

Information and communication technologies and job creation in Kenya

This one-pager provides an overview of ICT-sector job creation in Kenya. Information and communication technologies (ICTs) have expanded remarkably in Kenya over the past decade. In particular, mobile telephony and applications like [MPesa](#), as well as the use of ICT applications in the provision of government services and in banking, transportation and agribusiness, have been on the rise. ICT infrastructure has improved with the operationalization of four international fibre optic cables, expanding Kenya's national fibre optic backbone and allowing high mobile penetration, which stood at [88%](#) in 2015. Kenya is increasingly seen as an emerging ICT hub, evidenced by the fact that global ICT firms such as Google, IBM, Cisco, Microsoft and Oracle have their regional offices in Nairobi. Furthermore, the [Kenya National ICT Masterplan 2014-2017](#) aims to make Kenya one of the top ICT global hubs.

Kenya's employment challenges

High unemployment, especially among youth, as well as underemployment and precarious work are key employment challenges and top development priorities in Kenya. Based on the [2009 Census](#), the rate of unemployment is 10.4% for the 15-35 age group, increasing to 14.4% for the 15-24 age group. In terms of gender, a study by the [Agha Khan University](#) found that unemployment in Kenya was highest among women compared to men and among rural women compared to young women in the urban areas. Precarious work, which refers to involvement in informal activities, especially in agriculture, which have low productivity, is also high. The formal sector, which has high productivity and growth, creates very few job opportunities. This has not changed since 1972 when ILO's report [Employment, incomes and equality a strategy for increasing productive employment in Kenya](#) warned of declining formal sector employment. For example, in 2015, [of the 800,000 jobs created in the economy, 713,000 were in the informal sector](#). Therefore, the challenge is not simply to create more jobs, but to focus on quality jobs and [productive employment](#). The ICT sector, which continues to grow with an increasing contributing to GDP, is one of the sectors expected to address employment challenges in Kenya.

Job creation through ICT development

A review of Kenya's national development plans and policy documents reveals that ICTs are used to promote efficient public service provision, are viewed as an enabler of development and are considered a productive sector. The economic pillar of the country's long-term development plan, Vision 2030, considers ICTs and related business process outsourcing (BPO) as important drivers of economic growth and key to job creation. ICTs for job creation was hailed in the study report [ICT-enabled youth employment in Kenya in 2013](#), which concluded that the ICT sector is Kenya's most promising source of quality youth employment. Furthermore, the digital economy may contribute to inclusive development, because of its potential to create formal jobs that can be accessed by youth who are marginalized.

Initiatives to create jobs in Kenya's ICT sector

Due to enthusiasm about the potential contribution of ICTs to job creation, a number of interventions have sought to leverage this potential.

- *ICT skills training and development.* These projects are initiated to enhance the employability and capacity of youths to start their own ICT ventures. They are based on the logic that there is a mismatch between available jobs (employers' need) and the skills and competences that job seekers have. These initiatives include the [Kenya Youth Empowerment Project](#), which offers youth training and internships in different sectors including ICTs, [government internships for ICT graduates](#), the [African Centre for Women in ICT](#) and [Nairobites](#). Related to this are software development projects that seek to enhance coding or software development competencies among youth, such as [Chipuka-Software Development Certification](#), and coding boot camps, such as those offered by [AkiraChix](#) and [Tech Republic Africa](#).

- *Technology hubs and incubators.* These are organizations that provide incubation services (such as working spaces and business support services) to start-ups that have an IT component. They include [Nairobi Incubation Lab \(Nailab\)](#), [iHub](#) and [KIRDI ICT incubation](#). Notably, universities in Kenya have established business incubation centres, which focus on many areas including ICTs (such as [Chandaria Business Innovation and Incubation Centre](#), [ilabafrika](#), [DeHUB](#), [C4DLab](#) and the [Nairobi Industrial and Technology Park- NTIP](#)). A study by [iHub](#) found that ICT start-ups employed a median of four people, have low growth rate and a limited potential to create jobs, and largely enable, rather than create, jobs.
- *ICT-enabled entrepreneurial ventures that use online platforms and/or apps and job matching platforms.* Some of these have undergone some form of incubation. These include ICT agro-entrepreneurs who are using ICTs to improve access to information, finance and markets along agricultural value chains (such as [M-Shamba](#), [FarmDrive](#), [Mkulima Young](#) and [Agritech Solutions](#)). Some of these firms have reported progress. For example, [Mkulima Young](#), an online platform, has enabled over [60,000 people to access markets for agricultural produce](#). Others firms, like [Sunrise Tracking](#) and [East African Data Handlers](#), are leveraging ICT applications for use in other sectors.
- *Creation of digital job opportunities and sensitizing youth about opportunities.* These initiatives include BPO firms, technology parks such as [Konza Technology Park](#) and local content programmes like [Tandaa Digital Content](#). By 2012, the [BPO sector](#) had created over 7,000 jobs, including jobs for youth as customer care agents, data entry clerks, transcribers, and online researchers. Initiatives that promote digital jobs and sensitize youth about such opportunities include [Niko Job](#), digital inclusion projects such as [digital villages/pasha centres](#), and the [Wezesha Initiative](#). Blogging is also emerging as a viable business venture in which many young people engaging.

Remaining challenges

- Although ICTs have led to the creation of many jobs, the number of jobs created remains low compared to the number of entrants to the labour market. This means that ICTs for job creation remain necessary, but not sufficient, to address youth unemployment in Kenya.
- Capacity gaps exist between ICT skills for job entrants and those required to move from low-level ICT services to the creation of ICT scalable solutions that are also attractive beyond local markets.
- There are disparities in ICT infrastructure and services in different urban areas and between urban and rural areas, as well as in terms of gender equitable ICT job creation. Notable is the fact that, although Internet access is high, most people access it through mobile devices. Connectivity and the cost of access remains a challenge.
- Challenges also exist in the ICT start-up incubation ecosystem in Kenya. In a recent [Blog post](#), the author argues that most start-ups in Kenya are not scalable, because they do not focus on adding value by addressing the challenges that the country faces. A related challenge is that some people establish start-ups to win competitions and receive grants, without a clear business model on how to scale up their venture.

Policy considerations

- Due to fewer jobs created in the ICT sector in Kenya, diverse job creation approaches are needed. These could include strategies to transform other sectors such as agriculture and manufacturing, which may offer opportunities to innovate, develop capabilities and diversify markets, leading to more digital jobs.
- Start-ups should be supported through [entrepreneurial development programmes](#), which offer opportunities to learn from failures and greater connection between investors and high-potential entrepreneurs. The aim is to provide an appropriate environment that covers [proximity to innovation clusters](#), [mentoring in addition to providing funding](#).
- ICT capacity and skills development programmes should equip youth with a wide range of competences for digital jobs. The focus should not just be on basic computer and digital literacy. Innovative approaches, including e-learning and sensitization on relevant learning platforms such as massive open online courses (MOOCs), may be useful.

Author: [Obadia Okinda Miroro](#)

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