

## Top 4 digital opportunities for urban economic growth

Tags: Economic Growth, Programme Design, Digital, Urban, Infrastructure

The digital revolution provides significant opportunities for developing countries to diversify their economies, improve sector productivity, create informal sector support services and enable formalisation, build human capital and promote localised innovation.

However, in order for such opportunities to enable inclusive growth and poverty reduction, governments and donors need to: support local innovation ecosystems; support development of new digital sectors; enable equal access to digital job opportunities; help develop the digital tools needed by the informal sector to improve productivity and enable formalisation; and empower young people with digital skills needed in the 'new digital economy'.

This paper therefore sets out the key challenges that digital solutions could address, provides a skeleton theory of change for how digital solutions can address the challenge of low urban business productivity, and then explores the four key opportunities that developing country governments and donors must consider if they wish to make their urban areas centres of inclusive and sustained economic growth. **A wide range of papers on how digital solutions catalyse inclusive urban growth can be found on the [ICED website](#).**

Urban economies in developing countries do not currently provide the diversified economic opportunities needed to lift urban dwellers out of poverty. Cities currently generate more than 80% of global GDP with 100m people expected to move to cities by 2025 in Africa alone. However, whilst diversified urban economies have delivered increased productivity and pulled people out of poverty, the rapid urban growth seen in many non-diversified cities in emerging economies is not yielding such outcomes. In towns in non-diversified economies 84% of jobs are vulnerable, versus 55% in large cities in the handful of economies that have managed to diversify. The majority of the urban workforce is in the informal sector (61%), contributing up to 80% of GDP in some countries. Women are particularly disadvantaged by the lack of formal employment opportunities with informal jobs making up 92% of opportunities outside of agriculture. A key driver of low productivity in Africa in particular is the reliance on resource exports, and lack of infrastructure to support higher productivity sectors. Annual labour productivity growth is low at 2-3%, and low income countries will be particularly susceptible to automation (shown to be inversely correlated with GDP) with the potential for low income countries to undergo premature de-industrialisation and zero-job growth.

However, if effectively leveraged, digital technologies can improve urban productivity, promote sector diversification and enable inclusive economic opportunity, growth and poverty reduction.

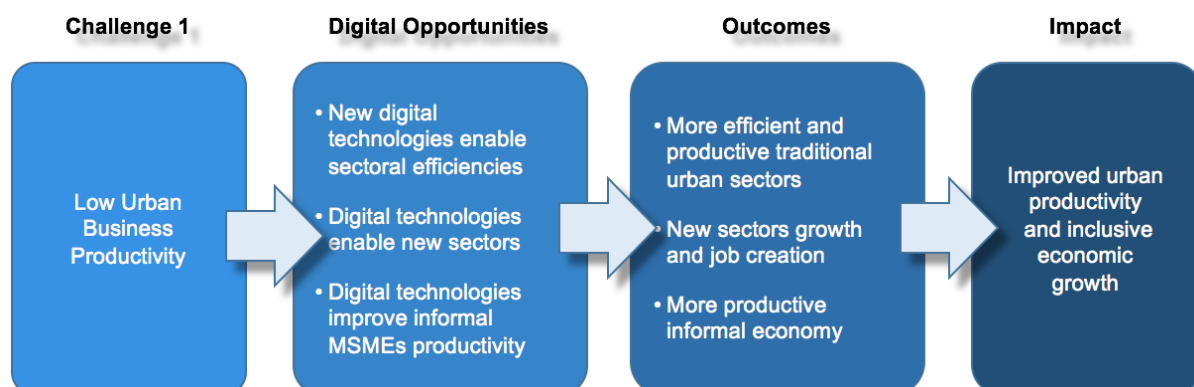


Figure 1: Theory of Change - Digital solutions address chronic low urban productivity

## Opportunity 1: Support Clustering for Economic Innovation

**Governments and donors can support the development of vibrant urban innovation ecosystems.**

National governments as diverse as South Korea, Finland, Denmark, and China have created clusters of industrial, academic and government institutions to drive economic innovation. Meanwhile in Africa Ethiopia is developing industrial nodes, around which broader innovation ecosystems could evolve if research institutions, tech innovation hubs and other support ecosystem services were 'designed in' to policy and near term plans.

Innovation clusters are often located in a city or urban region, and city governments have a significant role to play in supporting local innovation ecosystems, which in turn support urban economic diversification, job creation, and inclusion. Innovation labs, shared workspaces, innovation networks and events can all support entrepreneurial activity, provide peer learning, targeted entrepreneurship support for marginalised groups such as low-income youth, disabled and women, and improve urban competitiveness. Leading 'digital cities' such as London and New York have dedicated digital policies which support digital innovation, and 'Livings Labs' bringing together city officials with citizens, private sector and potential customers to design, pilot and testing of new technologies in urban environments from Barcelona to Mexico City. National and city governments can provide investor tax breaks, accessible innovation spaces, access to loans, supportive procurement frameworks, and city-level policy commitments that support a range of sectors and ecosystem players to achieve common outcomes.

## Opportunity 2: Diversifying Economic Sectors

**Digital opportunities can promote economic diversification, and improve productivity in traditional sectors.**

Governments, donors and the private sector can all play a role in supporting this transition. Technology, digital content and digital business services sectors are under-developed in emerging economies, but are a huge potential source of jobs and productivity growth. There is very limited local content available in Africa, with the majority of internet searches routing back to US or France and only 8 African countries where search engines provide access to majority local content<sup>1</sup>. Opportunities for local content creation include development and distribution of cultural media, and educational and informational content for citizens and businesses. Huge opportunities exist to support private and public sector content digitization and creation. Such activities are 'job rich', and activities such as public record digitization offer low-skilled work suitable for young people entering the job market and people with disabilities.

New gig working platforms also offer employment opportunities, however studies have shown there is often a significant bias against workers from many emerging economies and that unpaid time spent in securing work translates into very low per hour incomes<sup>2</sup>. Tech sector growth also provides opportunities for economic diversification. However there are many developing countries where users are unable to download or pay for apps and developers are unable to register or monetize their products due to app-store restrictions<sup>3</sup>. Government and donors therefore have a critical role to play in working with the private sector to ensure that youth, entrepreneurs and local businesses are able to access these new digital opportunities, through direct support to sector development, by working with private sector to enable equal access to marketplaces and developing policy which protects and provides safety nets for digital workers.

## Opportunity 3: A productive, formalised 'informal' economy

**Digital services can help improve informal sector productivity and promote formalisation.** 61% of urban employment is informal and makes up up to 80% of economic activity in some countries. Much informal sector activity revolves around small retail and low-value adding services. Studies have shown that small-scale entrepreneurs use their mobile phones to support business administration, customer support and businesses payments. As smart phones become increasingly accessible, there are huge opportunities to support entrepreneurs with digital services adapted to local markets. India has already led the way in developing local cloud accounting apps, financial services, and improved business advisory services and this model could be

---

<sup>1</sup> Annals of Association of American Geographers. Digital Hegemonies: The localness of search engine results. Ballatore, Graham and Sen <http://www.tandfonline.com/doi/full/10.1080/24694452.2017.1308240>

<sup>2</sup> Graham, M., Hjorth, I., Lehtonvirta, V. 2017. [Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods](#). *Transfer: European Review of Labour and Research*

<sup>3</sup> The Mobile App Divide (internet Society) [https://www.internetsociety.org/sites/default/files/report-MobileAppDivide-20151117-en\\_0.pdf](https://www.internetsociety.org/sites/default/files/report-MobileAppDivide-20151117-en_0.pdf)

replicated. Design of such services with specialist user needs in mind can also ensure productivity and income gains are experienced by all. Evidence from recent ICED studies for instance have shown that women entrepreneurs are less likely to access such services, unless they are designed with lower literacy levels in mind, are available in local languages, products meet women's business needs and their benefits are marketed clearly to women consumers.

Governments can also use digital solutions to help informal businesses formalise. Many small businesses also struggle with confusing local licensing and taxation requirements, citing these as key constraints to business growth. By making information on business environment issues easily accessible to entrepreneurs via digital platforms, and providing online support for business registration, tax and licensing payments via mobile money services governments can significantly reduce barriers to formalisation.

## **Opportunity 4: A skilled workforce for the 21st century**

### **Developing country governments must promote the skills needed to support digital opportunities.**

Automation and digital technologies are creating significant shifts in how businesses create and sustain jobs. In Ethiopia, Thailand, India and Nigeria 65-85%<sup>4</sup> of jobs are estimated to be prone to automation, and job losses will also be experienced unequally by men and women. Men are projected to gain one job for every three lost to technology advances, whilst women will gain only one for every five lost<sup>5</sup>. The impact on cities will be most profound with low-skilled manufacturing, and back-office functions being most affected. In response donors such as DFID are already supporting less developed countries to invest in manufacturing, in sectors which are adopting frontier technologies. However, countries will also need to pivot their education and training systems to meet the needs of modern manufacturing plants and urban business as they adopt new technology solutions and here again donors must play a role

This requires innovation not only in traditional education, but targeted skills development for young people, entrepreneurs and businesses. Foundational and functional digital skills must be built into primary and secondary education. Young entrepreneurs need training in e-commerce, digital marketing, use of online business and financial services. Women entrepreneurs and business owners may require additional support in finding the right services and gaining skills to meet their needs. Skills training for disabled people could enable them to access a much wider range of work opportunities, including gig-work, and remote business service roles enabling them to enter the workforce. Finally, tertiary education institutions need to embrace the wide range of digital tools that support professional development, from GIS, to data analytics tools and financial management software. Examples of private-sector led innovation include the vocational training programmes developed by such large Indian companies as TATA and INFOSYS who have established training academies for IT Services, electrical and operations technicians. However such a step-change could also benefit from the support of donors who possess sector-specific digital expertise, such as expertise supported by UK Future Cities Catapult.

### **India's Urban Economic Revolution**

Increased urban productivity in India has been driven by a dynamic network of universities, three decades of national policy and funding support for urban development, continuous improvement in local government capacity, and a new generation of Indians who have innovated products and services to meet the needs of urban dwellers. Indian businesses have innovated business service products, in local languages and which are compliant with local tax and licensing laws. The technology sector, founded in Bengaluru, has grown rapidly, provides millions of jobs and ICT market hubs have now emerged across India. Most importantly, India's vibrant education, research and innovation ecosystem has helped India design, pilot and scale a wide range of urban infrastructure solutions and ICT governance platforms which have helped transform cities.

---

<sup>4</sup> IDS Digital Development Summit Background Paper

<sup>5</sup> Amerasinghe 2016

### **Digital platforms enable education-to-employment brokering**

The Edukasyon.ph Employment Platform in the Philippines lists every course available in the country and curates thousands of scholarships. By brokering partnerships with paying private schools and government organisations, it also shifts the growing cost of education and training from the individual to the large corporation. More than 200,000 students have used the online platform, the first education-to-employment tool in an emerging market.

**For more information on how digital solutions can catalyse inclusive urban growth, or support in programme design please consult the ICED website or contact the ICED Facility at [connect@icedfacility.org](mailto:connect@icedfacility.org).**