

## Africa: on the cusp of an innovation revolution

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**While emerging economies have been driving global growth over the last ten years, the gap vis-à-vis developed economies is still very substantial. Skill gaps in particular severely constrain economic activity - most businesses are small and informal and unable to provide training. These countries are already becoming centers of innovation but there is still a long way to go. Through Seedstars' experience and achievements, we understand that investment in education and empowerment based on the right set of skills are critical vectors for innovation.**

It took over one hundred years to get to a billion telephone users, but less than ten years to get to a billion smartphone users.

*I firmly believe in the power of technology to elevate the lives of those who previously had no chance of accessing basic services.*

In regions like Africa, mobile phones are leapfrogging an entire generation of technology (and related infrastructural shortcomings), giving users access to faster and more efficient solutions. According to the World Bank, 68% of Kenyans have no access to power from the grid but around 95% are mobile phone users 1. Nevertheless, in late 2015, 4.1 billion people did not yet have access to the internet and over 3 billion people - nearly all in developing countries - will still be offline in 2020 2. These numbers illustrate the dichotomy between basic human needs and new consumer habits being addressed by African entrepreneurs to meet people's needs. Take the example of M-KOPA Solar which has already connected more than 330,000 homes 3 in Kenya, Tanzania and Uganda to solar power and raised an impressive US\$31.45 million in funding 4. Or M-Pesa 5, a company that allows millions of mobile phone users to send and receive money and pay bills even if they have no bank account or only limited access to one.

*I could choose numerous other examples that would perfectly illustrate that innovation and entrepreneurship are the means to achieving universal connectivity and impacting people's lives in emerging markets.*

### CLOSING THE GAP BETWEEN EMERGING AND DEVELOPED MARKETS: EDUCATION AS AN ECONOMIC CATALYZER

While emerging markets have been driving global growth over the last ten years, the gap vis-à-vis developed economies is still substantial. If we consider GDP per capita (which reflects both an economy's size and standards of living), there is still a long way to go before Emerging Markets

(<US\$10,000) begin to match the performance of North American (>US\$50,000) or European markets (>US\$25,000) 6.

Nevertheless, some countries have found a way of boosting growth. Back in 1965, South Korea's GDP per capita was nearly twice Nigeria's. Today, it is twenty-two times bigger. How did they manage this? The key to success has been focusing on education and employment.

Governments and the public sector have a big say in the country's development and, consequently, on its GDP per capita. For every US\$1 spent on education, US\$10-\$15 is generated in economic growth 7. Empowering people with the right skills was exactly what South Korea managed to do based on a clear workforce specialization strategy and higher value-added services.

First, the State developed business policies around higher value added industries such as electronics. Second, they deployed a range of programs to develop the necessary skills, allowing future workers to choose between a technical, vocational and general education. Third, education and training policies were linked to economic policies. As a final measure, there was a focus on sequencing and education and training were linked to the stage of economic growth 8.

Recognizing the strong correlation between education and socio-economic development, African countries have gradually increased related public spending by more than 6% a year and investment in education currently eats up 18.4% of government budgets 9.

But there is still a long way to go. In Nigeria, for example, more than 10.5 million children aged between 6 and 17 are not in school 10. McKinsey & Company believes that Nigeria's poor schools produce an adult population with large skill gaps that severely constrains economic activity and government effectiveness. On-the-job training is usually not an option: most businesses are small and unable to provide training. Larger companies typically do not invest as much as they should in training 11. So what can be done?

Innovation in education is one of the answers and game-changing, tech-based solutions are being deployed to provide cheaper, accessible and higher-quality education. For example, Andela 12, a Nigerian startup coding school that recently received \$24 million from the Chan Zuckerberg Initiative, turns local talent into world-class developers and partners the corporates in scaling their technology teams and providing them with appropriate training methodologies. Our experience within Seedstars has taught us that only education can create an environment conducive to start-ups. It helps grow future tech companies through mentorship, developing technical and management skills, connecting to relevant networks or simply fostering knowledge about what is happening all around the world.

## PRIVATE SECTOR INITIATIVES CAN MAKE THE DIFFERENCE

Education not merely enhances quality of life and economic growth; it also boosts employment opportunities and job prospects. An educated and skilled population is attractive to potential investors and investment is exactly what African labor markets need right now.

High unemployment rates are also shaping the African labor market, generating jobs in the informal economy which absorbs those unable to find employment in the formal sector. Many graduates are starting their own businesses instead of opting for wage employment 13. We view entrepreneurship as part of the solution.

Over the next decade, more than 1 billion young people will enter the global labor market and 90% of jobs will be created by the private sector 14. This is where entrepreneurship comes in: according to US statistics, companies less than 5 years old (i.e., startups and SMEs) create most jobs 15 and these are precisely the type of companies in Emerging Markets that Seedstars is focusing on. Via diversified, early-stage investments and micro-funding, Seedstars mitigates risk by working with local investors on strong business models to ensure positive outcomes in terms of job creation and return on investment.

However, we often forget that unemployment is not the only labor market challenge. There are over 1.5 billion people in vulnerable employment, representing nearly half the global workforce. For the ILO, the situation is especially worrying in Sub-Saharan Africa where over 70% of workers are in

vulnerable employment, far higher than the global average of 46.3% 16.

The number of stable jobs needs to be boosted. According to NESTA, the UK's innovation foundation, high growth companies have a greater impact: 6% of firms generate over 50% of new jobs and GDP growth 17. But high-growth does not necessarily mean high-tech. NESTA and the Kauffman Foundation claim that the majority of high-growth companies are from non-IT sectors like financial services, real estate and business services. They use technology as a platform that enables them to be pioneers in their own industries and to grow faster.

It is crucial for each country to find a balance between labor-intensive, low-skill industries that provide jobs for many, and more knowledge-intensive sectors such as those developed as part of the strategy pursued by South Korea. In fact, this strategy included a planned, rapid rise in labor-intensive, export-oriented industries that drives demand for basic skills. In addition, the government developed vocational and technical secondary education to develop skills for certain targeted industries. At the same time, it provided incentives to SMEs to upgrade skills as the economy became more sophisticated and technology-driven. In addition, the government developed vocational and technical secondary education to develop skills for certain targeted industries. At the same time, it provided incentives to SMEs to upgrade skills as the economy became more sophisticated and technology-driven 18.

These knowledge-intensive industries now need well-educated people with the ability to acquire and apply new knowledge. Computer literacy and ability to select relevant information has become more important than basic literacy as people are increasingly engaged in processing information.

## AFRICA – THE NEW INNOVATION FRONTIER

Emerging markets in general – and African markets in particular – are already becoming centers of innovation but there is still a long way to go. Investment in education is needed to empower people with the right set of skills. As South Korea has shown, each country needs to create an integrated strategy aligned with its own development plan and labor market needs. Such a dramatic transformation in just 40 years would not have been possible without a strong education plan, a well-coordinated system and a long term vision. Governments can use the private sector to facilitate access to good quality education that produces not only a more educated and wealthier population, but a community with a more entrepreneurial mindset capable of innovating in due time.

African entrepreneurs have been able to leverage the best available technologies to solve local problems using local solutions. Success is not always based on disruptive technologies but on innovative ways of tapping into consumer habits. Governments need to continue to liaise with companies and integrate the most effective platforms into their public institutions.

Here are some of the rising African stars from [seedstarsworld.com](http://seedstarsworld.com) who are combining technology and a creative approach to change the lives of millions of people:

- [SimplePay](#) is a cheap, secure online payment service created in Nigeria that allows merchants to accept several payment methods;
- [Giraffe](#) is a South African mobile app that connects businesses and medium skilled staff quickly and cheaply;
- [Omniup](#) is an innovative Moroccan advertising solution offering free Wi-Fi in public places;
- [SolarizEgypt](#), an Egyptian certified solar EPC, designs, installs and commissions PV solar power plants and allows consumers to combine conventional energy supply with solar power.

### Box 1: Seedstars in a nutshell

Seedstars – a Swiss-based international group – strives to impact the lives of people in emerging markets through technology and entrepreneurship. It connects stakeholders within ecosystems, builds companies from scratch with public and private partners and invests in the top entrepreneurs. Thanks to “startup scouting”, company building and acceleration programs, the team has access to entrepreneurs, investors, incubators, corporations and government agencies across more than 65 countries. The Seedstars group includes: grammes de création et d’accélération d’entreprises, les équipes de Seedstars peuvent accéder aux entrepreneurs, aux incubateurs, aux grandes entreprises et aux institutions gouvernementales dans plus de 65 pays. Les différentes entités du groupe sont :

- **Seedstars World**: organizes the worldwide startup competition on the ground in 65+ countries with four regional summits and a global summit in Switzerland. Its objective is to identify outstanding startups and provide them with value added services such as mentoring, networking and access to funding.
- **Seedstars Growth**: four-month virtual program to accelerate 100+ startups in the Seedstars network over the next three years.
- **Seedspace**: network of co-working & co-living spaces, now present in 17 countries with local partners. The spaces facilitate more engaged programs and organize events for a community of “change-makers” seeking to impact their communities.
- **Seedstars Academy**: six-month program to train aspiring entrepreneurs.

### Box 2: Seedstars Academy

Seedstars Academy is a 24-week hands-on program that aims to create a generation of digital change-makers capable of growing the use of the Internet and digital technologies in emerging economies, and ultimately boosting GDP based on productivity gains and innovation. Each participant is paid a salary to become a tech entrepreneur, while learning from successful mentors and investors and working on exciting MVPs.

By addressing the imbalance between academic knowledge and the skills required to fill gaps in the economy, the program intends to help each country combat rampant youth unemployment and underemployment. It is currently running in Lagos, Nigeria and due to launch in 13 other cities over the next 18 months (Cape Town, Casablanca, Cairo, Abidjan, Tehran, Buenos Aires, Mexico City, Bogota, Lima, Manila, Jakarta, Bangkok and Ho Chi Minh City). Examples of projects from this two-month old program include [www.quickcheck.io](http://www.quickcheck.io), [www.invoizpaid.com](http://www.invoizpaid.com), [www.milefriend.com](http://www.milefriend.com) and [www.getbashi.com](http://www.getbashi.com).

Footnotes:

1 *Mobile Phone Usage at the Kenyan Base of the Pyramid*, World Bank, 2012

2 *State of Connectivity 2015*, internet.org by Facebook

3 M-KOPA “houses”: <http://solar.m-kopa.com/about/company-overview/>

4 M-KOPA funding: <http://disrupt-africa.com/2016/04/m-kopa-solar-connects-5000-ugandan-homes-to-payg-solar/>

5 For more information about M-Pesa, read the article of Amolo Ng’weno, [Development in Africa through mobile money democratization](#) released in *Private Sector and Development (PS&D)*

- 6 *World Development Indicators*, World Bank, 2015
- 7 *Education for All Global Monitoring Report*, UNESCO, 2012
- 8 *Youth and skills: putting education to work*, UNESCO, 2012
- 9 *State of Education in Africa Report 2015*, The Africa-America Institute
- 10 *Youth and skills: putting education to work*, UNESCO, 2012
- 11 *Nigeria's renewal: Delivering inclusive growth in Africa's largest economy*, McKinsey, 2014
- 12  
<https://andela.com/coverage/andela-raises-24-million-mark-zuckerberg-priscilla-chans-fund-train-african-engineers/>
- 13 *State of Education in Africa Report 2015*, The Africa-America Institute
- 14 *IFC Jobs Study: Assessing private sector contributions to job creation and poverty reduction*, International Finance Corporation, 2013
- 15 *Net Job creation*, U.S. Census Bureau's Business Dynamics Statistics, 2012
- 16 *World Employment and Social Outlook: Trends 2016*, International Labour Organization
- 17 *The vital 6 per cent - How high-growth innovative businesses generate prosperity and jobs*, NESTA, 2009
- 18 *Youth and skills: putting education to work*, UNESCO, 2012