfer within and across counties.
- There is a lack of a consistent pipeline of quality, high-potential startups emerging from the hubs that have the potential to produce unicorns capable of transcending geographical markets with successful solutions.
- Training programs for capacity building on investment instruments, scalable business models, and capital raising processes that attract investors remain a significant challenge to Accelerators, incubators, and hubs in the Kenya startup ecosystem.
- There is a **challenge in quantifying the impact of hubs**, accelerators, and incubation programs and the quality of their programs.
- 7 Hubs, co-working spaces, and accelerators need to create **sustainable business models** that increase their chances of survival.
- **Financial sustainability of hubs should be a priority** area for government and other players especially given thar public and private donor funds for entrepreneurship promotion are limited.

## ACADEMIC INSTITUTIONS







#### ACADEMIA

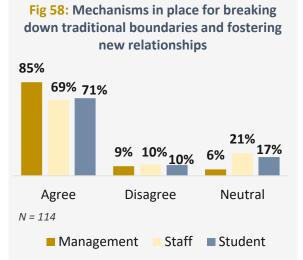
Universities in Kenya are critical stakeholders in the ecosystem, capable of providing ideal breeding transformation ground for research, innovation, entrepreneurial and capacity building. More emphasis has recently been placed on the benefits of entrepreneurialfocused education at Universities, which provides students with the confidence to convert ideas into reality. These could be formal mentorship programs, brief courses, or other types of training. Universities are often not industry-specific, making them an excellent place to launch a new venture. Universities integrate sciences humanities, giving them the ability to catalyze entrepreneurship in many sectors.

"Over the past two decades, there have been growing calls for universities to become more accountable to the wider public and to contribute directly to local, regional, and national economic development through taking on a range of "third mission" activities such as incubation of startup firms, research commercialization, knowledge transfer, partnerships, and providing entrepreneurship courses<sup>1</sup>" Joe Mucheru - ICT, Innovation and Youth Affairs Cabinet Secretary

Some of Kenya's largest academic institutions, Strathmore University's iLab Africa (est. 2011), Kenyatta University's Chandaria Business Innovation and Incubation Centre (est. 2013), Nailab, and the University of Nairobi's C4DLab (est. 2013), established incubation centers more than a decade ago.

The ability to identify talent and provide them with resources, key partnerships, linkages with businesses, funding, advice, and other services to enable the commercialization of an idea would be a game changer, spurring a shift in mindset from job seekers to job creators.

Kenya is faced with a high number of graduates being unemployed, which is attributed to weak academic-industry linkages<sup>2</sup>. However, universities are working to address this gap.



85% of university management agree that the universities have mechanisms in place for bringing stakeholders together and building synergies, while more students seem to agree at 71% versus 69% for management

With around 562,000<sup>2</sup> students enrolled in 2021/2022, focus on these graduates being adequately skilled to empower them for entrepreneurship is critical to achieve Sustainable Development Goals.

<sup>1. &</sup>lt;a href="https://www.kenyanews.go.ke/cs-mucheru-challenges-universities-to-establish-business-hubs/">https://www.kenyanews.go.ke/cs-mucheru-challenges-universities-to-establish-business-hubs/</a>

<sup>2. &</sup>lt;a href="https://unesdoc.unesco.org/ark:/48223/pf0000381538">https://unesdoc.unesco.org/ark:/48223/pf0000381538</a>

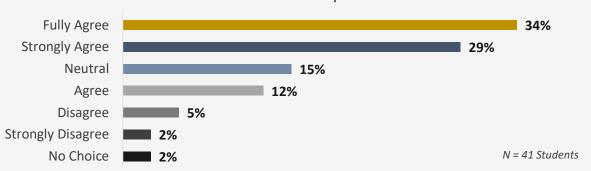
<sup>3.</sup> https://www.statista.com/statistics/1135785/university-enrollment-in-kenya/

#### **5.1**

#### **SURVEY FINDINGS**

There were 114 participants from various Universities and Colleges across the country with 34 management personnel, 39 staff members and 41 students having responded to the survey.

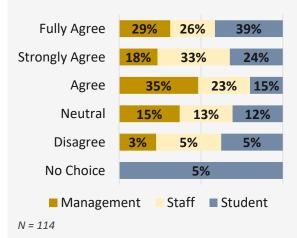
Fig 59: Entrepreneurship integration as a major part of the University's mission and strategy from Students Perspective



75% of students agree that universities are keen on integrating entrepreneurship as part of the University's mission. Only 24% of the students do not agree or are neutral

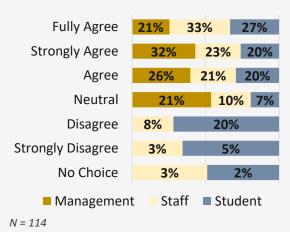
As indicated in the discussion below, various stakeholders in universities have mixed opinions, implying that there is a need to increase entrepreneurial learning and assistance within universities.

Fig 60: The universities are active in developing initiatives and programs that drive entrepreneurship development in the wider regional, social and community environment



**22%** of the students feel that universities are not active in developing initiatives and programs that drive entrepreneurship

Fig 61: Entrepreneurial behavior is strongly supported throughout the university experience; from creating awareness and stimulating ideas through to development and implementation



**34%** of the students feel that entrepreneurial behavior is not adequately supported by universities

Industry, academia, and incubator linkages are being strengthened globally to attract talent and encourage research and collaboration. Some of Kenya's academic institutions have partnered with top academic institutions and corporates that can provide knowledge sharing, skills enhancement, and mentorship to build local capacity, for example, Strathmore has partnered with MIT's Global Startups Lab, with Oracle to work on Africa Media Hub, Yale-Strathmore Leadership Forum in 2018 among others.

Table 7: The Universities have strong links with incubators, science parks and other external initiatives, creating opportunities for dynamic knowledge exchange

	No Choice	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Fully Agree
Management	0%	0%	3%	24%	26%	18%	29%
Staff	0%	8%	10%	18%	36%	13%	15%
Student	5%	7%	5%	10%	12%	32%	29%

N = 114

28 % of the universities management and staff either disagreed or were neutral on the linkages between universities and other initiatives for creating opportunities and knowledge exchange.

Table 8: The Universities actively encourage individuals to become entrepreneurial

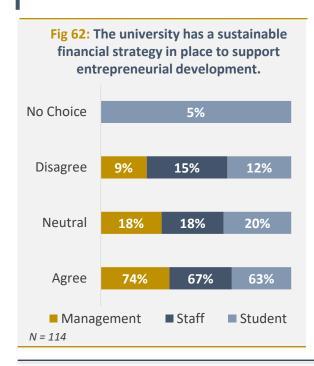
	No Choice	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Fully Agree
Management	0%	3%	6%	38%	32%	12%	9%
Staff	5%	5%	15%	38%	15%	5%	15%
Student	5%	5%	5%	10%	17%	32%	27%

N = 114

Only 35% of the staff felt that the university encourages individuals to fulfil their entrepreneurial interests, 63% of staff took the view that universities actively raise awareness of the value/importance of developing entrepreneurial abilities amongst its staff and students

Most academic institution labs, incubators, and hubs are headed by highly trained academic employees; nevertheless, their experience working in industry or business is limited. This limits their ability to appropriately mentor company founders and students unless they collaborate with industry partners. To ensure the effectiveness and longevity of such programs, it is necessary to improve skill sets and engage key individuals from the global business sector to give mentorship and guidance, as well as to increase capacity inside universities.

Budget constraints for academic incubators and hubs have an impact on the degree and caliber of management within these centers. Many of the incubators and hubs are run on a shoestring budget and are sponsored by donors (DFIs, family offices, impact investors). Organizations such as USAID and The Mastercard Foundation, among others, have increasingly allocated increased resources to support youth employment and leadership development.



There was widespread agreement among management, staff, and students that universities had sustainable funding policies to foster entrepreneurial development, with management having the highest level of agreement (74%), followed by staff (67%). The personnel were the most divided, with 15% disagreeing on the viability of the university's financial approach. 20% of the pupils were agnostic about the subject. Despite the survey's findings, there is still a significant financial shortfall in Kenyan universities, particularly in research and innovation. Despite the rising mainstreaming of science, research, and technology, as well as the emphasis on the role of universities in innovation, research. supporting competitive development, this remains the

Table 9: The universities entrepreneurial objectives are supported by a wide variety of funding sources/investment, including investment by external stakeholders

	No Choice	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Fully Agree
Management	0%	3%	9%	26%	35%	18%	9%
Staff	3%	3%	13%	21%	28%	15%	18%
Student	5%	2%	10%	7%	24%	22%	29%

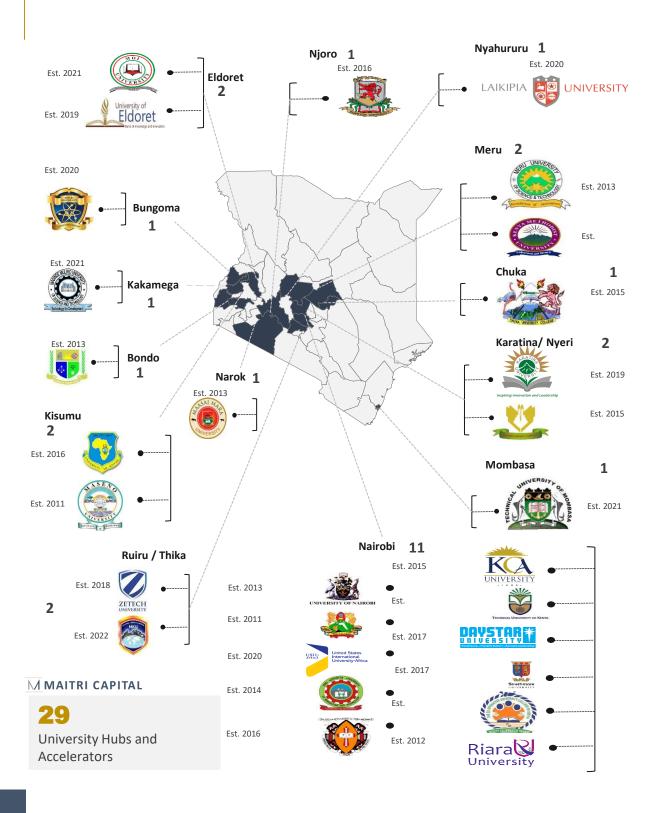
N = 114

61% of staff and 62% management indicate that they agree that there are a wide variety of funding sources including external sources available to promote entrepreneurship within universities

Universities in Kenya are involved in innovation, with a number of them applying for patents with the Kenya Industrial Property Institute (KIPI), the body established to register and grant patents in Kenya. As established in the Industrial Property Act No. 3 of 2001 that established KIPI, the inventor has the right to the patent. When the inventor is an employee who used data or resources available during employment, that right is established with the employer. The Kenyan laws on patents state that "a person has a right to equitable remuneration, taking into consideration his salary and the benefit derived by the employer from the said invention," in the event the invention is of "exceptional importance" (Industrial Property Act, ss. 30(1) and 32(1)).

The administration and remuneration provisions are established through institutional intellectual property policies, which a number of universities in Kenya have in place. These policies also offer guidance on commercializing innovation. Many students and innovators sign up for academic incubators and hubs for this reason.

#### 5.2 UNIVERSITY HUBS & ACCELERATORS



#### **5.2**

#### GAPS, CHALLENGES & RECOMMENDATIONS



#### **GAPS & CHALLENGES**

- Lack of data or reluctance to give data on cohort success and failure rates within university hubs. Enforcing this into the DNA of a hub would allow the general community to understand the hub's effectiveness beyond its role as a training organization
- o Many incubators and hubs lack the capacity to provide particular advise such as digitalization skills, market channels, and the ability to provide unbiased counsel in comparison to other products or similar solutions on the market. The inability to give adequate support for innovations is sometimes due to a lack of network or muscle to push the startup
- Inadequate access to funding from domestic and international venture capital, domestic and international debt sources, grant makers, angel investors, and corporations
- Concentration on agriculture, education, FMCG, and business-led programs, primarily within certain universities. Many of these were concerned with economic activity in the surrounding area
- Many of the founders have the outlook of a traditional business with an innovative product that lacks commercialization and uptake, or a product or service without the high scalability factor that is vital to being classified as a startup

#### **RECOMMENDATIONS**



- Fostering strong collaborations and relationships with external knowledge sharing hubs, boosting access to resources with other universities or institutes of higher learning that support entrepreneurs, and involving and buying in earlier on
- O Attracting a wide variety of skill sets from different industries, enhance mentorship opportunities with key business leaders, and provide access to workshops with top universities, hubs, and individual market leaders. Organize conferences, bootcamps, pitch days, demo days, hackathons, and competitions to create an effective feedback loop.
- Building the internal ability of current leaders to operate the centers and hubs effectively and sustainably
- Building intellectual property rights capacity with access to the top legal community. To provide proper feedback loops, strong relationships with software engineers and developer communities in Kenya and throughout the world are required
- Improving the ability to recognize disruptive ideas. Capability to admit external students into incubation centers on a case-by-case basis



#### **GAPS & CHALLENGES**

#### **RECOMMENDATIONS**

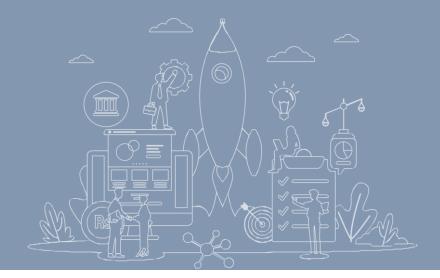


O Universities are suffering from a lack of strong pro-entrepreneurship orientation, particularly in leadership and administration. This is due to the fact that entrepreneurship is frequently regarded as a third goal for most colleges, with poor ties to the university's fundamental objective

- Developing system of entrepreneurship incentives and rewards. Make monitoring and evaluating the effects of entrepreneurship support on graduates' entrepreneurial conduct mandatory. Funding should include a variety of including university elements, involvement in entrepreneurship as well as traditional indicators such as student enrollment. Guidelines for promotions and employment could be amended to put more weight to entrepreneurship when making these decisions
- Implementation of dynamic entrepreneurial education that takes into account current knowledge and practical company needs. For this to be a success, there should be frequent feedback meetings with members of the business community, including students and alumni entrepreneurs

#### KEY TAKEAWAYS

- There has been an increase in calls for colleges to take on programs such as startup business incubation in order to become more accountable to the general public and actively contribute to local, regional, and national economic development.
- Academia and universities should develop more cohesively aligned processes to support institutional innovation and research.
- Strong connections and contacts with externally located successful knowledge transfer hubs are essential, as is increased access to resources at other universities or institutes of higher learning that support entrepreneurs.
- Inadequate operational finance impedes university centers, limiting their ability to foster entrepreneurs. Organizations such as USAID and the Mastercard Foundation, on the other hand, are allocating more money to promote university hubs.
- The number of university hubs being established in the country at various universities has increased. The country currently has over 29 university hubs, with Mount Kenya and Catholic University being the most recent to build their hubs.





6

## GOVERNMENT







## GOVERNMENT-

The Kenyan government has played a key role in signalling its support for the development of the country's startup ecosystem by supporting the creation of supportive acts and laws for startups. The introduction of 3G Internet in 2010 by the Kenyan government was instrumental in catalysing an explosion of the sector and coincided with the mushrooming of technology hubs that were the hallmark of the sector's development.

Through the Kenya National Digital Master Plan 2022–20321, a progression from the ICT Master Plan of 2014–2017, the government aims to streamline the interoperability of the country's technology assets and government programs. A focus on the development of policy, legal and regulatory frameworks, research and development, information security, cyber management, and emerging technologies is highlighted. The financial resources required to execute the master plan amount to KES 484.2 billion (USD 4 billion or GBP 3.5 billion).

The National Digital Masterplan is intended to be implemented through an oversight committee chaired by the President, subordinating to an inter-ministerial steering committee, the ICT authority thereafter, and filtering down to the individual ministries.

The synergies between the Governmental bodies and other agencies that support the ecosystem. The following are some of the important institutions and agencies with which the government collaborates:

- The Kenya National Innovation Agency (KENIA) is mandated to develop and manage the national innovation system through the Digital Innovation Enterprise and Digital Business pillars.
- 2) The KONZA Technopolis Development Authority (KOTDA), launched by the Government as an initiative of vision 2030, to create a smart city by building digital infrastructure, services, data management, skills, innovation and entrepreneurship.
- 3) The National Commission for Science, Technology, and Innovation (NACOSTI) regulate and assure quality as well as act as an adviser to the government in matters thereto.
- 4) The Kenya National Spatial Data Infrastructure (KNSDI), a national initiative that strives to provide better access to spatial data for better analysis and decision making.

<sup>..</sup> https://cms.icta.go.ke/sites/default/files/2022-04/Kenya%20Digital%20Masterplan%202022-2032%20Online%20Version.pdf

Achievement highlights from the National Digital Master Plan from 2014 show that impact on the startup ecosystem includes the development of 8,900 km of fibre optic infrastructure and digital skills development through 21,000 Presidential Digital Talent Graduate Internships, 92,000 youth under the Ajira Digital Jobs Initiative, and over 15,000 civil servants trained.

By 2012, independent innovation hubs came into play, along with the rise of token-based hackathons supported by corporations. The initiation of 187 constituency innovation hubs (CIHs) by the government further bolstered activity at the grassroots level and positioned such hubs to be an integrated pipeline for the sector. At present, about 26 CIHs from 17 counties have come together to form the Association of Startups and SME Enablers in Kenya (ASSEK) to enhance innovation and support startups<sup>2</sup>.

Some counties were noted to be at the forefront in championing access to digital services and markets, mentorship, as well as physical space, for instance in Laikipia County, Kisumu County, Mombasa County, Uasin Gishu, and Makueni, among others. Regular information sessions are held once a month, inviting business leaders to interact with local entrepreneurs to foster growth and investment.

Counties have, in addition to the CIHs, developed other programs to support entrepreneurs and foster innovation, such as the Laikipia Innovation Entrepreneurship Fair and the Makueni Innovation Challenge, to catalyse, scale, and startups and entrepreneurs individual counties. County Innovation Weeks in Kisumu (Lake Basin Innovation Week) and Mombasa (Pwani Innovation Week) that have emerged in the past 3 years have been instrumental in showcasing local

innovations. In addition, the Kenya Innovation Week, organized by the Kenya Innovation Agency (KeNIA) since 2021, provides access to countrywide entrepreneurs and fosters dialogue, policy formation, donor support, and investments.

Another government initiative, Whitebox<sup>2</sup>, is a channel to provide a product or service to the government, and the intention is to provide a one-stop shop to promote localized innovations as well as provide access to markets, investors, and the government. Around 1861 users have been supported by the program with 342 innovations cutting across housing, health, manufacturing, food security, and others.

Initiatives to support innovators have gained momentum with additional funds allocated to youth fund programs such as:

- Youth Enterprise Development Fund (revolving fund that aims to have disbursed KES 16.17 billion/ USD 134 million/ GBP 116 million) by FY2023/2024)
- 2) UWEZO program (KES 7.1 billion/ USD 59 million/ GBP 51 million in loans disbursed with funding provided to KES 1.2 million youth); and
- 3) Kenya Youth Employment
  Opportunities Project, KYEOP, (USD 150
  million / GBP 129.8 million program that
  ended in 2021 to increase employment
  amongst youth, improve information
  systems in the labour market and
  strengthen youth policy development)

<sup>1.</sup> https://www.uwezo.go.ke/

#### **6.1**

## 2022-2032 GOVERNMENT DIGITAL MASTERPLAN FLAGSHIP PROGRAMS

Digital nfrastructure

100,000 kms of fibre optic cable (52,000 for Government, 48,000 for private networks) – 25,000 public hotspots in rural areas, 24,000 village digital hubs and studios

KONZA
Technopolis –
Data Centre and
Smart City

Establishment of regional ICT hub

Digital Services,
Products and
Data

Digitisation of all critical services, includes digitization of 5 billion records

Integration and interoperability of Government services

Develop
Government
security and
intelligence and
surveillance
systems

Digitisation of 25 billion records (around 500 million per county)

3

Digital Skills

Digitisation of all critical services, includes digitization of 5 billion records

Integration and interoperability of Government services

Develop
Government
security and
intelligence and
surveillance
systems

Digitisation of 25 billion records (around 500 million per county)

Digital Innovation, Entrepreneurship, Digital Business

Establishment
of 10 regional
ICT and
innovation
centres of
excellence

National physical addressing system

Software industry establishment

ICT research

5

**Research and Development** 

ICT research hub establishment

6

Information Security and Cyber Management

Establish and operationalize a cyber – security center of excellence

## 6.2 CAPITAL MARKETS IN KENYA

The Nairobi Stock Exchange and the Capital Markets Authority are two of the most active players and institutions in the Kenyan investment industry. With the vibrancy of the startup sector in the past five years, these two institutions are playing a key role in the startup ecosystem.

## PUBLIC CAPITAL MARKETS - THE NAIROBI STOCK EXCHANGE (NSE)

The Nairobi Stock Exchange is a leading securities exchange market in Sub-Saharan Africa. In 2014, the NSE demutualized and self-listed. The NSE provides access to private placements and public capital markets, with governance structures that are prudent for startups to adhere to. To facilitate smaller companies with lower regulatory barriers than the main market, the NSE has provided a friendly platform. called the Growth Enterprise Market Segment (GEMS), which would be able to meet the needs of growth-focused startups that are looking to raise capital with specific requirements.

Several companies have raised capital through the GEMS platform, and many technology companies will be looking at alternative means of funding as VC funding becomes tighter. The anticipation is that as companies in Kenya mature, their earlier investors may be able to exit via the GEMS platform, and the NSE is positioning the platform as the go-to platform for scaling startups. In 2021, the NSE signed a partnership with the Konza Technopolis Development Authority (KoTDA) to connect Kenyan startups with potential investors<sup>1</sup>.

This was part of the knowledge economy and innovation program of KoTDA's strategic plan for startups and SMEs. This symbiotic relationship is an example of how government and private sector players can come together.

## REGULATOR – CAPITAL MARKETS AUTHORITY (CMA)

The CMA, established by an Act of Parliament to regulate the capital market in Kenya, plays a role in the startup ecosystem by regulating private equity and venture capital registered and operating in Kenya. The Capital Markets Registered Venture Capital Companies Regulations 2007, which allow startups access to capital.

The CMA also operates a "sandbox," a favourable, tailored regulatory environment that allows for the live testing of innovative fintech capital market-related solutions, products, and services prior to their launch in the mass market and is regulated by the Regulatory Sandbox Policy Guidance Note (PGN) of 2019. The adoption of sandboxes signifies the government's commitment to innovation and its willingness to support upcoming fintech solutions that will be used by the Kenyan public.

As of December 2021, the CMA had admitted 12 startups to the live testing environment. Among the startups in the regulatory sandbox are Acorn Investment, Waanzilishi Capital, KOA, Pezesha, and Moneto Venture Capital. An analysis of the CMA sandbox reveals that five firms have exited the sandbox: Innova, Pezesha, Genghis, CDSC, and Fourfront Management. Innova and Pezesha exited the sandbox in 2019. CDSC and Fourfront Management successfully exited in 2020. Seven startups are currently undergoing the program: Waanzilishi, Acorn, Sycamore, Koa, Moneto, Belrium, and Pyypl.

#### 6.3

#### THE ROLE OF NATIONAL AGENCIES

A survey of 13 government agencies revealed major insights on how startups view the ecosystem. The insights covered, among other things, agency views on startups, services provided to the ecosystem, and challenges faced in supporting startups. The survey sought to determine the type of support these agencies offer to startups and also suggested recommendations for strengthening the startup ecosystem in Kenya. The table below summarizes the agencies' locations and core services offered to startups in Kenya's ecosystem.

Table 10: Government Agencies location and services offered to startups in ecosystem in Kenya

Table 10. Government Agencies location and services offered to startups in ecosystem in Keriya						
Organization	Location	Services Provided to Startups				
State Dept. of Industrialization	Nairobi	<ul> <li>Policy formulation</li> <li>Coordinating government agencies</li> <li>Financial support</li> </ul>				
KWTA	Eastern Region					
KENAS	Nairobi	Accreditation of conformity assessment bodies				
KEBS	Nairobi	<ul><li>Standardization</li><li>Training</li><li>Conformity assessment services</li></ul>				
TVET	Nairobi	<ul> <li>Skills development including digital skills</li> </ul>				
NACOSTI	Nairobi	<ul> <li>Issuance of research licenses</li> <li>Setting STI research priorities</li> <li>Regulate research institutions supporting startups</li> </ul>				
KIE	Nairobi	<ul> <li>Industrial development incubation services,</li> <li>Credit for micro, small and medium enterprises</li> <li>Business advisory services, subcontracting and linkages</li> </ul>				
KIPI	Nairobi	<ul> <li>Protection of intellectual property rights</li> </ul>				
KEPROBA	Nairobi	<ul> <li>Capacity building</li> <li>Awareness creation on product development</li> <li>Adaptation with a bias to exports</li> </ul>				
MSEA	Nairobi	<ul> <li>Incubation and mentorship</li> <li>Capacity building</li> <li>Registration of MSMEs and associations</li> <li>Access markets through fairs and exhibitions</li> </ul>				
ASSEK	Country Wide	<ul> <li>Capacity building for Hubs, Accelerators, Incubators</li> <li>Set standards and policies for the hubs under its umbrella</li> <li>Advocacy and public education with a focus on MSMEs</li> </ul>				
KONZA	Outskirts of Nairobi	<ul> <li>ICT infrastructure and smart city establishment</li> <li>Incentives for setup at KONZA</li> <li>Partnerships with</li> </ul>				
SME Advisory Unit	Nairobi	<ul> <li>Development of MSME focused ecosystem</li> <li>Engagement and co-ordination of key players into the ecosystem both public and private</li> </ul>				

## 6.4 SURVEY FINDINGS

The survey findings indicate that significant gaps exist in terms of policy formulation and its implementation within the Kenyan startup ecosystem. Furthermore, the survey sought suggestions on what needs to be done by government agencies in order to strengthen the ecosystem and help startups accelerate more to reach profitability levels. Some of the suggestions provided by various agencies are highlighted below:

Table 11: Recommendations for improvement of the startups ecosystem

	interiorations for improvement of the startups ecosystem
Organization	Recommendations to Improve the Startups Ecosystem
State Dept. of Industrialization	<ul> <li>Build mutual working relationship between private and public sector startup ecosystem players</li> <li>Mentorship program</li> </ul>
KWTA	Embracing new technologies
KENAS	<ul> <li>Adequate financial support</li> <li>Create more awareness</li> <li>Professional association for start ups</li> </ul>
KEBS	<ul> <li>Embrace quality and capacity building in their programs</li> </ul>
TVET	Entrench values among staff
NACOSTI	<ul> <li>Improve access to information and opportunities</li> <li>Mainstream commercialization of research outputs</li> <li>Marketing of existing government initiatives e.g TVET fairs</li> </ul>
KIE	<ul> <li>Promotion and sensitization of public private procurement processes</li> <li>Advocate on flexible regulations to set up businesses         Increase credit support for startups     </li> <li>Provision of business development and mentorship services</li> </ul>
KIPI	<ul><li>Engagements to reduce cost of doing business</li><li>Support startups through funding</li></ul>
KEPROBA	Credible identification and selection of startups
MSEA	<ul> <li>Provide more mentorship programs and start up incubation centres</li> <li>Lobby for favorable government policies on startups</li> <li>Increase funding for startups</li> </ul>
ASSEK	<ul> <li>Focus on creating a soft landing for startups</li> <li>Focus on mid level entrepreneurs and management</li> </ul>
KONZA	<ul> <li>There is need to have innovators interact and have their ideas critiqued objectively by professionals and investors</li> <li>Vibrant policy to help startups thrive</li> <li>Showcase successful startups and celebrate successes</li> </ul>
SME Advisory Unit	<ul> <li>Encourage startups to seek government support where necessary</li> <li>Build capacity of entrepreneurs through the right standard of education and experience, stemming from educational institutions</li> </ul>

#### 6.4.1 EVOLVING TRENDS IN THE ECOSYSTEM (2011 – 2022)

Some trends have been observed in the Kenyan startup ecosystem by government agencies, ranging from aspects of new entrants to startup exits and innovation and partnership trends. Government agencies note that there has been increased business agility in response to emerging opportunities, improved market efficiencies, more bias by financial institutions towards SMEs, inadequate financing, and high failure rates due to poor management skills. Additionally, agencies have noted higher survival rates for owner-managed startups and a high attrition rate, especially during the formation years. More observed trends are presented in the figure below.



#### 6.2 GAPS, CHALLENGES & RECOMMENDATIONS



#### **GAPS & CHALLENGES**

- Various governmental organizations have been and are working in silos with little or no coordination on activities, programs, and incentives related to startups, thereby duplicating various activities and services and resulting in wastage of resources
- The government faces difficulty defining startups and defining how it typically bundles MSMEs with startups
- Lack of sufficient recognition as a key economic driver merits the adequate attention it requires. The informality of the MSME and startup sectors makes it difficult to regulate and form policies around the workings of the entities
- There is a lack of tech talent in the ecosystem, forcing local startups to hire talent from abroad
- Low digital skills literacy within the citizens coupled with high demand for ICT qualified employees
- Poor alignment to increased digital and management skills requirements within their teams from industry players by Universities
- Local companies needing to register offshore, such as in Mauritius and Delaware, hinder investment from local investors. This is largely to facilitate foreign investors and growth outside of Kenya; however, it shifts focus from being a Kenyan company

#### **RECOMMENDATIONS**



- Opportunity to develop cohesive and allinclusive paths to work with startups and interact with private sector actors, investors, funders, and academia to further grow the local startup ecosystem through active participation and guidance
- Increase university, TVET, and research institution support for commercialization of research and innovation
- Support and incentives should be provided to attract, retain, and promote the transfer of skill and strong technical skills
- Direct investment in or backing of innovations that have high growth potential and a strong impact on the economy is similar to the case with Safaricom and Mpesa
- o Encourage progression of the CMA sandbox, a recommendation would be to foster more localized or county based Government sponsored sandboxes to provide an enabling environment that has a positive impact on the economy and can provide a real solution to a problem faced at a country level and enable the startup to easily overcome regulatory challenges
- By minimizing the regulatory burden on entrepreneurs, adequate security measures for investor funds attract investors to do business in the country



#### **GAPS & CHALLENGES**

- Due to a lack of sufficient quality data on the number of startups and the entire ecosystem, the government has found it difficult to channel the appropriate amount of cash to help support the industry in the country
- Access to information is difficult, as are obsolete and incomplete data sets used in decision-making
- Funding systems that are disorganized, with duplication of tasks among government organizations
- In comparison to cities, ICT infrastructure and installation in smaller towns and rural portions of the country have grown slowly
- Complicated, disconnected, and lengthy government processes and regulations impeding startup growth and registration of startups and MSMEs as formal businesses, limiting their potential for growth
- Digital exclusion amongst marginalized groups is due to a lack of access, skills, awareness, and mobility

#### **RECOMMENDATIONS**



- Tax breaks and incentives for investors should be considered, as well as tax breaks for companies
- Provision of more training opportunities to enable startup entrepreneurs to gain necessary skills in fields such as business management and investor readiness Structured programs should be created aimed at mindset transformation
- Awareness and advocacy of services, programs, and grants available to startups
- Ensuring that universities have good systems in place to support ideas in terms of intellectual property management, appropriate policy frameworks, and an appreciation of commercialization
- Monitoring and maintaining startup trends and records that are accessible and available to ecosystem players
- Strengthening real-time and near-realtime data collection systems to gather up-to-date startup data for better analysis and decision-making
- Providing government support such as enhanced, larger, and concessionary pools of credit guarantee schemes or loan schemes that can enable the startup to grow in a soft environment

# GOVERNANCE & POLICIES





## **GOVERNANCE**

## & POLICIES

There has been rapid growth and spurious activity in the Kenyan startup ecosystem in the past seven years, although, like other major tech ecosystems globally, the regulatory environment has been slow to react and keep pace with the evolution on the technology front. According to the survey conducted, investors, startups, and MSMEs point to policy and regulation challenges as being one of the main obstacles to growth.

African governments must quickly develop and implement a digital economic policy in order to open up and connect their economies<sup>1</sup>. In doing this, three key challenges should be addressed: financing, strengthening support networks, improving business environments. The Kenyan government must progress in comprehending the ecosystem launching policies and structures, as well as and creating an environment. However, considerable work remains to be done to keep regulation up with the rate of innovation while also ensuring that growth is not suppressed.

Maintaining Kenya's status as Africa's Silicon Savannah will necessitate ongoing dialogue and coordination among various government agencies such as KeNIA, the Kenya Revenue Authority, the private sector, and startups to ensure that progressive policies allow innovative ideas to leapfrog infrastructural challenges and break down socioeconomic and gender-related barriers.

Some of the polices initiated to support the innovation and entrepreneurship include:

- 1) The Startup Bill, 2021 (framework for the development of innovative entrepreneurship, establishing incubation hubs, and building a network of global and regional investors)
- 2) The National ICT Policy, 2019
- 3) The Digital Economy Blueprint, 2019
- 4) The Kenyan Digital Masterplan 2022 2032
- 5) The ICT Authority Strategic Plan (2020 2025)
- 6) The Ministry of ICT, Innovation and Youth Affairs Strategic Plan (2018-2023)
- 7) The Micro and Small Enterprises Act of 2012
- 8) African Union Agenda 2063 and Digital Transformation Strategy, 2020 -2030

The ICT and Startup sectors are also further guided by the following Acts\* and multiple authorities governing various areas as provided below:

- The STI Act of 2013, which repealed the Science and Technology Act Cap 250 of 1979 that did not integrate various aspects of innovation
- 2) Kenya Information and Communications Act, 1998, 2013 and 2015
- 3) Competition Act, 2010, 2012 and 2014
- 4) Computer Misuse and Cyber Crimes Act 2018
- 5) Data Protection Act, 2019

<sup>1. &</sup>lt;a href="https://institute.global/policy/supercharging-africas-startups-continents-path-tech-excellence">https://institute.global/policy/supercharging-africas-startups-continents-path-tech-excellence</a>

<sup>2.</sup> https://www.industrialization.go.ke/index.php/policies/99-micro-and-small-enterprises-act-2012

<sup>\*</sup> This list may not be exhaustive

## INITIATIVES TO SUPPORT POLICIES: STARTUP POLICY HACKATHONS



To respond to the various challenges expressed by earlystage businesses in Kenya, the Ministry of Industry, Trade, and Cooperatives—State Department of Industrialization with the support of the GIZ Make-IT in Africa Program, hosted a Startup Policy Hackathon in June 2019, coordinated by the MSME Advisory and modelled on the Global Entrepreneurship Network concept<sup>1</sup>

The focus was on policy challenges, implementation, and impact. This co-creation approach has been successfully adopted in other rapidly growing startup ecosystems, such as those in South Africa and Columbia. A multifaceted working group consisting of key decision-makers from government, academia, research institutions, entrepreneurs, innovation hubs, development partners, financial institutions, and business associations came together to address startup challenges and create policies.

The hackathon identified the five main challenges for startups and recommendations of solving the problems identified:

- Lack of a centralized innovation ecosystem coordination, repository of information on compliance, support services, policies with an enabling tax regime and legal definition
- 2) Limited access to market information, support services, and success stories
- 3) Lack of appropriate early-stage funding
- Limited knowledge transfer, lack of commercialization of research, and intellectual property rights
- 5) Lack of adequate and affordable human capital, professional services (mediation, tax, legal), incubation support, mentor support, business development service providers

Solutions that were recommended to support Policy Formation :

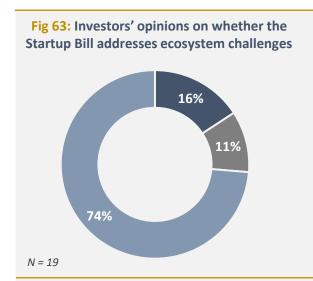
- 1) Develop an MSME Digital Portal/One Stop Shop as a tool and resource for hubs, startups, content providers, an online platform, and linkages (in line with the ICT Ministry initiatives).
- 2) Increasing finance tools for early stage funding, such as mobilizing domestic capital with fiscal incentives, including tax rebates and partial risk mitigation; making the Credit Guarantee Scheme operational
- 3) Promotion of commercialization of research through academia-industry linkages, integration of entrepreneurship, and mapping of research institutions
- 4) Improve access to quality and skills amongst startups and business development service providers together with academia, online tools, subsidized co-working spaces
- 5) Formation of the Policy Teams to develop Policy Proposal

## 7.1 SURVEY FINDINGS

#### 7.1.1 THE STARTUP BILL

Startup ecosystem players (investors, startups, and MSMEs) gave their views regarding the drafted Startup Bill, expressing their thoughts on whether the bill addresses the current challenges facing the ecosystem.

The largest proportion of investors (74%) were indifferent about the Startup Bill, with only 16% agreeing. For startups, the largest majority are indifferent about the bill. MSMEs have the largest proportion agreeing that the bill will address the challenges.



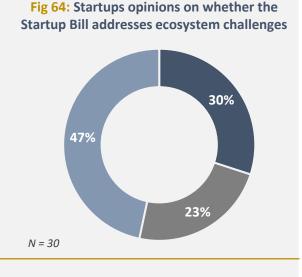


Fig 65: MSMEs opinions on whether the Startup Bill addresses ecosystem challenges

43%

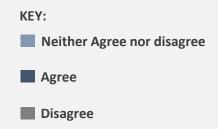
46%

N = 35

Only 16% of investors think that the Startup Bill will address ecosystem challenges. 46% of MSMEs agree that the Bill will address the challenges compared to 30% of startups, overall indicating that confidence in the effectiveness of the Bill is highly muted and uncertain

KEY:

Neither Agree nor disagree



Government agencies were also asked to identify some of the policies that have been implemented by the government to help the startups.

Table 12: Government agencies views on policies implemented to enable startups

Organization	Policies Implemented
State Department of Industrialization	Sessional Paper No.5 of 2020 on the MSEs Policy
KWTA	Buy Kenya Build Kenya
KENAS	Digital innovations
NACOSTI	Science technology and Innovation Act of 2013; Science technology and Innovation regulations
KIE	The Startup Bill 2021; SDI has established Biashara Centers for work space and business information
MSEA	The Startup Bill 2021; MSE policy

An analysis¹ by ENS Africa, a law firm based in Kenya, on Kenya's Startup Bill in 2021 reveals some shortcomings of the bill in addressing the challenges that face the Kenyan startup ecosystem. The bill the registration process by requiring an entity to first register as a company, partnership, limited liability partnership, or non-governmental organization before being eligible for startup registration. This raises the issue of double registration. Furthermore, the Bill ignores the necessity for a startup to have a patent or trademark registered in Kenya, which may result in the exclusion of entities as most startups do not have enough capital to fulfil this condition.

Despite these shortcomings, the bill solves some of the ecosystem's problems as a starting point for further dialogue. The Bill empowers the agencies to subsidize the formation of startups and also facilitates the protection of intellectual property rights of innovations by startups, intends to provide fiscal and non-fiscal support to startups admitted into incubation programs, and provides support to enable the development and growth of startups. The Bill also provides for the establishment of a credit guarantee scheme and support from KeNIA on applications for grants, registrations, and revocations of patents.

Some of the findings from the survey indicated that investors and startups appreciated certain efforts put in by the government. Gearbox is an initiative that aims to improve the ecosystem for hardware entrepreneurship by providing flexible working space, shared prototyping facilities, training in manufacturing, fabrication, and design, as well as mentorship. Gearbox was a beneficiary of the Financial Management Act, which exempted local manufacturers of motherboards from 16% VAT. Gearbox indicated that this was very significant, as it helped them easily manufacture and gave them a competitive edge over international manufacturers. On the other hand, some innovators expressed negative feedback regarding the government's requirement that all ICT practitioners hold a university degree. The innovators say this will likely hamper more startups, as innovations can come from anywhere.

Startup Bills are generally being enacted globally with the view of each country being recognized as a tech hub to attract talent and investment. This view has been adopted by African tech hubs; a comparison of some of Kenya's peers is presented in the table below.

Table 13: Comparison of the startup Act (Law 20 of 2018) of Tunisia, Start-up Act (Law No. 2020-01 of January 6, 2020) of Senegal, Kenyan Start-up Bill 2021, Start-up Proclamation (No. of June 2, 2020) of Ethiopia and the Nigerian Start-up Bill, 2021<sup>1</sup>

	,				
ISSUES	Tunisia	Senegal	Kenya	Ethiopia	Nigeria
Tax relief	✓	х	Х	х	Х
Granting of guarantees for obtaining credit	<b>√</b>	✓	<b>√</b>	✓	✓
Government support (monetary or otherwise)	✓	✓	<b>√</b>	✓	✓
Access to public funding	<b>√</b>	√	Х	Х	<b>√</b>
Access to public order/ procurement	<b>√</b>	✓	<b>√</b>	√	<b>√</b>
Favourable investment measures		√	х	✓	✓
Implementation of capacity building measures	<b>√</b>	√	<b>√</b>	х	<b>√</b>
Facilitating the grant or revocation of patents (protection of intellectual property)	<b>√</b>	х	<b>√</b>	<b>√</b>	<b>√</b>

Overall, the table above shows that Kenya's startup bill does not stack up well against most of its peers. The analysis shows that the Kenya Startup Bill performed well across matrices like protection of intellectual property, implementation of capacity-building measures, government support, and the granting of guarantees for obtaining credit. However, in metrics such as favourable investment measures, access to public order and procurement, access to private and public support and funding, and tax relief, the Startup Bill did not perform well.

A recent example where unfavourable policies in Kenya have led to the relocation of a successful Kenyan-originating startup is the case of Wasoko, which has relocated to Zanzibar as a result of "more supportive fiscal policies" and a conducive business environment. Tax laws in Kenya are punitive for technology companies, with a digital tax imposed on gross transactional value at 3% as of July 2022, up from 1.5% previously introduced in January 2021. Some companies are also subject to excise duties and an inflated capital gains tax of 5% to 15% from January 2023. The Finance Act of July 2022 also imposed a 10% excise duty on imported mobile phones and a 20% excise duty on digital loans.

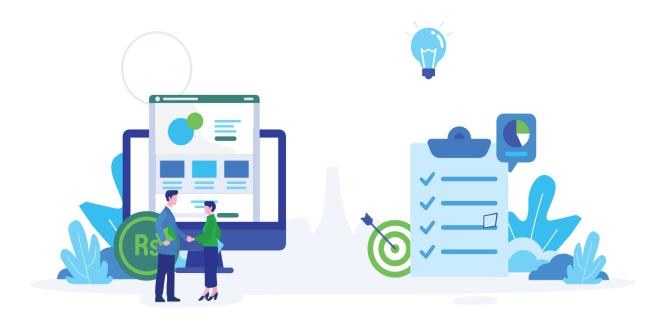
## The case of UK's Seed Enterprise Investment Scheme<sup>1</sup>

Following the success of the Enterprise Investment Scheme, the Seed Enterprise Investment Scheme (SEIS) was introduced in 2012/2013 by Chancellor George Osborne. SEIS was created to encourage entrepreneurship and new business ventures to increase economic growth. The SEIS was introduced to complement the EIS.

The SEIS was introduced to help small, early-stage startups raise up to GBP 150, 000 in financing by offering tax relief to investors. According to the scheme, private investors receive a sizable tax break as compensation for making an early investment in high-risk startups by buying new shares. The program allows any private investor to make an annual investment of GBP 100,000 and receive a 50% tax break.

The startups must not be older than two years, have fewer than 25 employees, and have an asset value of less than GBP 200,000. SEIS investors have two options for investing: through a single qualifying company or a portfolio. Tax-free growth, up to 50% capital gains reinvestment relief, inheritance tax relief, and loss relief on exit are just a few of the tax breaks offered to investors by the scheme.

Between 2020 and 2021, approximately 2,600 businesses raised a total of GBP 175 million through the scheme<sup>2</sup>. This was a 4% increase in funding from 2019. The SEIS scheme had around 1,660 first timers representing approximately GBP 154 million of investment<sup>2</sup>. The Kenyan Government, in designing regulations for the startup ecosystem, could lean towards the SEIS idea to encourage more local investments.



- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/344756/repo\_rt279.pdf
- https://www.gov.uk/government/statistics/

#### 7.2 GAPS, CHALLENGES & RECOMMENDATIONS



#### **GAPS & CHALLENGES**

- Investors have expressed the difficulty and lengthy nature of business registrations. There's a need to smooth the process for startups and create policies around it to distinguish them from other enterprises
- o Unfavourable tax rules and a lack of tax incentives discourage investors and venture capital funds from investing in startups in the ecosystem. For example, the Free Economic Zone of Silicon Zanzibar provides a 10 year tax holiday and easier access to work and business visas. Rwanda and Mauritius are other friendly havens that are encouraging startups to set up shop
- Kenya's comparison against its peers in the Startup Bill shows that it is lagging behind. Policy benchmarking from countries that have working ecosystems to help the country learn about ways the policy can be framed better and be adequately researched and planned is necessary
- Attracting quality startups, founders, and management, and their retention on a long term basis

#### RECOMMENDATIONS



- Building a crowdsourcing mechanism and hackathons to dialogue and get feedback from different sectors and players in the ecosystem, both private and public, on various regulations and policies that are reviewed at adequate intervals and acted upon
- Creating a one-click business registration and service model. Setting up a call centre, which could act as a one-stop shop for any regulation-specific query; a shared services centre, which would provide accounting, technology, patents, etc.related solutions and ease out registration and fund disbursement processes and lead times
- Tax incentive policies, such as the creation of an angel investor tax deduction or relief schemes, reduce the risks associated with early stage investments. Tax exemptions such as through the Enterprise Investment Scheme, Venture Capital Trusts, Seed Enterprise Investment Scheme or Social Investment Tax Relief in the UK¹ are prime examples of successful models. From a venture capital investor perspective, attracting funds by incentivizing how carried interest ("carry" or "profits interest") is treated vis-à-vis other jurisdictions is key to the growth of the ecosystem
- Legislation for credit and guarantee schemes to support startups and enable them to access local bank funding, the potential to set up a governmentled tech focused fund to enable Kenyan companies to access early-stage capital
- Tools to retain and reward talent adequately such as visa and residence permits such as Canada's Start-up Visa Program<sup>2</sup> amongst many others to attract high quality startups and talent for accelerate tech and economic growth
- 1. <a href="https://www.gov.uk/topic/business-tax/investment-schemes">https://www.gov.uk/topic/business-tax/investment-schemes</a>
- 2. https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa.html

## 7.3 KEY FINDINGS



- The government and its agencies need to build confidence among entrepreneurs, investors, and other stakeholders that the Startup Bill will work adequately and effectively in supporting the startup ecosystem in Kenya. Taking note of the reception of startup policies that have been successfully adopted globally while taking a 360-degree localized approach is key to levelling it up.
- Startups and investor-friendly tax incentives: Many startups founded locally have moved their holding companies and headquarters to or set up shop in tax-neutral and business-friendly jurisdictions such as Mauritius, Rwanda, and, more recently, Zanzibar. The government needs to adequately weigh out the benefits of a burgeoning startup ecosystem in Kenya that can provide tremendous economic growth and transformation versus the short-term benefits of high taxes to meet annual targets. A vision where the government is working with the private sector in a mutually amicable way to sustain the country equitably while at the same time supporting its entrepreneurs would be one of the highest measures of success.
- Policies such as visa and residence permits, employee stock options, and non-resident tax status would enable support for more multi-cultural, gender-balanced teams, thereby spurring talent attraction, talent retention, and the upskilling of local talent. Tax incentives on the exemption of capital gains tax on the sale of stock or stock options.
- **Sector-specific sandboxes** that can be led by key regulated government ministries are key to enabling local startups to thrive and provide an avenue for the government to procure services.



# INVESTORS, DONORS & FUNDING







## INVESTORS

From 2008 to 2010, nearly 60 percent of investment in Sub-Saharan Africa was destined for South Africa, with regional hubs like Nigeria and Kenya trailing far behind in terms of both market share and mind share1.

According to a study by GSMA in 2014, less than 10% of startups received funding from VCs or angels, with only 7% of the VCs targeting the ideation stage and 34% focusing on seed investments, with 60% bootstrapping completely. 40% of the startups received less than USD 1,2002.

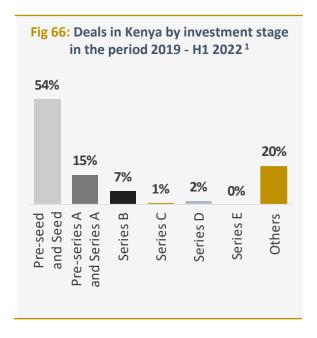
Venture capital in Kenya's startup space was categorized into commercial and impactfocused funds. In 2014, the GSMA report identified 16 commercial VCs and 11 impact VCs<sup>2</sup>. 44% of these VCs (some of whom are: Kitendo Capital, eVA Fund, Amadeus Capital Partners, Fanisi, and TBL Mirror Fund) are not active in Kenya, have closed down, or have not raised a second fund.

One of the reasons for closing down or not raising a second fund has been the inability to successfully exit. Some of the fund managers and team members have moved on to work with other funds.

Some of the funds started with venture investments but also engaged in larger private equity-type deals such as LeapFrog. Other long-time funds such as Accion, Acumen Fund, DOB Equity, and TL.com continue to be active in the tech space and add value to the Kenyan startup ecosystem.

400+ VCs, DFIs, Ventures Builders, Angels, Corporates, and Syndicates invested in Kenyan startups between 2019 and the first half of 2022. Kenyan startups attracted more venture funding in the first five months of 2022 (USD 820+ million) than in the entire year of 2021 (USD 412 million)2, indicating a potential growth rate of more than 4x by the end of the year.

Startups in Africa attracted USD 3.1bn<sup>3</sup> in the first half of 2022, with Kenya accounting for 25% of this amount. Pre-seed and seed rounds have been increasingly popular as higher valuations and increasing competition from investors have driven investors to earlier in promising Increased participation by investors in follow on rounds at Series A and B for companies that perform well is another strategy that is becoming more common.

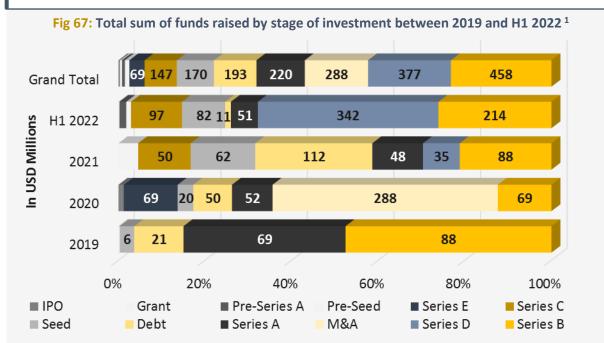


https://mcit.gov.eg/upcont/Documents/Reports%20and%20Documents 122022000 ar AR The African Tech Startups Funding Report 2021.pdf 1. 2.

https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/Digital-Entrepreneurship-in-Kenya-2014.pdf

https://thebigdeal.substack.com/p/mambo-eastern-Africa, the list may not be exhaustive and may have exclusions

The dataset contained 278 deals during this period, including 1 IPO, 1 merger/acquisition, debt and grant funding. The dataset may not be exhaustive and may not have captured deals not disclosed or confidential in the startup ecosystem



USD 1.97Bn was raised during 2019 to H1 2022. The depth in the startup ecosystem can be noticed moving from 2019 to H2 2022 as more funding stages were introduced in the market\*. We also noted that there was significant amount of bridge rounds in between the stages when the runway was short and more creative funding rounds to bridge the gaps were seen in later years.



The largest deals were between USD 100 – 500k at pre-seed and seed rounds, followed by USD 2-5m typical of Series A.

With significant investment targeted to preseed and seed rounds, growth in investment raised in the USD 100k–500k segment was seen to be the highest, followed by the USD 1m–2m ticket size segment in 2021 as compared to 2020. As the size of deals in Africa starts to get bigger, we expect more global investors to join the bigger rounds.

2020 and 2021 were record years, with participation from Tiger Global, Goldman Sachs, and SoftBank Vision Fund, among others. As a signalling effect for other investors, it shows that startups from Kenya and Africa are attracting top investors globally due to their rapid growth, world-class technology, notable exits (DPO Group to Network International in 2020, Mdundo listing on Nasdaq), and attractive returns.

<sup>1. &</sup>lt;a href="https://thebigdeal.substack.com/p/mambo-eastern-Africa">https://thebigdeal.substack.com/p/mambo-eastern-Africa</a>,

The dataset may not be exhaustive and may not have captured deals that were not disclosed or confidential in the startup ecosystem.

Y Combinator (YC), one of the world's top accelerators, has been expanding its presence in Africa since its first two companies in 2015. Eight companies from Kenya have been accepted into its program since 2020, and those include Marketforce (raised USD 40M + post-YC), Workday, Boya, Kidato, Nash, Hustle Sasa, Fingo, and Patika. For an early-stage startup, getting into YC is significant as it opens up doors to networks, capital, and market validation that could help the startup scale rapidly.

With startup growth exploding in the African startup ecosystem and interest from major players in the Kenyan market, local and international managers have been raising Africa-focused funds. This also includes VCs raising funds for local East Africa-based or Kenya-focused investments. The majority of these funds are small and have been raised from high-net-worth individuals as well as local corporations.

As the market warms up to investing locally and boosting the local ecosystem, corporations and institutions are expected to follow suit. Successful exits will pave the way for institutions to appreciate the risk versus reward of providing allocations to locally based VCs. In South Africa, Imperial Logistics has been a trailblazer within the Corporate VC (CVC) segment. Imperial Logistics, through Newtown Partners, has a sectorfocused startup investment strategy that is strategic to their core businesses of logistics and healthcare. With the burgeoning interest of global investors in the blockchain space, Newtown Partners has also included this as a key area of focus. Safaricom's foray with the Spark Venture Fund in 2014 was a move in this direction. The fund invested in six startups<sup>1</sup>, however, the activity has dissipated over the past seven years.

Global investment by larger venture capital firms in smaller or niche venture capital firms is another emerging global trend being tracked. The rationale behind this strategy would be to have visibility over larger pools of deal flow for later rounds in interesting companies while not having to participate in smaller ticket sizes earlier on, in addition to learning more about new ecosystems where there are limited networks or on-the-ground expertise.

Several venture fund managers are raising capital from larger institutions globally for Africa- and East Africa-focused funds. For example, one of the pioneer funds in East Africa, Savannah Fund, which was born as an accelerator in 2011 and turned into a seed to Series A investor with 31 investments in Africa, recently raised USD 25m from IFC, Senegal-based venture studio UMA, and Tim Draper of Draper VC and Draper Associates.

Building startups in-house by venture builders or venture studios has also become popular. This gives access to high-quality startups within ecosystems that are born from programs run internally or built inhouse over several months and years.

Table 14: Venture Studios/Builders in Kenya

Venture Studio	Sector Speciality	Date Established	
Factor E Ventures	Energy, Agriculture, Mobility, Waste	2013	
Antler	Agnostic	2017	
WeTu (Powered by Siemens)	Energy, Mobility, Water	2019	
Purple Elephant Ventures	Hospitality	2020	
Pyramidia Ventures	Agrifoods	2021	
<b>Cubd Ventures</b>	Talent, People	2021	

## 8.1 SURVEY FINDINGS

#### 8.1.1 INVESTOR PROFILE

A survey encompassing 19 investors locally and globally was conducted. The findings are presented here below:

The early-stage capital gap is one of the most common challenges according to startups and MSMEs in Kenya, particularly given the nascent nature of the ecosystem, where most stakeholders have reported that such early-stage funding comes as a result of personal connections, i.e., friends and family. In the context of this study, a key finding was that entrepreneurs who do not have the right education, credentials, or networks are already at a disadvantage.

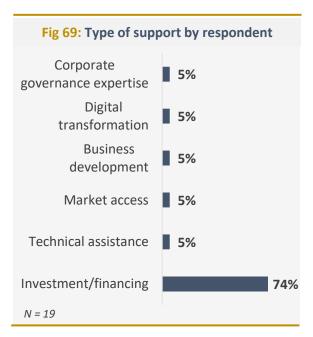
Moreover, when it comes to employing different sources and methods of financing, the ecosystem does not offer small businesses many options. Startups do not have easy access to loans, and venture debt is expensive. The collateral precondition makes it difficult for such startups to benefit from local loans. In cases like these, while other economies rely on solutions such as invoice discounting by finance companies, only a handful of Kenyan banks are using this approach, limiting growth.

Although there seems to be a growing number of angel investors with a higher likelihood of investing in seed-stage businesses, the number of businesses at an early stage far exceeds the amount of financial support available. Given that investors will largely invest in high-quality deals, there is an equivalent need for high-quality investors who are adequately able to support the founders.

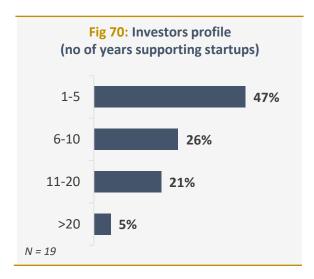
The term "quality" is key, given that in Kenya, like other emerging markets at similar stages of development, there have been issues with angel investors wanting to take a disproportionate amount of equity compared to the amount of capital invested.

Such a strategy could hurt a startup's future growth and chances of getting more funding. For example, if a startup gives up too much equity at an early stage of its business, it makes it less appealing to future investors and can make the founder less motivated to grow the business.

74% of the investors and donors in the survey mostly only offered investment and financing support. The other 26% offered technical support, market access, business development support, digital transformation support, and corporate governance expertise support.



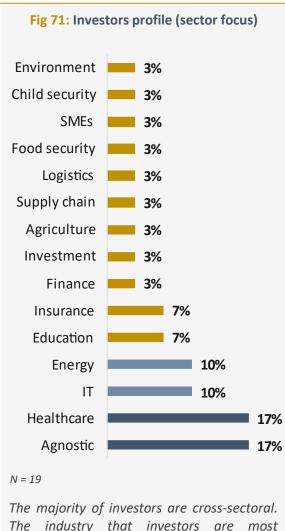
A trend visible in the past three years is the entrance of new investors into the startup ecosystem in Kenya and Africa. The increase in funding shows that global VCs, angel investors, and new venture funds that have raised money for African investments have grown in the ecosystem.



#### **Investors' Sector Focus**

Results from the survey reveal that *investors* are either sector-agnostic or health sectororiented, at 17% each. 17% (the greatest proportion supporting this statement). prefer Other sectors investors distributed among finance, investment, agriculture, energy, and insurance, among others. The energy sector and IT are the second-most popular sectors for investors, each at 10%. Education and insurance come in third at 7% each. The remaining sectors each have 3% of investors interested and focusing on them.

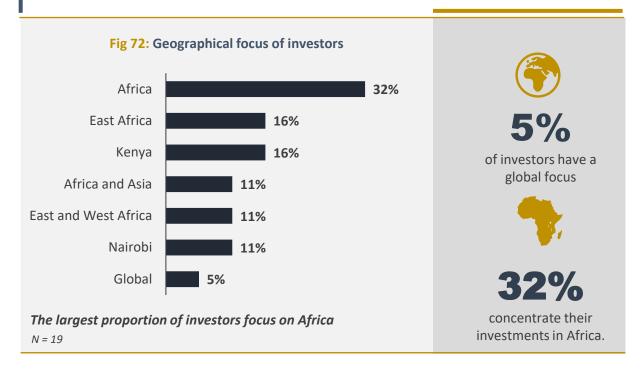
According to a global data aggregator, Traxcn, there are currently over **104 startups** in Kenya operating in the health tech space, with one of the big names being MyDawa, an online pharmacy store that has raised approximately USD 8 million in funding<sup>1</sup>.



The industry that investors are most interested in is healthcare

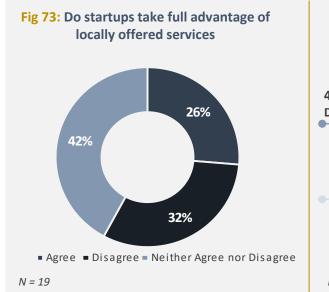
#### **Geographical Sector of Investors**

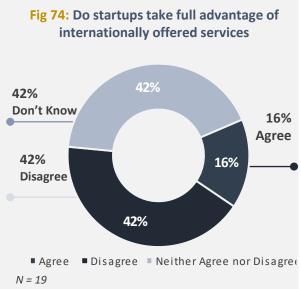
A larger proportion of the investors in the survey were those with an African-wide geographical focus (32%), while the least proportion had a worldwide focus (5%). The rest is split between East and Central Africa, Africa and Asia, Kenya, East Africa, and specifically Nairobi. This is illustrated in **Figure 69** on the next page.



#### 8.1.2 OTHER FINDINGS

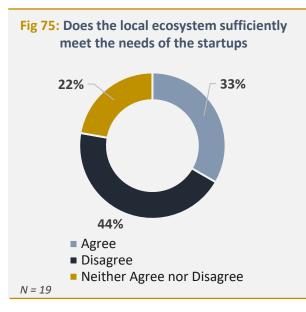
The survey also sought to find out investors' perceptions of some trends in the startup sector, such as whether or not startups take full advantage of services offered and whether they take advantage of internationally offered services, among others.





Although a larger percentage of investors concur that startups fully utilize international services, there is less agreement that startups fully utilize locally offered services. This demonstrates that startups use more foreign services than local services, at least from the perspective of investors.

The investors' perception that startups take full advantage of international services over local services could be supported by their reflection that the local ecosystem does not meet the needs of the startups.



38%

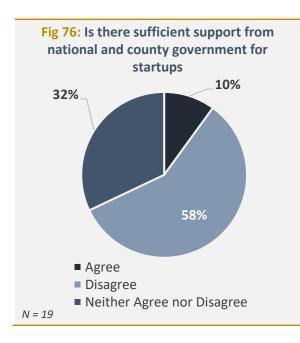
Of investors disagree that startups take full advantage of local services inline with

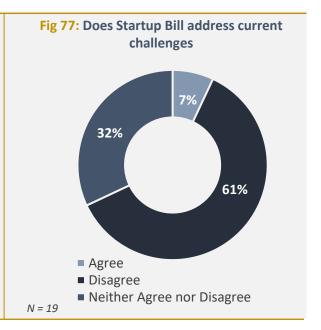
44%

Of investors who think the local ecosystem doesn't sufficiently support startups

Of the 19 investors who responded, the largest proportion disagreed that there was sufficient government support for startups at both the national and county levels. Only 10% agree with this statement, while 32% are indifferent.

Although the country intends to pass a bill that will see a regulatory framework for startup ecosystem established, only a small percentage of investors think that the bill addresses the challenges of the ecosystem.





#### 8.1.3 EVOLVING TRENDS IN THE ECOSYSTEM (2011 – 2022)



The ratio of young to old people using technology is disproportional, especially at the management level



More capital being channeled towards funding startups



Increased valuations



Rise in the number of tech companies and more incorporation of technology by startups across all sectors



More VC and PE funds entering the country

An increase in the number of local entrants/ Kenyan founders





Few investors
exclusively focusing on
startups in need of <
USD 0.5m funding



More focus on local startups and women-led enterprises

MAITRI CAPITAL



Maturity in the thinking and execution capacity of entrepreneurs

Other trends that have been observed in the ecosystem by investors are more capital inflow from global investors, larger funding rounds, a rise in the number of partnerships, more outsourcing of services, an inclination towards funding tech-driven startups, and

those in blockchain and interest in enterprises creating impact in the community. Investors have also noticed the increasing sector diversity of startups and more regulatory facilitations, such as favourable immigration policies.

Since 2011, investors have cited some of the primary causes of the successes and failures of some startups over the past ten years, as well as how the startups have handled their successes and failures. Entrepreneurs' strong execution skills, startups' flexibility, team dynamics within startups' teams, strong management teams, and the capacity to address market needs by meeting expectations and delivering are all factors that contribute to success. Investors cite reasons for failure such as startups' inability to secure funding on time, investors withdrawing their support, particularly in syndicate-funded startups, poor leadership, the creation of products that don't satisfy market demands, and a lack of liquidity as startups mature.

Investors suggest some steps that donors, investors, and other parties should take to support the ecosystem's success in order to address these failures: realistic growth strategies, a clearly defined target market, a greater focus on no-tech startups, balanced funding with technical support, and more pre-seed funding for startups are a few of these. Other strategies for promoting the ecosystem's health include encouraging investors to make high-risk investments and offering post-investment and leadership support. Strengths and weaknesses in the Kenyan ecosystem were identified by investors. Key strengths of the ecosystem are presented.

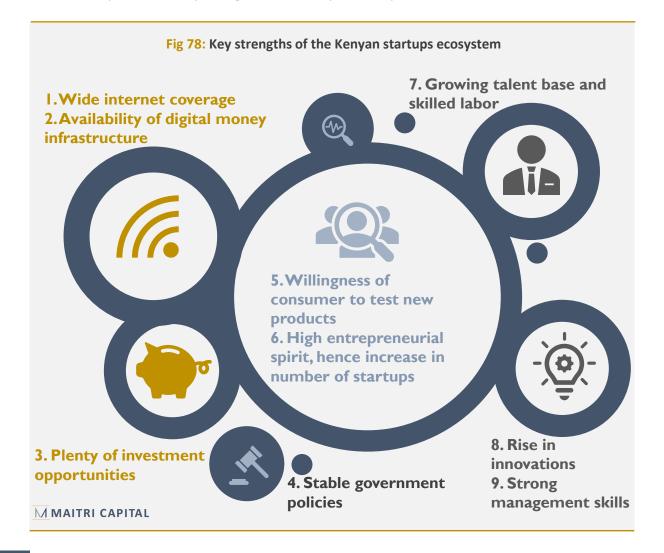


Fig 79: Key weaknesses of the Kenyan startups ecosystem

Lack of capital that cuts across all funding stages for startups in the ecosystem

High cost of talent acquisition and retention which is unfavorable for startups

Over-emphasis on foreign and male founders disadvantaging female and local founders foreign-based enterprises and unreasonably high valuations

Inadequate policy support from government

Unhealthy competition from well established companies considered monopolies

Poor financial reporting tools leading to substandard decision making by management

More funds channeled to

M MAITRI CAPITAL

In offering support to startups in the country, investors cite topics such as inadequate capital, difficulty determining the type of capital to offer, poor financial reporting tools, expensive technical talent, and the lack of patience of founders as the key challenges they face. Further, they point out insufficient knowledge about the investment process, a lengthy due diligence process, and insufficient talent in some areas, such as software development, as

additional problems they have to deal with when offering support. In addressing their challenges, investors propose education on venture capital, mentorship and guidance, simplified due diligence, establishment of startup-friendly policies (given Kenya's unfavourable tax policies and more stringent policies on startups compared to other countries like Nigeria) and emphasis on solutions rather than just training and capacity building.

#### 8.2

#### **GAPS, CHALLENGES & RECOMMENDATIONS**



#### **GAPS & CHALLENGES**

- The most significant challenge for startups in Kenya's ecosystem is funding, as many startups fail to raise funds in the early to mid-stages. Sufficient growth has not been experienced, leading to down rounds or the startup folding, resulting in losses for investors
- Inadequate support for the startup ecosystem from the county and national governments. The investors responses' demonstrates this, with 44% of investors believing that county and national governments do not adequately support startups
- Investors are not sufficiently involved or sought out in the development of regulations that affect the startup environment. The Startups Bill is not seen as a solution to the problems that the ecosystem is now facing
- When investor-favored sectors are compared to startup operating sectors, there is a sector mismatch. Survey data shows that majority of startups are concentrated in the agriculture and education sectors, most investors who aren't sector-agnostic prefer the healthcare sector to other sectors
- Given that the main support offered by investors to startups is funding, other types of support are more critical to ensure long term success and sustainability such as business development and corporate governance

#### **RECOMMENDATIONS**



- o Improving both the legal and regulatory frameworks to lessen the political risk that investors face through continuous revision of these frameworks and active investor participation their development. Furthermore, in order to expand investments, maintain and investor grievance management should adopt best practices for monitoring and resolving serious regulatory implementation difficulties
- Creating an investment reform map and/or FDI plan based on analysis and a logical framework to capture the amount and type of investments flowing into the country, as well as the policy combinations required to maximize their advantages
- Increasing government-investor dialogue and collaboration through various mechanisms such online and physical platforms where the government and investors can collaborate and share ideas on how to improve the ecosystem
- Creating an investor database that details the type of investment each investor offers as well as the startups in which they have invested will encourage better collaboration among investors
- Working with startups and accelerators to provide insight on why some businesses receive more funding than others and what can be done to increase investment in underfunded sectors



#### **GAPS & CHALLENGES**

- Angel investors face a shortage of quality deal flow because most of them obtain investment possibilities through emails and personal referrals. When this occurs, it is common for angel investors to lack an organized process to vetting and selecting these investment possibilities
- Traditional VCs lack impact focus because most of them want big returns, preferring to invest in firms with proven track records (exits and IPOs). Less emphasis is placed on industries and sectors with few or no exits and high capitalization requirements
- Lack of established data-backed guiding investment principles. Kenya lacks a "thesis" based on a well-constructed understanding of the Kenyan startup ecosystem to help guide investors in making investment decisions and a comprehensive comprehension of what works and what doesn't within the context of the country

#### **RECOMMENDATIONS**



- Co-investing to help nurture and mature investor networks. Individual and angel investors have lower deal syndication than larger scale and high performing VCs. Co-investing with other funds allows for a robust pipeline of projects and reduces the risks associated with seed capital provision, especially because investments are spread across a greater number of companies. VCs, angel investors and PEs should strive to adopt this approach to help overcome the gaps, which are mostly structural, by helping to maintain a diverse set of deal partners
- o Invest at scale to contribute to the expansion of the capital pool managed by a single VC. Large funds often take advantage of economies of scale, allowing them to retain stronger talent. Furthermore, they are able to build more high-quality networks and develop ties for entrepreneurs to improve the quality of their deals while also capitalizing on existing synergies. Local Kenyan investors should be encouraged to actively participate in the ecosystem



## KEY TAKEAWAYS

- The number of investors in the Kenyan startup ecosystem scene has increased over the last decade, as evidenced by the increasing number of funds attracted by startups. More than 400 investors invested in the ecosystem between 2019 and H1 2022.
- 2 According to investors, trends have emerged in the way the ecosystem operates. Higher valuations were witnessed in 2022 for the stage of startups, growth in capital being channelled towards funding early and mid staged startups, and increasing participation from local investors.
- There is a sector mismatch when investor-preferred sectors are compared with startups' main sectors. This necessitates the need for more harmonious coordination between startup founders, academia, hubs and investors.



- More stringent and business-friendly policy-related regulation should be created around the operations of investors to encourage the participation of both local and international investors.
- Larger global venture funds are investing in smaller niche, localised venture capital firms, indicating interest in emerging markets, search for deal pipeline in the future and market intelligence.
- 6 African entrepreneurs that have raised substantial fundraising rounds and are familiar with the startup ecosystem are reinvesting in other startups.

# CONCLUSIONS



## SUMMARY OF FINDINGS

This section presents a summary of the key findings of the study. Since 2010, Kenya's startup ecosystem has experienced tremendous growth. The establishment of MLab in 2010 represented a significant turning point for the country's startup scene.

- **1. Sector Growth and Expansion -** The rapid sprouting of startups was accelerated by the introduction of 3G networks into the country and the setting up of MLAB and iHub.
- Kenya currently has more than 1000 startups spread across different sectors, over 239 constituency innovation hubs, 74+ private accelerators and incubators, 29+ university hubs and more than 400 investors in its ecosystem as of the first quarter of 2022. The most attractive sector for startups is the tech sector.
- Startups in Kenya raised USD 1.9 billion from 2019 to H1 2022, with more bridge rounds being witnessed between funding stages when the runway was short and more creative funding rounds to bridge the gaps seen in later years. Investment deals between USD 100k and USD 500k targeting seed and pre-seed were noted to be the most common, with only a few startups participating in mega-sized deals (more than \$100m). Although startups face funding shortages, most have tried to seek finance, with the most common sources being equity and debt.
- Startups reported growth aspects in terms of the number of employees, the number of goods and services offered, the number of branches, the number of offices and production areas, the usage of vendors for various goods and services, as well as expansion into new domestic and international markets.
- Founder analysis shows the dominance of founders in their 30s in founding startups, with most startups having two founders. The majority of startups were also founded between 2015 and 2022. More participation has been witnessed in female involvement in the startup scene, as there's an increasing number of startups with at least one female founder. A survey by Briter Intelligence in 2021 showed that of 250 Kenyan startups, 24.7% had all female management teams. However, the largest proportion of founders remains male. Startups are proliferating in decentralized areas of the country, away from the state capital of Nairobi.
- **2. Funding remains a major issue** for majority of startups. This is despite the increasing amount of money flowing into the ecosystem. Startups seeking funding are seen as risky by investors, especially in the early stages. Fundraising challenges stem from, among other things, a lack of knowledge about developing good business models to attract investors, when and how to raise capital, and the specialization of investors in specific sectors. Over-reliance on external funding is a challenge for the ecosystem, as local investors are reluctant to back startups. Additionally, more mature startup founders have expressed concerns about the composition of management teams at young startups.

- **3. Policy regulation remains insufficient** despite national and county governments' efforts to organize the startup scene. Startups and MSMEs cited legislative and legal impediments, citing corruption, tax rates, legal processes, business costs, market information availability, tax administrations, investor-friendly legislation, and labor restrictions as main culprits limiting sector growth. Ecosystem participants (investors, MSMEs, and startups) agree that current regulations are insufficient to support the ecosystem. Investors must meet stringent tax rules, while startups must contend with the legal costs of doing business. Lack of government engagement has also accelerated the sector's rapid growth during the previous 10 years. **Stakeholders are unsure whether government rules in the industry will be successful.** Policy laws that promote digital reporting, data competence, and the development of formal, secure data systems may help to boost the adaptability and scalability of startup services and infrastructure.
- **4. Support organizations like university hubs, accelerator programs, and co-working spaces** remain the most practical avenues for further developing innovative ideas in Kenya. More universities are creating hubs and innovation centres to foster young innovations and foster a research mentality. In order to foster innovation and talent at the school and university levels as well as leverage knowledge transfer from all over the world through incentivized initiatives, industry and academia must set up the proper infrastructure to facilitate this. Universities and TVETs are both academic institutions that could play a significant role in fostering the growth of the skilled talent pool required for large-scale innovation. Kenya currently lacks enough skilled local talent, but the country's sizable, youthful, and digitally native population have significant potential. Academic institutions, in collaboration with the best technology-focused universities globally, could help develop and hone the skills and expertise required to propel the country into the fourth (4th) industrial revolution.

# RECOMMENDATIONS AND CONCLUSION

This study was carried out to better understand the Kenyan startup ecosystem, with the specific goal of describing how the ecosystem has changed or evolved over the past ten years, as differentiated by gender, location, and other pertinent socioeconomic factors. The study also aimed to examine how the Kenyan startup ecosystem affected the growth of the Kenyan economy, the SDGs, and pertinent policy goals, as well as how the lessons learned from the past could be applied to the creation of future initiatives, diplomatic efforts, and policy decisions. Last but not least, to develop illustrative and representative case studies on entrepreneurial journeys within the Kenyan startup ecosystem and how policy and governance changes can be proposed and adopted to promote the future success of enterprises. The study has shown that the Kenyan startup ecosystem has experienced tremendous growth over the last 10 years, with secondary data supporting this statement. Kenya's startup ecosystem presently has more than 1000 startups, over 239 constituency innovation hubs, above 74 private accelerators and incubators, growing number of university hubs with 29 at the time of the report counted and more than 400 investors. The startup scene has also seen an increase in funding, making it among the most funded in Africa.

Recommendations have been offered by the various stakeholders, such as the establishment of local venture capital funds within the government and corporate sectors, the creation of microindustry clusters, and regional and international trade agreements to accelerate the growth of the startup economy. Furthermore, there is a need to harmonize county policies on startups, increase youth enterprise development training so that they see starting a business as a viable option rather than a last resort after failing to land a white collar job, establish incubation centres in TVET institutions, and incorporate entrepreneurship into the school curriculum to support startups.

For firm-level interventions, recommendations include the reduction of taxes on ICT-based equipment to make it more affordable for startups, the improvement of startups' access to networks and ICT infrastructure, increasing the supply of tech talent, and shortening the time it takes to raise seed capital. To prevent founders from losing out during business storms and to stop corruption in which startups are pressured into unjust deals that choke off subsectors, laws must be put in place.

Investors play a crucial role in identifying opportunities for future growth and expansion. Rather than just focusing on startups' market valuation, investors could identify sustainable investments, help startups create profitable unit economics, and make portfolio ecosystem investments rather than big one-off bets. Startups that succeed in the next phase are likely to have a distinct business and value proposition, operate with discipline, and achieve growth through the careful lens of being bottom line focused rather than just accumulating customers.

By addressing the framework conditions for investing, angel investment from local high-net-worth individuals and the diaspora could be unlocked. This can be done by pushing for laws that stop double taxation and put limits on repatriation.

By offering high-risk, no-return capital, which closes the gap between pre-seed and seed stages, the government can help de-risk investments in early-stage startups. In addressing the aspect of quality angels, there is a need for angel investor education to help professionalize the ecosystem and build sustainable partnerships between angels and the startups they invest in. Women's participation could be encouraged either through encouraging incubators and accelerators to actively seek out female founders or by offering hands-on, practical business development assistance to early-stage women-led startups or still facilitating access to post-seed capital.

Customized and targeted efforts addressing specific challenges identified in this study are required to sustain this momentum. Designing policies around regulatory frameworks should be among the government's top priorities. Policy changes are required to improve the country's business environment. This should be done regardless of whether it is achieved through tax regime changes, local investor encouragement through tax incentives, or role mapping and harmonizing government agencies and bodies within the sector. Addressing the problem, specifically early-stage funding for startups, would be pivotal in ensuring the country moves forward.

The growth and development of this sector could hold the key to some of the government's problems, including unemployment and digitization. Sector members must play their roles in ensuring that this young, flourishing ecosystem is brought to maturity. Although the growth of the Kenyan startup market has been commendable in the last ten years, it is still crucial to put in more work to augment and accelerate the growth in order to compete on a global scale. For startups to succeed in Kenya, the government and all stakeholders must work harmoniously to address the systemic gaps and challenges that continue to derail the sector. This will consequently create more jobs, boost Kenya's international standing, and foster economic growth.



## GOLD STANDARD: "QUADRUPLE HELIX MODEL"

- With technology disrupting all sectors and industries, universities are one of the most important players in promoting economic development. The quadruple helix model is a spiral model of innovation that brings together government, industry, community, and academia for a development framework developed by Henry Etzkowitz and Loet Leydesdorff in the 1990s.
- Spin-offs from universities have recorded USD 39.3bn² in 2021, a 72% rise from the previous year, according to Global University Venturing (GUV), a market intelligence agency, as a result of increased interest in "deep tech," which is supported by universities but is high risk and requires patient capital for commercialization.
- O An example of success using the model is the technical university TUM in Munich, Germany, which is attached to several institutes. The state has invested EUR 1 billion, and the BMW family office has also invested to set up an incubator that has invested in 50 companies in the region. In 2014, Safaricom invested KES 30 million in iLabAfrica to spur technology growth and innovation and work with companies that could be used to scale. While this did not return positive results at the time, with the startup ecosystem exploding locally and globally in the past 5 years, the model is worth re-exploring.
- "Safaricom is now seeking to actively orchestrate the quadruple helix model of innovation that incorporates the academia, government, communities plus hubs and the industry. As part of this initiative these hubs will benefit in terms of shaping their governance, embedding innovation frameworks and capacities as well as leveraging various ecosystem networks in the arrangement"

~Eng Andrew Masila, Head of Innovation Technology and Design - Safaricom

- Cultivating links between research communities and industry and extending beyond this to encompass other segments would strengthen the academic institutions' capacity as well as increase the industry's ability to solve more complex problems locally.
- It was noted that during crises or downturns, newcomers, individuals, and corporations were more willing to partner to undertake radical innovations; for instance, many university-based makerspaces in Kenya built low-cost ventilators at the onset of COVID-19.
- A circle of coexistence between startups and companies, strong networks (regional, global, interpersonal, campus), and bridging assets and nodes to validate ideas, concepts, and commercialization are all necessary for the capacity building that will be needed inside educational institutions.
- 1. https://www.emerald.com/insight/content/doi/10.1108/REGE-04-2021-0077/full/html
- https://www.fdiintelligence.com/content/feature/economic-development-links-to-university-spinout-boom-80867
- 3. <a href="https://www.frontiersin.org/articles/10.3389/fpsyg.2021.732388/full">https://www.frontiersin.org/articles/10.3389/fpsyg.2021.732388/full</a>

## Bibliography

- 1. https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=KE
- 2. https://datareportal.com/reports/digital-2022-kenya
- 3. <a href="https://www.doingbusiness.org/content/dam/doingBusiness/pdf/db2020/Doing-Business-2020\_rankings.pdf">https://www.doingbusiness.org/content/dam/doingBusiness/pdf/db2020/Doing-Business-2020\_rankings.pdf</a>
- 4. <a href="https://disrupt-africa.com/2022/02/04/african-tech-startup-funding-in-2021-more-and-more-for-the-big-four/">https://disrupt-africa.com/2022/02/04/african-tech-startup-funding-in-2021-more-and-more-for-the-big-four/</a>
- 5. <a href="https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=KE">https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=KE</a>
- 6. https://data.worldbank.org/indicator/SP.POP.TOTL?locations=KE
- 7. https://datareportal.com/reports/digital-2022-kenya
- 8. https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=KE
- 9. <a href="https://www.worldbank.org/en/country/kenya/overview">https://www.worldbank.org/en/country/kenya/overview</a>
- 10. <a href="https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/Digital-Entrepreneurship-in-Kenya-2014.pdf">https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/Digital-Entrepreneurship-in-Kenya-2014.pdf</a>
- 11. https://thebigdeal.substack.com/p/mambo-eastern-Africa
- 12. https://www.startupblink.com/startup-ecosystem/kenya
- 13. https://www.statista.com/statistics/1092626/number-of-unicorns-in-the-world-by-region/
- 14. https://www.investindia.gov.in/
- 15. <a href="https://www.centralbank.go.ke/2021/07/15/2020-survey-report-on-msme-access-to-bank-credit/">https://www.centralbank.go.ke/2021/07/15/2020-survey-report-on-msme-access-to-bank-credit/</a>
- 16. https://tracxn.com/explore/Startups-in-Kenya
- 17. <a href="https://techcrunch.com/2022/08/09/in-africa-kenyan-startups-have-so-far-recorded-highest-funding-growth-this-year/">https://techcrunch.com/2022/08/09/in-africa-kenyan-startups-have-so-far-recorded-highest-funding-growth-this-year/</a>
- 18. 2019-H12022 Africa The Big Deal Database
- 19. https://www.startupblink.com/startup-ecosystem/kenya
- 20. <a href="https://lp.startupblink.com/report/">https://lp.startupblink.com/report/</a>
- 21. <a href="https://www.worldbank.org/en/topic/smefinance">https://www.worldbank.org/en/topic/smefinance</a>
- 22. <a href="https://kippra.or.ke/characteristics-of-kenyan-msmes-relevant-to-the-proposed-kenya-credit-guarantee-scheme">https://kippra.or.ke/characteristics-of-kenyan-msmes-relevant-to-the-proposed-kenya-credit-guarantee-scheme</a>
- 23. https://www.kenpro.org/papers/sme-policy-in-kenya.htm
- 24. https://kepsa.or.ke/
- 25. https://statistics.knbs.or.ke/nada/index.php/catalog/69
- 26. https://www3.weforum.org/docs/WEF\_GGGR\_2021.pdf
- 27. <a href="https://www.gsma.com/mobilefordevelopment/blog/618-active-tech-hubs-the-backbone-of-africas-tech-ecosystem/">https://www.gsma.com/mobilefordevelopment/blog/618-active-tech-hubs-the-backbone-of-africas-tech-ecosystem/</a>
- 28. <a href="http://www.parliament.go.ke/sites/default/files/2018-11/Report%20from%20NG-CDF%20Digital%20Innovation.pdf">http://www.parliament.go.ke/sites/default/files/2018-11/Report%20from%20NG-CDF%20Digital%20Innovation.pdf</a>
- 29. <a href="https://afrilabs.com/afrilabs-and-association-of-countrywide-innovation-hubs-kenya-sign-mou-to-support-grassroots-hubs/">https://afrilabs.com/afrilabs-and-association-of-countrywide-innovation-hubs-kenya-sign-mou-to-support-grassroots-hubs/</a>
- 30. https://www.enpact.org/wp-content/uploads/2019/08/print-nairobi.pdf
- 31. <a href="https://www.technopolis-group.com/wp-content/uploads/2020/02/Potential-of-the-fourth-industrial-revolution-in-Africa.pdf">https://www.technopolis-group.com/wp-content/uploads/2020/02/Potential-of-the-fourth-industrial-revolution-in-Africa.pdf</a>

- 32. <a href="https://www.kenyanews.go.ke/cs-mucheru-challenges-universities-to-establish-business-hubs/">https://www.kenyanews.go.ke/cs-mucheru-challenges-universities-to-establish-business-hubs/</a>
- 33. https://unesdoc.unesco.org/ark:/48223/pf0000381538
- 34. https://www.statista.com/statistics/1135785/university-enrollment-in-kenya/
- 35. <a href="https://cms.icta.go.ke/sites/default/files/2022-04/Kenya%20Digital%20Masterplan%202022-2032%20Online%20Version.pdf">https://cms.icta.go.ke/sites/default/files/2022-04/Kenya%20Digital%20Masterplan%202022-2032%20Online%20Version.pdf</a>
- 36. https://assek.ke/
- 37. https://www.uwezo.go.ke/
- 38. <a href="https://assek.ke/index.php/media-centre/blog">https://assek.ke/index.php/media-centre/blog</a>
- 39. <a href="http://www.kiep.go.ke/">http://www.kiep.go.ke/</a>
- 40. https://www.whitebox.go.ke/
- 41. <a href="https://konza.go.ke/2021/10/25/konza-technopolis-development-authority-seeks-to-partner-with-the-nairobi-securities-exchange/">https://konza.go.ke/2021/10/25/konza-technopolis-development-authority-seeks-to-partner-with-the-nairobi-securities-exchange/</a>
- 42. <a href="https://www.ecofinagency.com/finance/2710-43132-kenya-nse-reaches-deal-to-connect-tech-startups-with-potential-investors">https://www.ecofinagency.com/finance/2710-43132-kenya-nse-reaches-deal-to-connect-tech-startups-with-potential-investors</a>
- 43. https://institute.global/policy/supercharging-africas-startups-continents-path-tech-excellence
- 44. <a href="https://www.industrialization.go.ke/index.php/policies/99-micro-and-small-enterprises-act-2012">https://www.industrialization.go.ke/index.php/policies/99-micro-and-small-enterprises-act-2012</a>
- 45. <a href="https://www.industrialization.go.ke/index.php/policies/99-micro-and-small-enterprises-act-2012">https://www.industrialization.go.ke/index.php/policies/99-micro-and-small-enterprises-act-2012</a>
- 46. https://www.lexology.com/library/detail.aspx?g=a0ced74c-b1c0-4d3f-954a-d72855044ea3
- 47. https://techhiveadvisory.org.ng/wp-content/uploads/2022/01/Start-Up-LAws.pdf
- 48. https://www.gov.uk/topic/business-tax/investment-schemes
- 49. <a href="https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa.html">https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa.html</a>
- 50. <a href="https://mcit.gov.eg/upcont/Documents/Reports%20and%20Documents">https://mcit.gov.eg/upcont/Documents/Reports%20and%20Documents</a> 122022000 ar AR T he African Tech Startups Funding Report 2021.pdf
- 51. <a href="https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/Digital-Entrepreneurship-in-Kenya-2014.pdf">https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/Digital-Entrepreneurship-in-Kenya-2014.pdf</a>
- 52. <a href="https://thebigdeal.substack.com/p/mambo-eastern-Africa">https://thebigdeal.substack.com/p/mambo-eastern-Africa</a>, the list may not be exhaustive and may have exclusions
- 53. <a href="https://thebigdeal.substack.com/p/mambo-eastern-Africa">https://thebigdeal.substack.com/p/mambo-eastern-Africa</a>
- 54. <a href="https://www.safaricom.co.ke/media-center-landing/press-releases/safaricom-spark-fund-invests-in-agri-tech-startup-iprocure">https://www.safaricom.co.ke/media-center-landing/press-releases/safaricom-spark-fund-invests-in-agri-tech-startup-iprocure</a>
- 55. https://tracxn.com/explore/HealthTech-Startups-in-Nairobi
- 56. Karitu, B., Wangondu, W. & Muathe, S. (2022). A theoretical route towards conceptualization of startups in emerging markets. *International Journal of Research in Business and Social Science*. Vol.11. No.4. Pp. 2147-4478
- 57. Kenya Gazette Supplement No. 163, Startup Bill (2020), Senate Bills No. 16, Nairobi, Kenya.
- 58. Lawyers Hub, (2020). Policy Priorities for Startups in Kenya; a report by the Lawyers Hub in partnership with the National Assembly Office of the Leader of Majority and The Kenya National Innovation Agency (KENIA).