

**BFA**



# Digital Commerce and Youth Employment in Africa

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Commissioned by the **Mastercard Foundation**

27 FEBRUARY 2019

## Foreword

The Fourth Industrial Revolution is well underway. Digital transactions circle the globe every second, data algorithms predict our behaviours, and companies have broken into trillion-dollar valuations. Across Africa, mobile phones have spread rapidly, driven both by decreasing costs and increasing benefits of connection. Financial services have reached millions of unbanked people, and some African countries have even launched satellites into space.

Despite these technology-driven changes, future opportunities are uncertain. The Mastercard Foundation is keenly interested in how this rapidly changing world will affect the opportunities available to African youth. Our mission is to create a world where everyone has the opportunity to learn and prosper, and we are focusing our efforts on tackling what we see is the most pertinent challenge to stability and prosperity in Africa—youth employment. Over 100 million young people will join the labour market in the next decade in Africa, and they are eager to acquire the necessary skills, connections, and opportunities to not only survive but to thrive in this changing world.

Where will employment opportunities come from for young Africans? We believe that digital commerce offers great potential for young people in the future. This is not only for young people to access work, but also to sell their goods. Many young people have innovative ideas and enterprises, and they are eager to gain access to information, markets, and connections through digital marketplaces.

The success of digital commerce in Africa is not assured, however. As this paper points out, there are many uncertainties shaping the trajectory of growth, and impact of these technology-enabled business models. This paper is a first step towards mapping out the possible scenarios for digital commerce in Africa – and thinking through what steps can be taken towards an inclusive digital commerce system that opens opportunities for young people. We welcome discussion and debate about the scenarios and pathways laid out in the paper, and we hope that the conversations spark more ideas and actions towards inclusive digital economies in Africa.

The Mastercard Foundation thanks BFA, and specifically David Porteous, Amolo Ng'weno, and their team, for their capable leadership of this project. We particularly appreciate the experts and young people who participated in the workshop at which the scenarios in this paper were discussed, and we know that the thinking contained in this paper is stronger thanks to their input.

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## Executive Summary

Digital commerce, or e-commerce as it is still more commonly known, has become a powerful force driving economic change around the world. Digital commerce deploys new technologies in ways that have effects on the physical economy of goods and services as well as on employment. It has not only disrupted entire economic sectors, such as retail and travel, but it has also undermined the effectiveness of traditional approaches to policy in areas such as cross-border taxation. Digital commerce is truly a double-edged sword; the question for policymakers in Africa is whether they can help wield it as a positive force for employment creation.

***This White Paper is based on a scenario-building project,*** which aimed to identify the key choices facing African policymakers in this emerging area. The project involved research and interviews with a range of people especially in three selected African countries where digital commerce is advancing -- Kenya, Nigeria and South Africa -- and two large reference countries, China and India. This was followed by a scenario-building workshop at which the different worlds were tested on a diverse group of stakeholders. This document is structured around the main questions that are on the minds of policymakers in Africa, and indeed elsewhere.



### What is digital commerce and how is it relevant for Africa?

Digital commerce is a broad term referring to the sale of goods and services online. It encompasses all forms of e-commerce or digital trade, as well as the gig or sharing economy. Digital commerce is still nascent across Africa, generally at levels of well below one percent of retail commerce, compared with 14 percent and above in market leaders such as the US and China. The scores for African countries on the UNCTAD E-commerce Readiness Index are generally low. However, growth in Africa appears to be accelerating in various places.

In these relatively early days, most African policymakers do not yet have a clear and comprehensive voice on the issues at stake or an agreed national stance toward them. Very few African countries have yet produced national digital commerce strategies. Even within national governments, the ministries of trade, commerce, labor, and information and communications technology (ICT) may well have different views about the potential of digital commerce and what to do about it. It is also not easy to draw firm conclusions for Africa from evidence of the effects of digital commerce elsewhere. On the one hand, there are rising concerns and even pessimism in Western countries about the effects of automation on jobs, while on the other hand there is growing optimism in China regarding digital commerce in all its forms.



## Is rising digital commerce inevitable?

Because of strong tailwinds, such as increased internet connectivity and the growing reach of domestic digital payment systems, it is all but certain that digital commerce will continue to grow. However, there are material uncertainties beyond the control of any one African country policymaker regarding the way in which the international or regional approaches to digital commerce will play out in the next 10 years. For example, it is possible that agreements could emerge around the complex set of policy issues at the level of both international and regional bodies (e.g., the World Trade Organization, the Organization for Economic Co-operation and Development, and the Universal Postal Union among the former, and the African Union or even the Southern African Development Community and the East Africa Community among the latter). This convergence could create an enabling general environment for digital commerce. In this possible future world, national policymakers could seek to influence emerging wider frameworks to ensure that these agreements support the growth of economic opportunity and employment within their countries. However, in a fragmenting global polity, convergence might well not be the outcome; instead, countries might be forced to adopt their own approaches in more of a patchwork fashion. But rather than speculate about which world will result, scenario thinking -- the heart of this exercise -- is about “future-proofing” policy options within a feasible set of different future settings.



## How does digital commerce link to employment?

Accelerating digital commerce alone does not assure positive outcomes for employment. In developed markets employees previously in formal jobs have become “dependent contractors”, and not always by choice. However, our research found evidence of three channels through which digital commerce is shaping employment opportunities. The first is directly, through boosting employment in the expanding ecosystems forming around digital superplatforms. Amazon has become the second-largest private employer in the US, and the Alibaba Group, which has tripled its own workforce in China in the past five years, has an even more substantial impact through its complex ecosystem of logistics platforms and other supporting sectors. The second channel has the indirect effect of reducing barriers to entry and scale for smaller enterprises. The evidence for this comes mostly from China, where researchers have found that small and medium enterprises (SMEs) established around enterprise zones (known as Taobao villages) are likely to be a more recent development. Founded by newcomers to the region, they also require far less working capital because of the ways in which merchants are paid. More fundamentally, through the third channel digital platforms reshape the nature of work itself. This is most visible in the effect of international gig platforms of various sorts, from TaskRabbit to Uber. These and others are also rapidly emerging across Africa. Most work in Africa today takes place in the so-called informal sector. The International Labor

Organization (ILO) has estimated that 85 percent of employment in Africa is informal. For informal workers in Africa, the spread of digital commerce is less of a threat (removing rights they do not have) than an opportunity to embark on a journey of progressive formalization. There is a substantial group of workers who will enter the African labor market between now and 2030 who will be digital commerce consumers using their smartphones to buy online. With a supportive policy environment, this group of workers may also become producers, generating incomes from diverse sources with a route to receiving forms of benefits and protection on a spectrum between today's limited but formal jobs sector and the vast but unsupported informal sector. To distinguish this digitally connected group, they are named *iWorkers*, and under different assumptions about growth they may make up more than 10 percent of the labor force by 2030.



Considering their initial market conditions and the emerging scenarios in which they find themselves, African policymakers still have choices about implementing a set of “no regret” measures, which will inform and equip them to engage more successfully both locally and internationally with digital commerce as it spreads. These include collecting better data locally, monitoring international developments, encouraging training on the issues for local policymakers, and ensuring that valuable digital commerce skills, such as digital marketing and relationship management -- not only technical skills such as coding -- are widely taught. However, policymakers can do more than wait and see. This report makes the case for a “test-and-learn approach”, especially in the critical areas where national labor and tax laws may create barriers that exacerbate the formal-informal employment divide. There is a strong case to be made for experimenting with policy “sandboxes”, in which the effects of waiving certain existing laws can be tested and observed and the take-up of new forms of employment contracts and packages of portable contributory benefits can be trialed.



In its nascent state in Africa, digital commerce may be most susceptible to influence now. However, the window of opportunity to shape the national environments in which digital commerce plays out may not stay open for much longer. The outcomes of international and continental negotiations over the next two to five years will shape the landscape of choice one way or the other. Meanwhile, digital commerce is advancing inexorably through the startup of new e-tailers across Africa and the ongoing expansion of large platforms into new markets. In the face of these sweeping changes, doing nothing is inadvisable. Instead, African policymakers can start to engage around a menu of choices tailored to their domestic circumstances and their level of ambition and vision in this important new area.

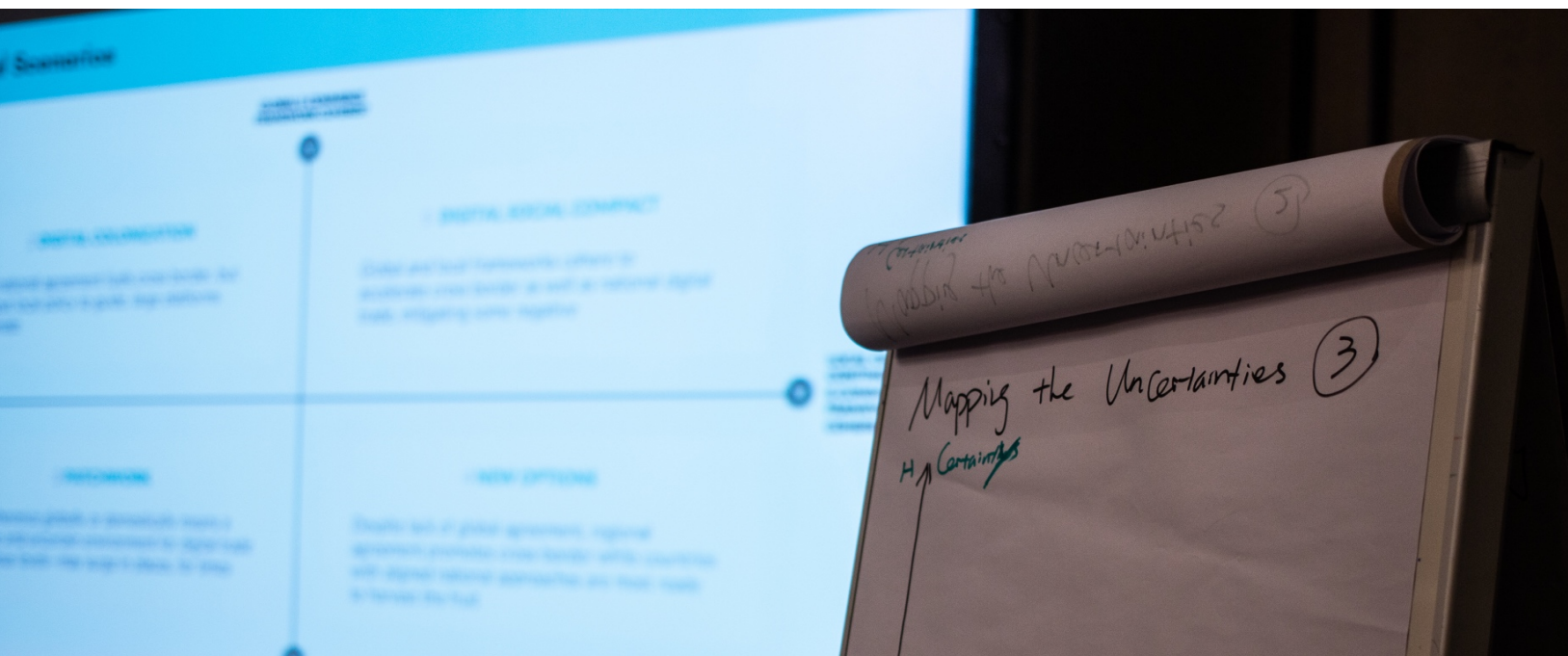


## Introduction

Governments everywhere wrestle with the challenges of promoting “sustained, inclusive and sustainable growth, full employment and decent work for all,” the eighth Sustainable Development Goal on the UN’s 2030 Agenda. Within this goal, “dignified and fulfilling” work for young people is a particular concern in Africa. This White Paper examines whether digital commerce<sup>1</sup> can be part of the solution. Digital commerce harnesses the cluster of technologies -- robotics, the Internet of Things, cloud computing, data analytics, and artificial intelligence -- at the heart of what has been called the Fourth Industrial Revolution. It does so in ways that may have profound effects on the real economy in goods, services, and employment. Digital commerce is driving the wider phenomenon of the digitization of the economy, which is already disrupting entire sectors, such as retail and travel, globally. It has also deeply challenged traditional laws and policies in areas such as cross-border trade and taxation as it reshapes global value chains. While it is undoubtedly an engine of change, is digital commerce always or mainly an engine of sustainable development that will create more employment opportunities than it destroys?

To crystallize the issues and understand the dynamics surrounding digital commerce and its possible impact on youth employment in Africa, BFA embarked on a scenario-building exercise. We drew on burgeoning literature as well as country-level dipstick research in five countries in order to answer this driving question: **Which choices by African policymakers will increase the positive effects of digital commerce on employment outcomes, especially for youth, by 2030?** We report our findings in this paper, which we have organized into five parts:

1. What is digital commerce, and how is it relevant to Africa?
2. Is rising digital commerce inevitable?
3. How does digital commerce affect employment?
4. What options do African policymakers have?
5. And why is this important now?







## Section 1 **What Is Digital Commerce and How Is It Relevant to Africa?**

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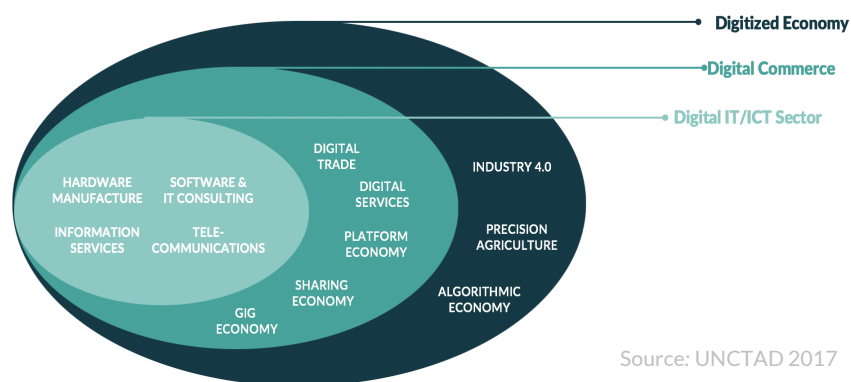
*“From an African perspective, this means that e-commerce has the potential to contribute towards increasing intra-African trade, which currently stands at around 18 percent and therefore help realize the objectives of the Boosting Intra-African Trade Action Plan and most important, of the recently launched African Continental Free Trade Area (AfCFTA), which is one of the flagship projects of Agenda 2063.*

*– African Union Concept Note, July 2018*

## 1.1 The Digital Commerce Landscape

Digital commerce is a broad-ranging phenomenon without an official definition. For example, the Organization for Economic Co-operation and Development (OECD) has described it as “the sale or purchase of goods or services, conducted over computer networks by methods designed for the purpose of receiving or placing of orders.”<sup>2</sup> The 1998 World Trade Organization (WTO) Ministerial Conference Declaration on E-commerce is similarly broad, defining it as “the production, distribution, marketing, sale, or delivery of goods and services by electronic means.”<sup>3</sup> At its most general, it refers to the digitization of commerce of all sorts -- goods and services as well as domestic and cross-border, as depicted in Figure 1.1 below. Unless in a title or publication, we choose to use the term digital commerce rather than e-commerce or digital trade, which have narrower connotations. In this section, we set out the landscape of digital commerce globally against the perspective in Africa.

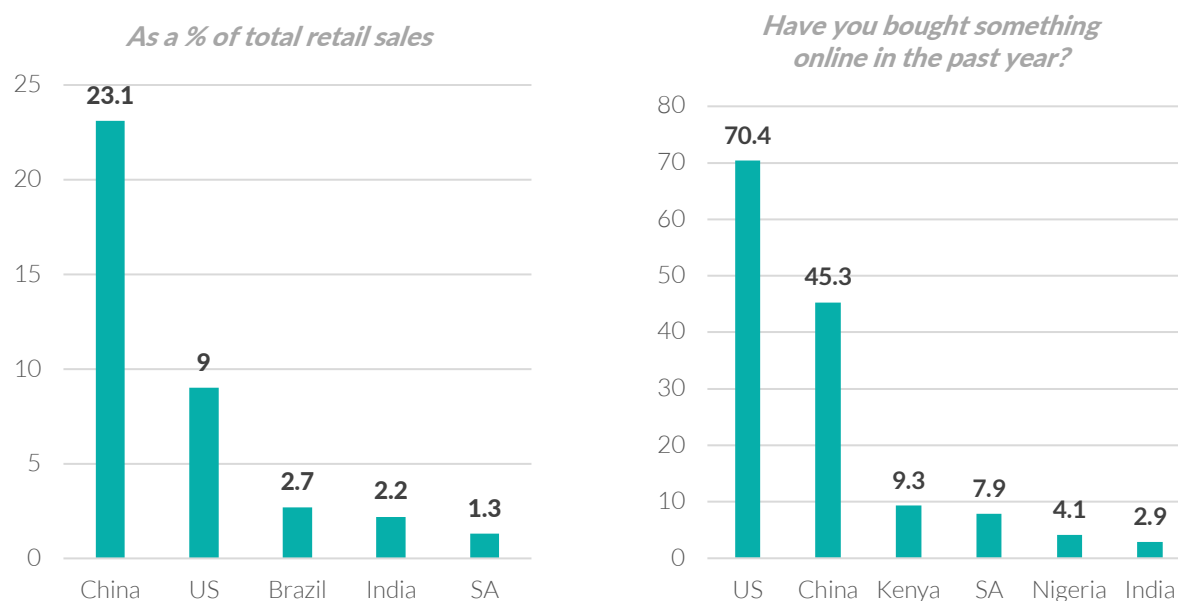
**Figure 1.1.** The Landscape of Digital Commerce



## 1.2. Consumer-facing Digital Commerce Offers Potential for Employment Growth

Digital commerce can be segmented in a number of ways, which we briefly explore in this section. The first dimension, defined by the nature of the buyers and sellers, comprises the distinct and widely used categories of business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C). B2B dominates digital commerce by value, although B2C is more accurately measured and tracked. The US Census Bureau estimates that digital commerce made up almost two-thirds of B2B and B2C sales in US manufacturing, using a broad definition of the electronic means by which these sales are made.<sup>4</sup> However, although the most pronounced effects to date may be in the manufacturing sector, it is the retail, or B2C, sector that is most visible to consumers and that is also the most measured. While there are no official estimates (and certainly not at a global level), a range of data and forecasting firms compile measures across markets and across time. Estimates by eMarketer, quoted by the International Trade Center (ITC),<sup>5</sup> show that B2C e-commerce has grown from 7.4 percent of global retail sales in 2015 to 10.2 percent in 2017, with a total value of US\$2.4 trillion. However, the proportion of e-commerce sales to total sales differs greatly by country, as shown in Figure 1.2. China leads B2C e-commerce with almost one-quarter of sales in 2017, while the US was at nine percent. The UN Conference on Trade and Development (UNCTAD) estimates that such sales make up one percent or less of retail sales in African countries, but as the World Bank’s Global Findex 2017 shows, the proportion of adults buying online is slightly higher than this. Even within the African continent, there are variations in the size of B2C digital commerce.

**Figure 1.2.** Country Variations in B2C Digital Commerce



Sources: eMarketer (2017), Disrupt Africa (2017), and Global Findex 2017

Another way of looking at digital commerce is to consider whether the goods being sold are physical or virtual, such as streamed or downloaded music and movies. This factor makes a huge difference where ease of delivery is concerned, since physical delivery involves logistical value chains to transport the goods from the warehouse to the customer. Worldwide, physical delivery has been undertaken largely by national post offices, although all digital commerce giants have increasingly built their own sophisticated logistics networks as an area of competitive advantage. In Africa, physical delivery poses a particular problem due to often ineffective post offices, lack of clear addressing systems, and the poor quality of road infrastructure.

The last dimension is the extent to which trade, whether in goods or services, is cross-border or domestic. There are no accurate measures of cross-border digital commerce, although UNCTAD has published data from the Universal Postal Union (UPU) showing how parcel volumes across postal systems have changed over time, which serves as a proxy indicator.<sup>6</sup>

In this paper, we focus on those digital commerce segments that seem most likely to generate youth employment. These are principally:

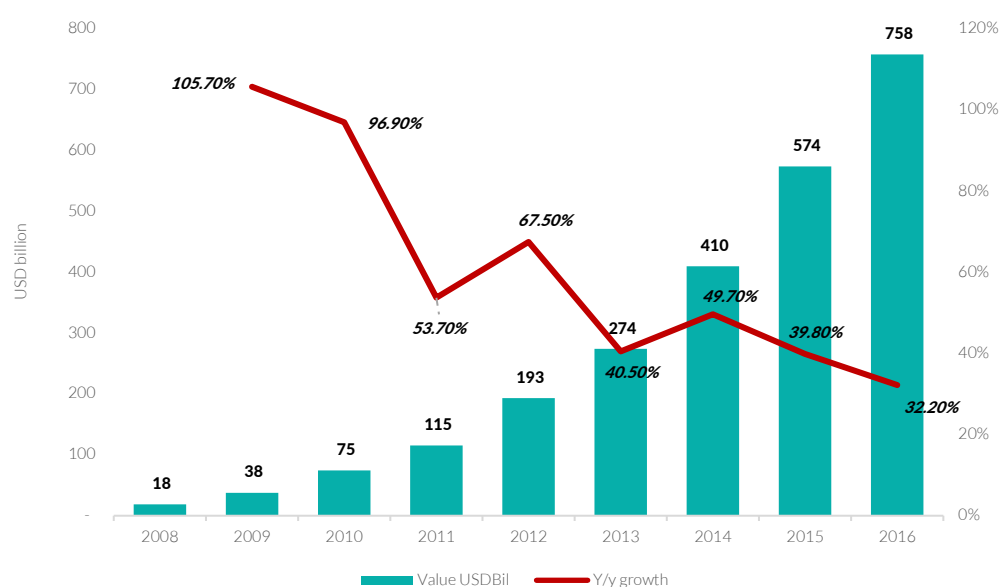
- Sales of physical goods, both domestically and cross-border. In Section 3 we explore further how platforms such as Alibaba, Amazon, and Jumia provide employment for millions of small vendors, logistics providers, and digital helpers.
- Gig platforms with workers who supply physical services such as ride-hailing drivers, domestic workers, etc.

While B2B and digital goods are important subcategories of digital commerce globally, if not yet in Africa, the link to widespread youth employment is not as strong.

## Case Study: Digital Commerce in China

In China, the value of digital commerce has risen rapidly, making it the world's largest B2C market (see Figure 1.3). Rapid economic growth and good infrastructure have fueled the growing volumes of digital commerce, although these factors may be a result as well as a cause of the growth of digital commerce. Moreover, in China digital commerce is closing the urban-rural digital divide, as evidenced by “Taobao” villages (enterprise zones) and rural Taobao strategies. Operated by the Alibaba Group, Taobao is the world's largest e-commerce platform for small merchants and buyers. Taobao villages, which contain a cluster of smaller manufacturers, have lowered the barriers to entry, enabling the emergence of micro, small, and medium enterprises (MSMEs) with fewer connections and less capital.<sup>7</sup> Intercity commerce has improved the welfare of smaller cities more than that of larger cities in China, reducing spatial inequality of goods distribution.<sup>8</sup> However, government-supported efforts to stimulate digital commerce in rural areas have mostly had a positive effect on rural consumption rather than employment.<sup>9</sup>

**Figure 1.3.** Growth of B2C Digital Commerce in China



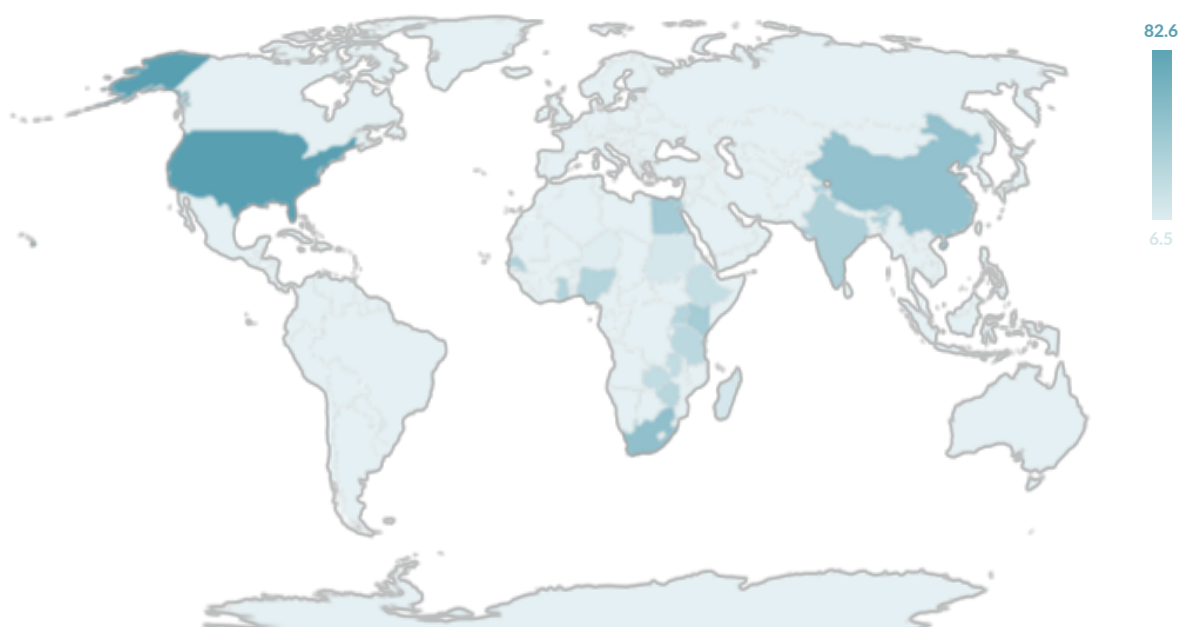
Source: Yue 2017 (UNIDO)

## 1.3. Digital Commerce in Africa

Jumia is the largest digital commerce retailer among the few large platforms in Africa. The Nigeria-based subsidiary of German internet holding company Rocket Internet is already active in 14 African countries. Jumia has seen rapid growth in gross merchandise value and volume of orders and customers in 2017, although it incurred an increased loss that year of US\$138 million. While Jumia itself has only 3,500 direct employees, it reports 50,000 MSMEs selling on its platform and has over 100,000 commission-based sales agents helping first-time customers navigate the site to make purchases.

Clearly, unlike in China, digital commerce in Africa is still nascent, and it would be interesting to see if China's story is a portent of what might happen in African countries. UNCTAD's E-commerce Readiness Index<sup>10</sup> is one measure of the current potential for digital commerce in Africa (Figure 1.4). It combines existing data on internet connections, secure servers, payment accounts and postal infrastructure to create a scale of readiness that ranges from zero to 100 percent. In general, of all the continents surveyed, the lowest-scoring countries are in Africa. Among the leading markets in Africa are South Africa, Kenya and Nigeria, which we have explored further. However, it is clear that there is a great diversity of starting positions across the African continent, so any discussion of policy measures will ultimately have to be grounded in the specific local context.

**Figure 1.4.** UNCTAD E-commerce Readiness Index for Selected Countries 2017



Source: UNCTAD 2017

Although digital commerce is at an early stage in Africa, its reach is already widening. Research by FIBR, a program of BFA with the support of the Mastercard Foundation, shows that African MSMEs are already moving online.<sup>11</sup> Micro-entrepreneurs perceive the online marketplace as something that far exceeds anything that would be available in the offline world, and they are already using social media platforms -- particularly WhatsApp, Facebook, and Instagram, which are not specifically designed for digital commerce -- to promote their services. Similarly, ordering on Chinese e-commerce platforms such as AliExpress is rapidly growing among customers and online sellers. The ubiquitous nature of mobile money in some countries in Africa has made remote transactions possible. Still, trust remains a major problem: the reputation of one platform does not extend to the next, and there are as yet no platforms with a pervasive reach. Our research also showed MSMEs relying on relatives to provide e-commerce-relevant skills such as photography, copywriting, and customer service, among others.



## Section 2 **Is Rising Digital Commerce Inevitable?**

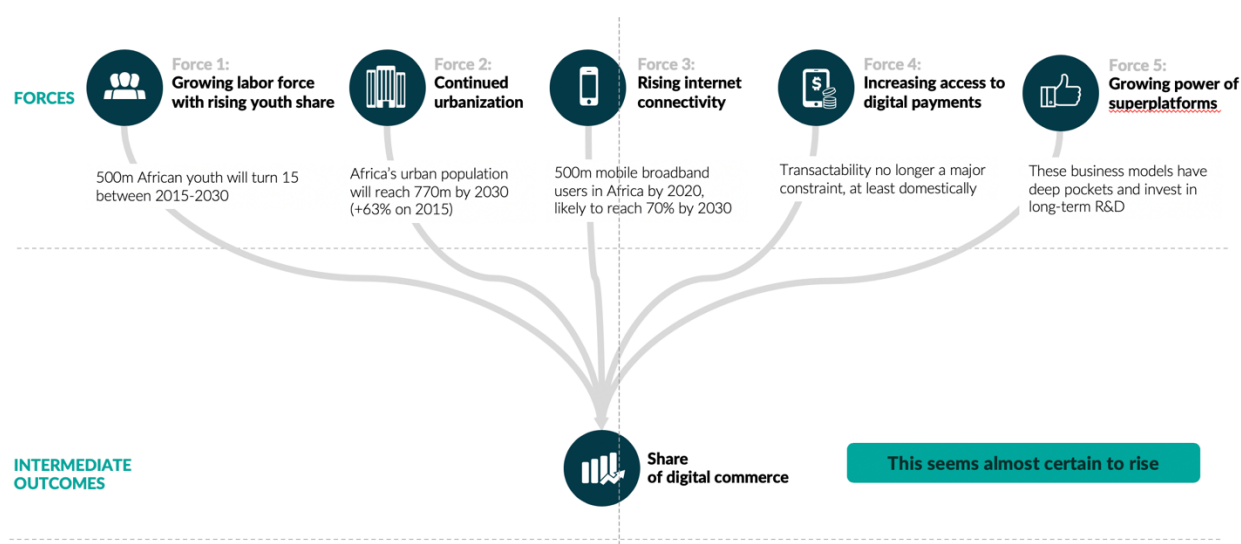
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*"How can we stop going faster while our ability to see further ahead is decreasing?"*  
– Peter Senge



This section isolates the forces and uncertainties that will shape the landscape in which digital commerce will develop in Africa as we move toward 2030. Forces are not trends, but rather the most powerful and most certain dynamics shaping the landscape that are likely to appear under almost any scenario. Figure 2.1 summarizes the five main forces we have identified and their linkages through labor demand or supply to labor market outcomes. Given the focus of this work on digital commerce, we do not concentrate here on the influences on the supply side -- the growing proportion of youth who are likely to be better educated than previous labor market entrants because of online education is not in question here. Instead, we focus on the scope of effective demand for labor, which would absorb that growing supply.

**Figure 2.1.** Forces Shaping the Outcome of Digital Commerce in Africa



### Force 1 Growing Labor Force with Rising Youth Share

The most recent projections from the International Labor Organization (ILO) show the total labor force in sub-Saharan Africa rising from 417 million in 2018 to over 460 million by 2022.<sup>12</sup> Projecting these trends to 2030 using a labor force participation rate similar to the UN medium population estimate causes the total number to rise to 600 million, meaning that nearly 200 million young people will be added to the labor force in the next 12 years. This is the almost unstoppable force of African demographics: large numbers seeking employment, with a rising youth share, faced with mainly low-quality informal-sector jobs.

### Force 2 Continued Urbanization

Projections from the UN Department of Economic and Social Affairs (UNDESA) show that urbanization in Africa, and the world in general, continues as a slow but inexorable process, in Africa's

case reaching half of the total population around 2030. This means that Africa's urban population will reach 770 million, an increase of 63 percent over 2015.<sup>13</sup> This force has material implications for economic activity. The growing concentration in cities makes digital technology more accessible for those living there, and it makes the logistics of delivery far easier than for rural areas. It also means that the labor forces in the cities expand at a disproportionately rapid rate, while labor market density makes it more likely that employment solutions can be found there.

### **Force 3 Rising Internet Connectivity**

GSMA estimates that there will be 500 million mobile internet users in Africa by 2020<sup>14</sup> and that 70 percent of mobile subscriptions will be internet-connected by 2030, implying that a majority of Africans will be connected to the internet via smartphone by 2030. This proportion is also skewed toward the young: Pew Research data show that African youths are 13-30 percent more likely to have smartphones than older groups. This has clear implications for digital commerce; they can now search and transact directly online through the convenience of smartphone apps.<sup>15</sup>

### **Force 4 Increasing Access to and Use of Digital Payments**

Transactability is no longer a major constraint, at least domestically, as access to financial accounts continues to increase. Findex numbers show not only that headline formal account ownership is increasing (both globally and in sub-Saharan Africa), but that the proportion of adults who have made or received a digital payment in the past year has risen to 43 percent globally, and to 34 percent in Africa.<sup>16</sup> The proportion of adults who report buying online is still generally well below this level, however, except in China, where it already exceeds 40 percent. The capability to pay digitally is vital as it fuels digital commerce; without it, transactions would require cash on delivery, which, while still common in Africa, carries inherently higher transaction costs and risks for both parties.

### **Force 5 Growing Power of Superplatforms**

The growth of “superplatforms”, those digital giant companies which orchestrate multiple platform-based ecosystems, is fueled by their large size,<sup>17</sup> their knowhow and their financial capacity to invest in long-term research and development and pursue acquisitions. These ecosystems allow the superplatforms at the center to harvest usable data to design new services and harness powerful network effects, which entrench the reach of their existing services. Domestic platforms, which have become popular especially among African merchants, have all made significant investments in local infrastructure, logistics, regulation, and training, which could be a bulwark against competition from purely digital platforms.

## **Putting the Forces Together**

The combination of these powerful forces will result in an increase in the share of digital commerce of total sales under almost any scenario. However, the speed of the evolution is still unclear. We have identified four key uncertainties that will affect digital commerce, and therefore the outcome, by 2030. Below, we define the uncertainties and cluster them to create possible different worlds in which African policymakers will have to reach decisions.

## Uncertainty 1 Will Global Trade and Tax Regimes Cohere?

The answer to this question rests on the resolution of at least three main sets of complex and multifaceted issues:

- Whether the international trade environment accelerates digital commerce at the global level (World Trade Organization; WTO). The African Ministerial Group has dissented to<sup>18</sup> a proposal to establish a formal working group to further enable cross-border digital commerce, but the countries that are part of the Friends of E-commerce for Development<sup>19</sup> are nonetheless pushing ahead.
- Whether the emerging international tax agreements, as determined by treaties and emerging multilateral frameworks, such as the OECD/G20 Base Erosion and Profit Shifting (BEPS) Project, act as an enabling factor for digital commerce. This initiative is gaining signatories in Africa (Nigeria, Egypt, South Africa) but it remains very complex to enforce.
- Whether the international postal agreement reached under the auspices of the Universal Postal Union (UPU), a UN agency, evolves to a new version that accelerates cross-border digital commerce. The US has signaled its willingness to pull out of the UPU in 2019 if the terms of the agreement are not revised.

The outlook for greater global coherence may not seem bleak in early 2019; however, it may change, and we do not need to bet on whether it happens or not. To be prepared, we merely need to understand the implications either way. If the international framework for a digital regime coheres, it will result in positive outcomes for cross-border trade for developing countries. In addition, it may create an enabling environment that allows the harmonization of national policy as well, adhering to international norms. If coherence does not occur, bilateral and regional agreements may prevail, limiting cross-border trade.

## Uncertainty 2 Will Regional-level Digital Commerce Strategies Cohere?

In 2018 most members of the African Union (AU) reached agreement to create the African Continental Free Trade Agreement (AfCFTA), which would remove all barriers to trade among members over time. Digital commerce was not part of the framework agreement, but the AU is now discussing how to place digital commerce on the AfCFTA roadmap.<sup>20</sup> Some of the biggest concerns about cross-border digital commerce come from taxation authorities concerned about the effects on customs duties, sales, and income taxes. Some of these concerns are specific to digital commerce; for example, the fluid nature of supply chains enabled by digital commerce creates opportunities to arbitrage state and local sales taxes through the strategic location of an entity's tax "presence" to jurisdictions without taxes, giving online sellers a cost advantage over physical merchants who have to levy these taxes on transactions. However, divisions at the WTO level may also slow progress made within the AU. Note that even if no progress is made at the continental level, digital commerce approaches could still become more coherent at a regional level of, say, the East African Community or the Southern African Development Community.

Cross-border trade in Africa will benefit from greater coherence on a regional basis, which removes barriers to trade, whereas a continuation of the status quo, in which Africa's trade is a patchwork based on resources, would result in incoherence. Cross-border trade will empower Africa to emerge as a suitably large trading block with more traction in negotiations with superplatforms. With the prolongation of the status quo, digital commerce with China might grow at a faster pace.

### **Uncertainty 3 Will the National Policy Environment for Digital Commerce Cohere?**

Digital commerce policy requires coordination among a number of ministries within a country, not merely a push from one, since it cuts across many conventional domains of policy: from taxation to trade, from labor to justice, even from social welfare to security. Greater coordination at a national level might lead to a national strategy or roadmap, if not a comprehensive policy, to sequence and address the various digital commerce-related issues.

In Africa, only Egypt has so far developed a national e-commerce strategy, and there are few or no mentions of digital commerce in individual countries' national development plans. Worldwide, little evidence of comprehensive national strategies exists outside of Asian countries, such as China and Malaysia, where some of the outcomes of these strategies have also stirred controversy. China's multifaceted e-commerce law took some four years to pass in 2018. Additionally, these strategies and laws have usually followed, rather than led, the development of domestic digital commerce activities.

If national coherence does occur, complex issues related to micro-businesses and gig workers could be addressed, although it is also possible to have comprehensive but inhibiting policies that actually reduce e-commerce growth. In the absence of coherence, some ministries may make efforts to enable digital commerce, but with limited effectiveness and potentially negative outcomes.

### **Uncertainty 4 Will Worker Organization Reshape the Political Landscape for Digital Commerce?**

Resistance to the changes catalyzed by digital commerce has emerged in various forms; for example, there have been widespread public protests directed at Uber and Taxify, as well as legal action in many markets. Resistance may also manifest itself in the formation of new digital workers' associations, which are beginning to emerge despite the difficulties in coordinating decentralized workers who lack a common workplace in which to meet. Workers may also be more likely to mobilize in countries with strong trade unions, such as South Africa, to confront the perceived threat to their own jobs from digital commerce.

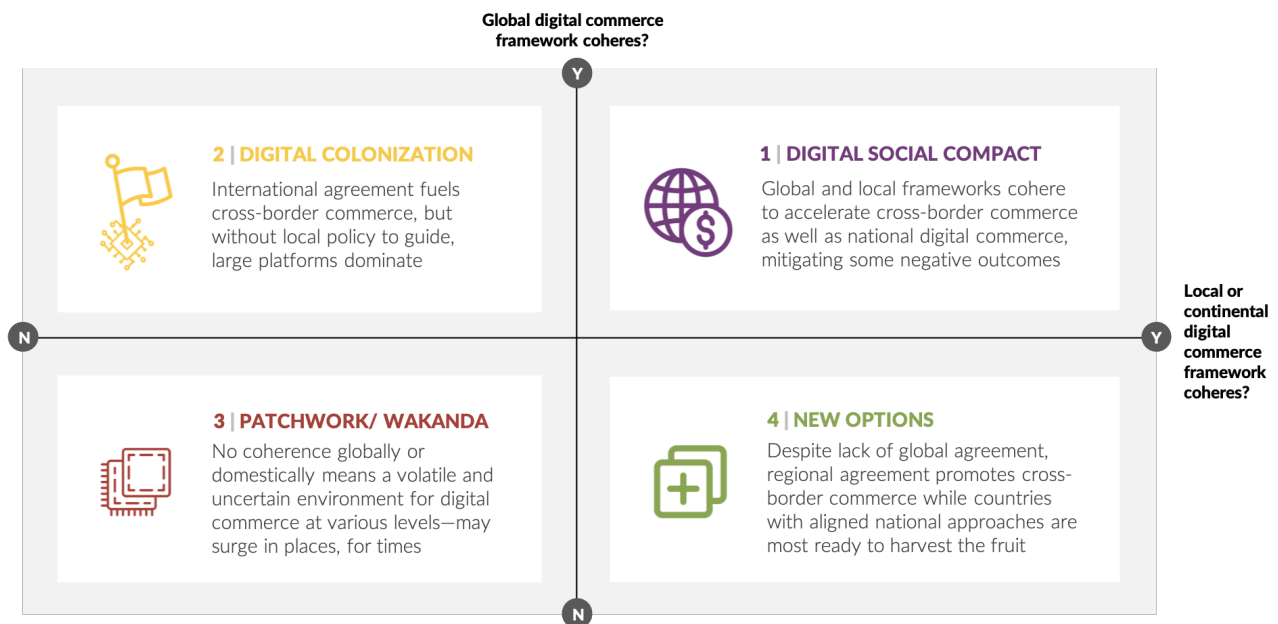
While protests are already widespread in Africa in certain sectors, there is little evidence that they have as yet been effective. Even so, labor laws might be challenged in South Africa, for example, where the legal boundary between employees and contractors is already as complex and contentious as in the US and Europe.

The uncertainty here is not whether there will be ongoing protests against change -- that seems most likely -- but how prolonged or concerted protests may affect the political climate to make changes. It could cut two ways, either blocking any path to reaching consensus or casting a spotlight on the issue, thereby energizing governments to step in to create a coherent policy (resolving Uncertainty 3 above). Without any galvanizing force, African countries may "muddle through" in terms of policy towards digital commerce, especially if there is no clear digital commerce champion within government.

## Potential Scenarios

The uncertainties above are largely outside the control of individual African policymakers -- even forging a national strategy may require top-level intervention. Together, they shape different possible “worlds” in which African policymakers will find themselves having to make decisions for their own contexts (Figure 2.2). We focus below on overlaying possible outcomes to the first two uncertainties to create four distinct worlds. We set aside the third and fourth uncertainties, but the influence of these factors may bifurcate in different places to reinforce the scenarios shown here.

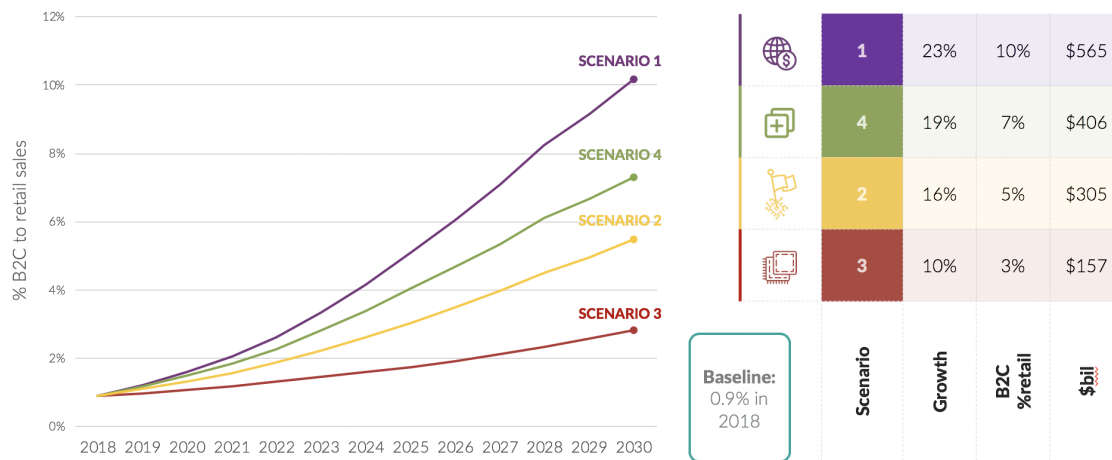
**Figure 2.2.** Four Scenarios for Digital Commerce



While it is almost certain that digital commerce will grow in Africa, the speed and nature of growth is a function of three factors: the initial conditions for digital commerce, the different worlds that result from the choices of others, and the choices made by policymakers.

Using historical assumptions about the patterns of annual growth in e-commerce from other nations, Figure 2.2 charts the different possible trajectories from an assumed baseline in 2018 close to the current African reality in each of the scenarios. The Patchwork scenario (Number 3) is the default scenario, while the others all offer some upside. In the best case of the “new digital social compact” in the upper right-hand box above, growth accelerates to reach the levels experienced by China over the past 10 years before slowing, as we have seen earlier. The variation in average annual growth of B2C digital commerce across the scenarios is from 10 percent a year in the slowest to 23 percent in the fastest, which is close to the Chinese average of the past decade. Figure 2.3 below shows different possible outcomes of these growth trajectories for African digital commerce, from trebling as a proportion of retail sales by 2030 (with a value of US\$157 billion, a significant figure) to multiplying by a factor of more than 10 and a value of over half a trillion US dollars.

**Figure 2.3.** Implications of Scenarios for Digital Commerce



These scenarios consider the effects of different worlds on the growth of digital commerce. To understand the possible effects of this growth on employment in Africa, we need first to consider what we know of the channels of impact.

### A Wildcard Scenario: A National Digital Commerce Monopoly?

A localized monopoly could emerge in a country with nascent e-commerce that desires to break with other countries and cut a monopoly deal for, say, 10 years to accelerate digital commerce in that country. The deal could be in the form of a joint venture with a major international superplatform, where the country invests in logistics infrastructure, while the platform brings its brand, know-how, and management capability to the local market. Furthermore, the platform undertakes to promote defined categories for local small businesses in the international market.

In this world, the management of digital commerce evolves into a kind of new national utility function, in which there is less fragmentation of investment in logistics. There is also a focus on trust-building infrastructure, which in turn leads to faster consumer adoption and even better tax collection from sellers and access to tax incentives for local businesses, which are administered via the platform. This might happen in a country with nascent digital commerce that has little to lose by allowing a monopoly, given that major platforms seem willing to do country-specific deals (e.g., Malaysia's digital free-trade zone signed with Alibaba in 2017).<sup>21</sup> The recent deal agreed between the government of Rwanda and the Alibaba Group,<sup>22</sup> while neither exclusive nor a monopoly, clearly signals a choice to work closely with one major superplatform to accelerate local benefits.





## Section 3 **How Does Digital Commerce Affect Employment?**

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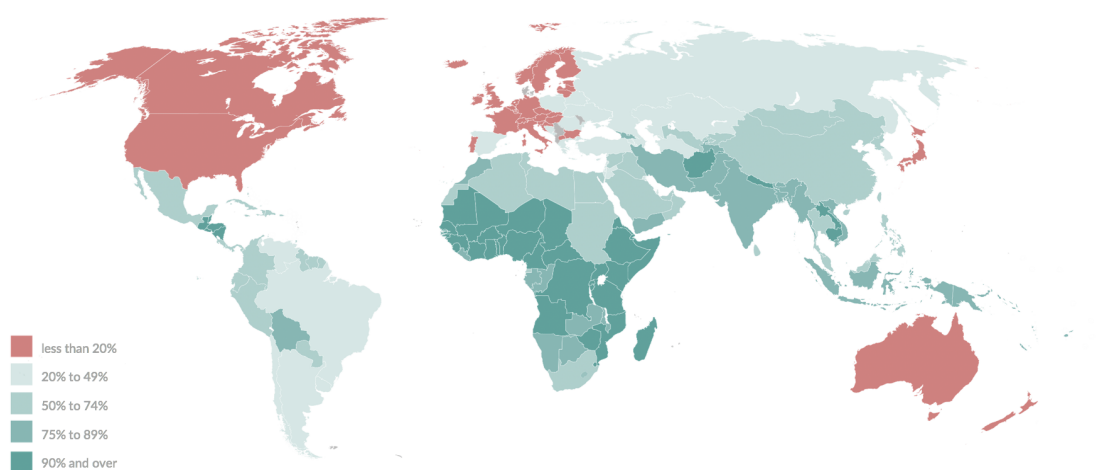
*“All these trends point to the devolution of large, permanent corporations into flexible, temporary networks of individuals. No one can yet say exactly how important or widespread this new form of business organization will become, but judging from current signs, it is not inconceivable that it could define work in the twenty-first century as the industrial organization defined it in the twentieth. If it does, business and society will be changed forever.”*

– Malone and Laubacher

There is little debate over whether the growing share of digital commerce will increase consumption; it may also stimulate demand for labor and produce new employment opportunities. More uncertain, however, is whether these new opportunities displace others, and just what the quality will be of these new work opportunities. Will they constitute “good” work? There are a number of definitions of good work. For example, the Mastercard Foundation defines good work as “dignified and fulfilling”. The Indian Economic Survey defines good jobs as safe, productive, and well-paying, while the ILO uses 10 indicators that include earnings and productivity in its definition. In this section we ask whether we can expect digital commerce to create new work opportunities, and if so, whether that work is indeed good work.

In the area of employment, most of Africa starts from a very different position from say, the US or China, where digital commerce has thrived so far. This is because 86 percent of employment across Africa is found in the informal sector (Figure 3.1), which is also a key source of value added in the overall economy. One ILO overview of studies estimates that the informal sector contributes 36-60 percent of gross value added across African countries.<sup>23</sup> Therefore, policies about digital commerce and employment need to account for and build upon the realities of the informal economy. In this sense, the “Fourth Industrial Revolution” will unfold differently in Africa, offering some opportunities for leapfrogging, but also limitations and constraints related to generally lower productivity in the informal sector. Many kinds of policies can combine to encourage pervasive informality and low productivity, as economist Santiago Levy suggests has been the case in Mexico, despite sound macroeconomic policies and political stability there over several decades.<sup>24</sup>

**Figure 3.1.** Share of Informal Employment in Total Employment



Source: ILO 2018

The discussion of how new technology in general (of which digital commerce is a manifestation) affects the nature of work is subject to a range of views. In the West, for example, there is growing concern about “robots eating jobs.” Conversely, in China there is much greater optimism that a tech-based growth approach can stimulate employment. Looking across this burgeoning literature, in this section we document evidence of at least three channels of how digital commerce affects employment: directly, through the growth of digital commerce workforces, especially in logistics and infrastructure development; and indirectly, through enabling the entry of new MSMEs, and by changing the nature of work itself through the spread of labor-contracting platforms.

## **Channel 1 Directly Through the Growth of Digital Commerce Platforms and their Logistics Chains**

In recent years the world's digital commerce giants have grown their own employee numbers substantially through natural growth, takeovers, and sometimes as a response to regulatory requirements. Alibaba's total direct workforce has more than tripled since 2013 to reach 66,421 in 2018.<sup>25</sup> Amazon's direct workforce has expanded more than thirtyfold over the past 10 years, making it the second-largest private employer in the US in 2018, with 566,000 workers.<sup>26</sup>

The direct effect is not limited to the platforms themselves; they have catalyzed growth in the fulfillment and logistics sectors. Mandel (2017) has gone so far as to argue that the growth of jobs in fulfillment centers exceeds the loss of brick-and-mortar retail jobs; he argues that the time which people would previously have spent to shop for themselves is essentially "monetized" via fulfillment and delivery charges, whether paid by the seller or the buyer.<sup>27</sup> Data from the US Bureau of Labor Statistics show that the number of employees in the transportation and warehousing sector has grown by 700,000, or 15 percent, over the past 10 years. However, even these numbers are small relative to the labor force of each country and, to date, there are very few platforms elsewhere that approach the size or influence of these two.

Clearly it would be relevant to measure the net total labor market effect of major e-commerce players, and in 2018 Amazon and Alibaba each issued reports that claimed substantial additional job creation effects through sellers on their platforms. However, the methodologies differ in their levels of disclosure and robustness, making it hard to draw any definitive conclusions from these studies alone.<sup>28</sup>

## **Channel 2 Indirectly Through Innovation and MSMEs Entry**

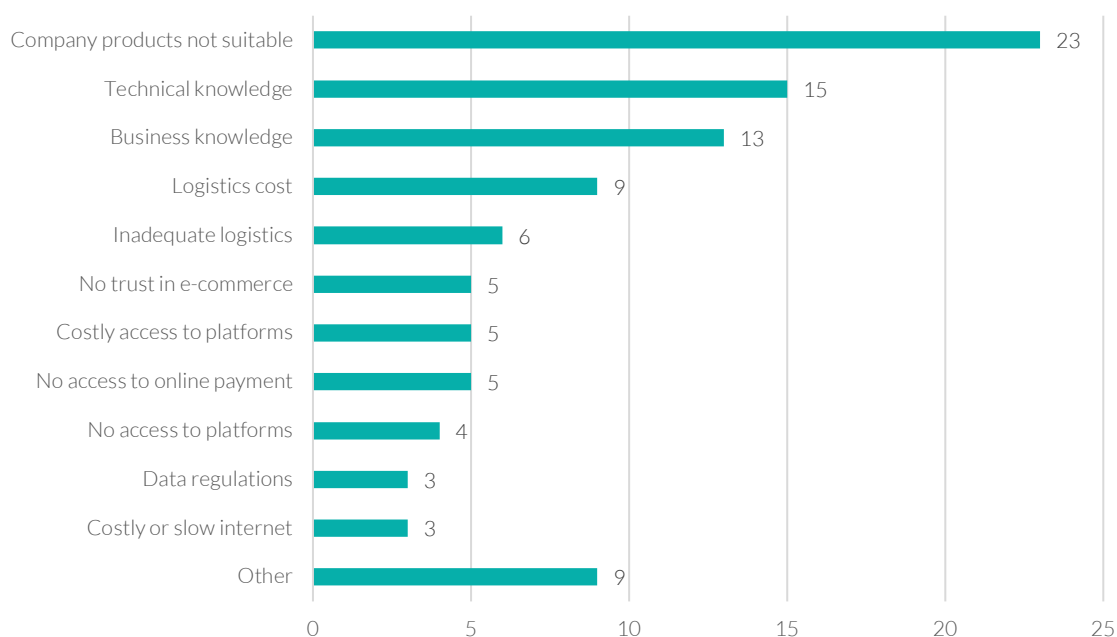
By far the majority of sellers on Amazon Marketplace or Alibaba's Taobao platform in China are small or micro businesses. Seventy-three percent of sellers on Amazon Marketplace had five or fewer employees in 2017.<sup>29</sup> Taobao is associated with millions of small businesses that have emerged naturally in clusters focused in particular areas called Taobao villages or towns. The high-profile growth of Taobao villages as competitive export zones has usually been the main case cited as proof of the positive developmental effects of digital commerce.

Independent research in China has confirmed that this channel does work in practice. Peking University researchers Dai and Zhang, in a 2015 study, compared the characteristics of online firms (i.e., participating in digital commerce) versus offline firms in a county with Taobao villages. The study found that the owners of the digital firms were more likely to be from other locations and also to be younger. Importantly, they also found that these firms carried very little working capital compared with traditional firms thanks to the quick settlement enabled by platforms. The need to finance working capital is in itself a barrier to entry, and securing access to financing requires local networks that may impede entrepreneurship. The authors concluded that one of the main dynamic effects of digital commerce is to make it easier for new firms to enter and participate in the economy. Of course, that is not the same as saying that new firms will necessarily survive or thrive, but greater dynamism in an economy is likely to benefit entrepreneurs, and youth in particular.

While the evidence from China shows that digitally driven MSME formation and growth probably have some influence on aggregate employment, it is not evident that this effect will develop or sustain itself automatically. For one thing, there are obvious barriers to many MSMEs accessing digital commerce

in the first place. Figure 3.2 shows the responses from a large cross-country survey of 2,200 MSMEs across 111 countries undertaken by the International Trade Centre (ITC) in 2017, asking why they were not active in e-commerce. After product suitability for online sales, answers citing a lack of business and technical knowledge featured prominently, followed by logistics barriers (15 percent) and the cost or lack of access to e-commerce or payment platforms.

**Figure 3.2.** Bottlenecks Preventing MSME Engagement in Digital Commerce



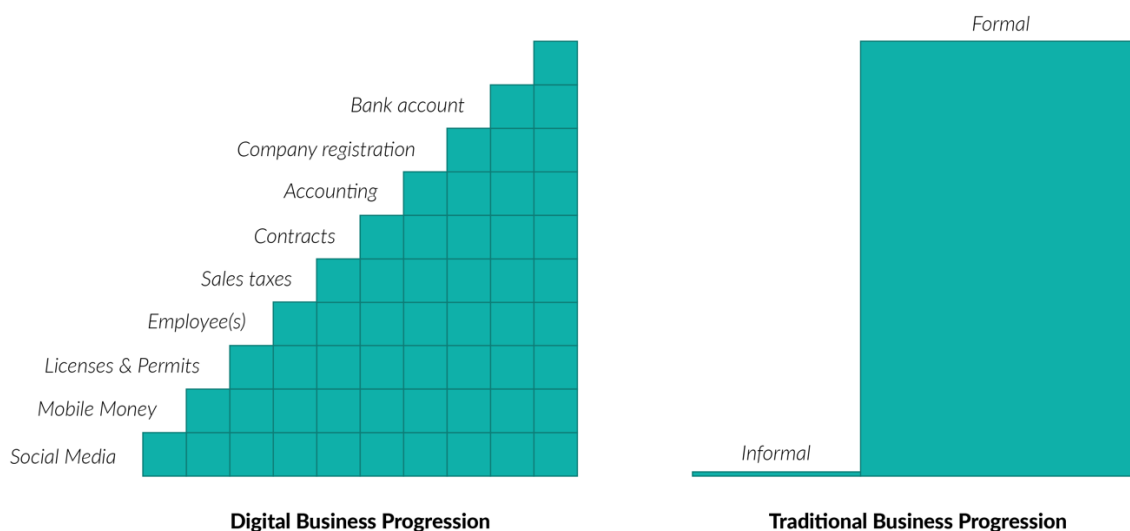
Source: ITC (2017)

Disrupt Africa's 2017 survey<sup>30</sup> focused on African e-commerce startups that were already in the market. Nearly half reported the major barriers to their growth as being consumer education and trust (49 percent), followed by lack of funding (33 percent), a perennial MSME complaint in Africa and elsewhere,<sup>31</sup> and then payment and logistics barriers to transacting (27 percent). Clearly for MSMEs to enter, survive, and thrive in e-commerce requires a local trust environment in which customers are willing and able to transact more. Today, GSMA has estimated that as much as 85 percent of e-commerce transactions in Africa are "payment on delivery," a sign of a low-trust environment in which the buyer will only part with payment on evidence of delivery.<sup>32</sup> This clearly adds to costs and risks for buyers and sellers, apart from making it hard for the platform to take its fee.

In Africa's largely informal economy, digital platforms offer opportunities to overcome some of the barriers to MSME growth. Mutual rating systems have proven to be powerful contributors to trust between buyers and sellers, and almost all platforms provide for them; however, ratings cannot be carried from one platform to another and do not exist at all for sellers who use superplatforms such as Facebook and Instagram to promote their business. While trust is important for the growth of the market overall, digital platforms also offer small, informal enterprises a progressive route to

formalization (see Figure 3.4). Individuals can start to offer services online and only take on formal advantages and obligations as they grow.

**Figure 3.4.** Progressive Formalization vs the Formal Precipice



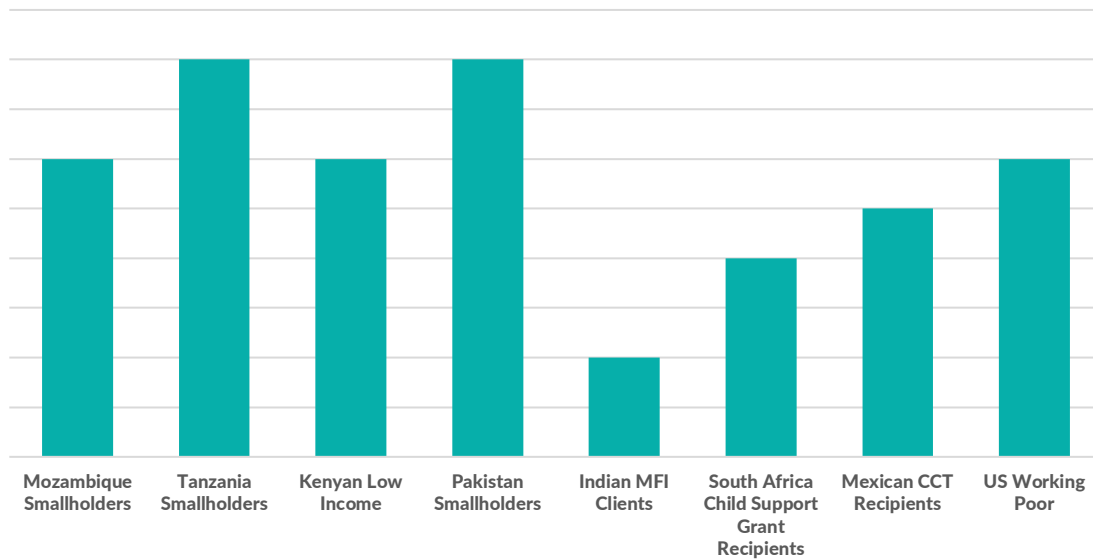
Source: Ng'weno and Porteous (2018)<sup>33</sup>

### Channel 3 The Changing Nature of Work

According to New York University Professor Arun Sundarajan, the rise of the so-called “sharing economy” run by digital platforms deeply challenges the very notion of formal jobs that are, he argues, an aberration on the long-term landscape of employment.<sup>34</sup> The proportions of employees and self-employed in the US workforce at the turn of the twentieth century were closely matched (55 percent against 45 percent). By 1960 the share of those employed had risen to 85 percent of the workforce, which had become the norm for developed countries but was also still the yardstick for developing countries to aspire to. However, changes underway now mean that the modern notion of a formal job with a package of social benefits and rights defined in law and social contract in industrialized countries may one day be viewed as an exception to the longer-term reality of labor being supplied in a much more decentralized manner. That was the case throughout the nineteenth century and remains the case in Africa today.

As well as being predominantly informal workers, many in Africa already weave together a livelihood from a variety of income sources, rather than having a single employer. BFA’s Financial Diaries studies around the world have shown that this is generally the case for low-income households, even in the US, as shown in Figure 3.5.

**Figure 3.5.** Median Number of Sources of Income per Household in a Year  
(not including transfers from the social network)



Source: BFA<sup>35</sup>

In developed countries, the growth in the number of “gig workers” has posed a challenge to labor regulators. These workers re-contract on an ongoing basis for short-term work via one or more digital platforms, thereby falling into a “no man’s land” in terms of vulnerability. While they may theoretically have the flexibility to work as much or as little as they wish, in practice these workers may see their wages diminished through competition and platform policies. Additionally, available work hours may be limited, and these workers must adhere to standards created by the platform. As contractors, they may be prohibited from organizing into unions to press for better conditions. On the employer side, even if they wished to provide certain benefits or training, they may be constrained by the risk that the relationship could be deemed to be formal employment and therefore subject to various penalties and withholdings as a result. Several influential studies have called for this category of worker to be recognized separately in labor and tax law; in the US, they are called “independent workers”,<sup>36</sup> and in the UK, “dependent contractors”.<sup>37</sup>

One of the commonly expressed concerns about the gig economy is that it displaces current jobs, as it brings cheaper, more flexible labor to the market. In Africa, where most current jobs are informal jobs with few protections anyway, this has given rise to the concern that the new gig jobs will never match the manufacturing jobs that led Asia’s growth out of poverty.<sup>38</sup> Indeed, this concern seems to have a basis in settings where e-commerce workers represent a large, low-skilled workforce with low barriers to entry. Each gig worker or MSME is exposed to international competition, with platform efficiencies driving prices for consumers even lower. Workers could be stuck in low-wage drudgery with none of the protections or benefits of formal employment, much less the higher-wage trajectory of manufacturing.

Although no major study exists as yet in Africa to show whether these forms of digital commerce displace existing workers and/or depress wages for existing workers, research into the growth of transportation platform Uber -- one of the largest gig economy platforms globally -- across US cities suggests that these concerns may not be warranted. Berger, Chen, and Frey (2018) found that Uber’s



expansion had no negative impact on the number of employed taxi drivers.<sup>39</sup> However, the introduction of Uber to US cities reduced the earnings of incumbent drivers, while increasing those of self-employed drivers.

To be sure, many of the challenges related to self-employed contractors are longstanding; however, the digital gig economy has exacerbated them through its scale and reach. The current scale of this group of workers is in fact somewhat uncertain. McKinsey<sup>40</sup> used a broad definition, including part-time and casual labor, in a survey of developed-country workers to estimate that self-employed contractors constituted 15-30 percent of the workforce. By a narrower definition, a 2018 US Bureau of Labor Statistics report indicated that about seven percent of Americans were independent contractors, a figure that was down slightly from the previous survey in 2005.<sup>41</sup>

The size of the gig economy (narrowly defined) in sub-Saharan Africa is likely to be very small at present.<sup>42</sup> Labor force surveys in most African countries are not yet sufficiently sensitive or accurate to discern the finer distinctions of types of digital contractors. However, as noted earlier, the wider gig economy already in effect includes half of all workers in the informal economy in Africa, according to the ILO (2018);<sup>43</sup> this is by far the largest segment of the labor market identified, with almost 170 million workers out of the total sub-Saharan labor force of 417 million. Today, this group falls entirely into the informal column in Figure 3.6 below. However, to capture the potential of a subset of this larger group to formalize progressively using digital tools, we introduce the term “iWorkers.” This refers to that group of future workers who are on the cusp of formalized work since they will have the tools -- specifically, a smartphone linked to an account -- which they use to buy goods online, but which could also be the basis of transforming their relationship with their employers.

**Figure 3.6.** Distinguishing Types of Worker

	UK workers/ “dependent contractors” US “Independent worker”			The African iWorker	
	Employee	Formal Contractor		iWorker	Informal
<b>A. Labor law</b>					
Enforceable contract	Y	Y	Y	Y	N
Ability to organize	Y	Y	N	Y	N
Makes own hours	N	Y	Y	Y	N
Receives prescribed benefits	Y	?	N	Y	N
Employer can fund training	Y	Y	N	Y	N
Registered for social security	Y	Y	Y	Y	N
<b>B. Tax law</b>					
PAYE deducted at source	Y	?	N	Y	N
<b>C. Business model</b>					
Multiple sources of income	N	N	Y	Varies	Varies
Paid by output not input	N	Y	Y	Varies	Varies

## Revisiting the Scenarios

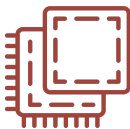
With this perspective on how digital commerce may shape employment opportunities, we can revisit the scenarios developed in the previous section to introduce some implications for employment.



In the first potential world of the “**Digital Social Compact**”, in which the growth and value of cross-border and domestic digital commerce increases at the fastest rate, employment opportunities will most likely increase as well. As a result of coherence, African policymakers enact national policies that recognize and promote the African iWorker concept and ensure progressive benefits and protections in legislation that provide iWorkers with dignified, productive livelihoods.



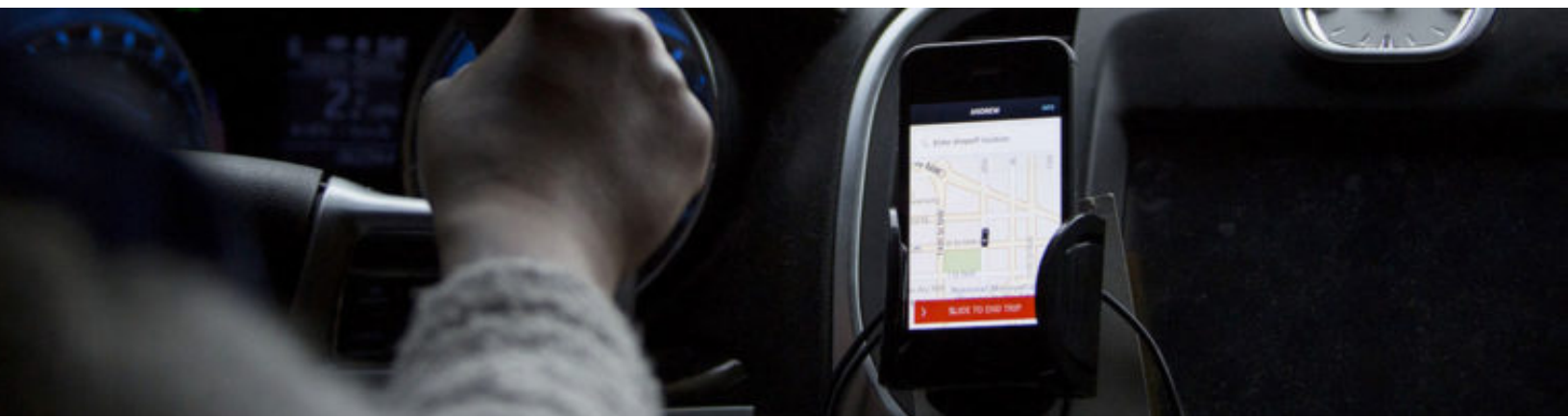
However, in the “**Digital Colonization**” world, large foreign-owned or managed platforms dominate in the absence of any coherent local policy. In this world, employment opportunities may increase but profits and taxes are still retained abroad. Fierce worldwide competition keeps prices and wages low. Superplatforms may become so powerful that they erode both the tax base and the very authority of government, even as domestic and worldwide worker activism, coordinated on social media, becomes more common.



The “**Patchwork/Wakanda**” world is one in which governments muddle along in the area of labor law too. Achievements in specific economic sectors may lead to more and better jobs, which may be undermined by changes in the local or international environment. This world is also called “Wakanda” after the legendary African kingdom of movie fame because of the possibility that in this world there may be locally successful trajectories “below the radar” of international trends. Overall, employment in African countries is likely to fall behind, potentially with associated protests and worker unrest.



In the “**New Options**” world, coherence at the regional level allows larger markets for digital commerce while protecting workers and domestic industries from extreme global competition. In this world, both the quality and the quantity of digital commerce employment increase, with a substantial domestic provision of manufacturing and generally positive quality of work. However, regional protection may limit the benefits to consumers from low international prices and may also lead to slower overall growth than in some other worlds.





## Section 4 **What Are the Options for African Policymakers?**

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*"Societies that get stuck embody belief systems and institutions that fail to confront and solve new problems of societal complexity."*

*-Douglass North*

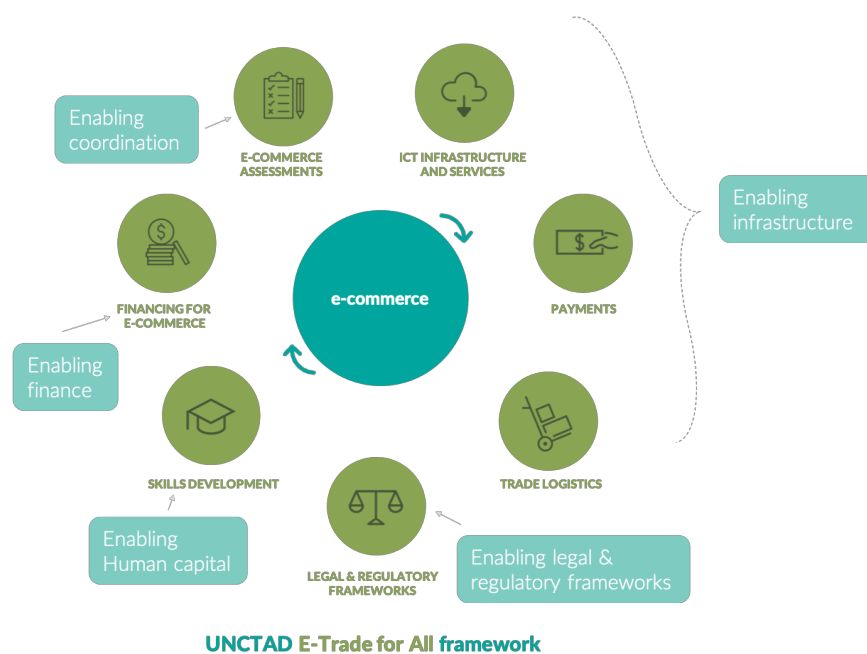
Section 3 outlined some scenarios or worlds within which African policymakers will have to make policy choices over the next decade or so. In this section we survey the policy tools in the conventional toolboxes of policymakers, first for promoting digital commerce and then for active labor market policy. We then consider how robust they are across the different scenarios.

## Policy Lever 1 To Promote Digital Commerce

Digital commerce has only recently figured on the international sustainable development and trade agenda. The UN Conference on Trade and Development (UNCTAD) has promoted digital commerce as a means of sustainable development since producing a landmark report on the topic in 2015.<sup>44</sup> The report drew attention to the examples then emerging out of China, such as rural Taobao strategies, on how to close the urban-rural digital divide using digital commerce as a driver, and how digital commerce could enable MSMEs to become internationally competitive, citing the example of the Taobao village model.

UNCTAD has consolidated a range of basic policy prescriptions enabling digital commerce into a framework with seven pillars. Each of these pillars, shown in Figure 4.1, addresses a barrier to national e-commerce development. Most of the pillars refer to outline areas that may have been government objectives under other policies; for example, the rollout of information and communications technology (ICT) infrastructure is a goal in most countries that predates any express purpose of promoting digital commerce. Similarly, promoting digital skills, improving the online legal and regulatory environment, or promoting digital payments have been elements in many financial inclusion strategies. However, the key challenge in most African countries appears to be coordination among the various departments with potential oversight of digital commerce.

**Figure 4.1.** UNCTAD Pillars for Enabling Digital Commerce



Source: UNCTAD 2017 Figure 7.6

UNCTAD proposes that countries should undertake e-commerce assessments to overcome this risk of policy coordination failure and has developed a tool called the Rapid E-Trade Readiness Assessment, which aims to identify barriers to digital commerce development.<sup>45</sup> In 2018 Liberia was among the first African countries to conduct such an assessment, reviewing each of the seven UNCTAD pillars for sustainable e-commerce. The conclusion of this assessment was that “e-commerce is increasingly viewed among both Liberian policymakers and the private sector as a potentially important driver of economic and socioeconomic growth. The environment is ripe but requires multidimensional support.”<sup>46</sup>

The report resulting from a readiness assessment is intended as a resource for further national and international discussions on this topic. It may also be used as a basis to coordinate and focus government policy in the form of a national e-commerce strategy. Egypt was the first African country to publish its national e-commerce strategy in 2017.<sup>47</sup>

Some countries have gone beyond new strategies or even sector-specific laws to create new legal frameworks. We have already noted how China promulgated a comprehensive e-commerce law in 2018 after some years of deliberation. However, despite creating a legally binding framework, not all digital commerce participants are in favor of such a law, fearing the rigidities and costs that it would likely impose on a still rapidly evolving sector. While passing a law is a “tool” that may reduce legal uncertainty, it can also be a blunt instrument that cramps innovation and stifles especially the nascent digital commerce sector to be found in much of Africa today.

## Policy Lever 2 To Promote Employment

The terrain of active labor market policy choices is sprawling and complex, and the effectiveness of measures is often contested. This paper does not intend to be, nor attempt to present, a thorough summary of the issues and the evidence in this terrain. Rather, our aim here is to provide examples that focus on where there are emerging or potential connections between the digital world -- represented by digital commerce -- and the world of labor market choices.

Policy measures to promote employment can be targeted at both the demand and the supply side of employment opportunities. Examples of demand-side measures include public works programs, employer subsidies or tax relief, the certification of employers, and “impact sourcing”.

*Public works programs* have been popular sources of jobs in various countries. For example, the South African government’s Extended Public Works Program has funded government agencies, contractors, and non-governmental organizations (NGOs) to employ 5.5 million jobless people -- with a specific youth target -- on a temporary or ongoing basis across the first two phases to 2013. A group of South African researchers concluded in 2018 that this extensively reviewed program had generally met its targets for employment creation.<sup>48</sup> While this particular initiative has provided an income for unemployed people, it has by its nature created no sustainable new jobs or even had an outcome on the employability of its participants.

As a particular example of a *tax incentive* targeted at employment creation, the South African government’s Youth Employment Tax Incentive, created in 2014 and due to end in 2019, provides rebates to employers who hire eligible youths aged 18-29 years (or older in special economic zones).<sup>49</sup> Ranchhod and Finn (2016) have found that despite spending more than US\$160 million up to that stage, this scheme may not have increased the overall likelihood of young people finding work.<sup>50</sup> Further, the net job creation effect may be relatively minor after considering leakage or displacement

effects.<sup>51</sup> However, De Lannoy *et al.* (2018) observed that the tax incentive became more effective when it was embraced by small firms, a significant distinction given that digital commerce tends to favor the entry and scaling of small firms.<sup>52</sup>

Digital Jobs Africa, a project of the Rockefeller Foundation, reports some success in promoting “*impact sourcing*” (i.e., the active targeting of outsourced jobs to specific groups, including African youth) by multinational corporations that are also looking for a positive corporate social impact.<sup>53</sup> However, while positive, the scale of this initiative, now concluded, seems to have been relatively limited, given that an estimated 12 percent of all outsourced jobs were impact sources and that it depended on multinationals willing to invest in the upfront effort.

In a similar vein, the Fairwork Foundation was set up in 2018 following research by Mark Graham and other academics at the Oxford Internet Institute into the precarious situation of crowd-sourced workers.<sup>54</sup> This new Foundation aims to promote a certification process for employers who advertise for work of this type as a means of encouraging good standards in the gig economy. Much will depend on whether there is sufficient public pressure on employers (largely in northern countries) to adhere to these standards, even if that might mean paying more for services.

On the supply side of labor markets, policy measures in use include providing more *comprehensive and reliable ratings* on work. Harvard economist Amanda Pallais conducted an experiment assessing the impact of providing better reference information online on workers’ job performance on their future employment outcomes.<sup>55</sup> She was able to show that the act of providing inexperienced workers (such as youths) with more detailed online reviews of their work substantially improved their subsequent employment outcomes. She also estimated that the market benefits exceeded the cost of this intervention, which carries important messages for online hiring. Curating the credibility and ensuring the transferability of online ratings may enable new entrants to build an independently verified curriculum vitae that smooths their entrance into the jobs market.

Policy may also encourage digital workers to self-organize. While organizing a decentralized workforce connected only through a digital platform is inherently harder to achieve than to organize workers in a physical workplace, there has nonetheless been a range of efforts made to organize digital workers. ILO researchers Johnson and Land-Kazlauskas have chronicled the efforts of Uber drivers in the developed world to organize.<sup>56</sup> In African countries, shared-ride driver associations and even unions are being created wherever the platforms are established, with driver organizations now in cities in Kenya, Nigeria, and South Africa.<sup>57</sup> Workers are able to use superplatforms such as Facebook and WhatsApp to communicate and coordinate collective actions, for example strikes. Some digital platforms (such as Uber in New York) have even embraced this approach as a path to working with a more stable workforce and provide access to driver contacts for an approved workplace forum.

## Mapping Choices to the Different “Worlds”

A wide range of measures has been tried with varying success to promote digital commerce and employment separately. The outcome of choosing measures that align these two complex issues is uncertain. In addition to the initial conditions in a market, the “world” within which a measure is taken will likely have an effect on its effectiveness. However, there is a set of policy actions that may be called “no regret”, since they will probably serve their purposes in any of the worlds discussed above in the scenarios section. These “future-proofed” policies can be summarized as follows:

- **Gather better information on digital commerce and employment:** UNCTAD has cited the dearth of accurate data on the growth of digital commerce, especially in least-developed



countries, as a contributing factor to the risk of a growing digital divide<sup>58</sup> and has also launched efforts to improve data collection and availability.<sup>59</sup> At the very least, the collation of better national and comparable cross-country data on digital commerce would serve as the basis for proposing and measuring policy efforts. In addition, data on labor markets in African countries are at present relatively scarce, highlighting the crucial need to improve surveys to monitor labor markets. Policymakers can commission national digital commerce rapid assessments to understand and address the barriers to digital commerce.

- **Monitor evolving trends:** Digital commerce is complex, and making sense of the growing mass of research and information coming out of diverse experiences is challenging. At the very least, African governments, on an individual or regional basis, could establish “observatories”, which track this research and interpret and disseminate it in a locally relevant way. The UN Economic Commission for Africa (UNECA) may play this role at an AU level, but there is a need for a network of research centers across the continent that can analyze trends through the differing lenses of local conditions.
- **Promote wider understanding of and familiarity with the issues of digital commerce:** Policymakers should consider developing training courses and exposure opportunities on digital commerce, which help to build a constructive national dialog inside government and across stakeholders.
- **Prioritize certain forms of digital skills literacy:** Policymakers should emphasize digital commerce skills, such as marketing and digital customer relationship management, which are usually neglected in favor of more hard technical skills, such as coding.

These no-regret policies generally involve limited resources and would probably be relevant in most places, and certainly within most future “worlds” we can contemplate. These measures could form part of a wait-and-see approach, which may be more appropriate in nascent markets.

However, in markets with growing traction there is a case to be made for policymakers to adopt a stance of more active engagement using a “test-and-learn approach”.<sup>60</sup> Test and learn does not assume that policymakers need to get everything right up front; rather, it encourages a progressive approach to targeted experimentation, which would answer questions about the relevance and effectiveness of measures over time. A test-and-learn approach can lead to the formulation of comprehensive strategies and policies grounded in local experience. To illustrate the possibilities, here are just two examples that could fit under a “test-and-learn” approach.

## Examples of Test-and-Learn Approaches

Building on the effectiveness of public works programs, national policymakers could employ a digital labor program to develop and manage a digital version (an “iPublic Works Program” (iPWP)) for youth. It would target urban youths who already have smartphones on which they can access public works opportunities, manage them, and get paid. Work tasks could be “bite-sized” and build up relevant skills. A rating system could create a reputation history for each youth and enable them to get other employment opportunities. There are already small-scale live examples of approaches from which governments could learn further. Zlto, a program run by RLabs in South Africa, is an example of a platform which rewards youth both monetarily, with digital currency, and via ratings for engaging in community services.<sup>61</sup> Through Zlto, youth can make money by engaging in social community work, such as cleaning someone’s garden or picking up rubbish on the streets. Users of Zlto are required to take before and after pictures to provide proof of completed tasks. Task validators go out to inspect the work at the respective locations and update the Zlto system. After the task validation, the “Zlto

Exchange” converts the work into Zlto digital currency. This accumulates in the individual's virtual wallet, where they can check their work, balance, and rewards. Rlabs has partnered with over 1,000 stores where users can redeem their earned digital currency. Program partners have access to real-time dashboards, which allow them to track the positive behavior of users. Users can also track their personal behavior, which is stored and managed on the Zlto system. Since its launch in 2016, Zlto has increased and tracked the positive behavior of more than 25,000 youths.<sup>62</sup>

On a wider policy level, policymakers could test changes in the combinations of waiver of labor, tax or other measures that may impede the emergence of iWorkers as a productive labor market segment. By 2030 there may be between 30 million and 80 million iWorkers as defined in the previous section under different assumptions. They could become a substantial segment of the total 2030 sub-Saharan labor force of 600 million. iWorkers could provide a means of absorbing mainly young people who will enter the labor market in the next decade. But to allow this would necessitate a change in mindset, away from the notion of prioritizing formal jobs as we know them to embrace the need for the new category on a spectrum of formalization. The precise nature of the spectrum could be tested in legal “sandboxes”, areas of defined scope in which policymakers may waive current restrictions on a limited and supervised basis to judge the effects. Measures to test in specific national contexts could include:

- Incentivizing gig platforms to provide access to training and contributory benefits without falling foul of deemed employers
- Exempting workers from other restraining labor laws
- Allowing platform-based bookkeeping, which reports statistics and does tax filing as needed, especially for small enterprises
- Encouraging robust reputation portability to enable records to be portable across labor platforms

The restriction of measures within defined sandboxes for experimentation would also allow policymakers to understand the effect on fiscal policy of offering tax incentives and of not requiring full compliance from the start. As governments in developed countries wrestle with how to update laws and policies to accommodate the emerging world of work,<sup>63</sup> so there is room for African governments to begin actively to explore responses and modifications that are relevant in their very different settings.



## Section 5 **Why Is This Issue Important Now?**

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*"If Mexico's [policies and institutions] were reformed along the lines suggested, the labels formal and informal would be unnecessary and uninformative, a relic of the past."*

*- Santiago Levy*

This report has concluded that digital commerce will continue to grow in most of Africa over the period to 2030. It may even generate more than US\$500 billion a year by 2030, equivalent to close to 10 percent of expected continental gross domestic product. While digital commerce is in its early stages in most African countries, it may be more susceptible to national policy choices now than at a later stage, when it is more entrenched. The next few years may therefore provide a window of opportunity for prescient policy action. African policymakers may be able to expedite the growth of digital commerce, even in the absence of an international agreement.

The effects of this almost certain growth on the world of work is not certain; it could affect the livelihoods of up to 80 million new workers, which is more than 13 percent of the projected African labor force in 2030. While digital commerce is likely to affect all sectors of all economies over time, our analysis suggests that, in most of Africa, this revolution is generally not to be feared but rather embraced. Digital commerce is indeed likely to disrupt formal employment in certain sectors, but formal employment is so meagre in so much of Africa that the much greater countervailing effect may be that digital commerce improves the productivity of what we today view as the informal sector. Digitization has the potential to turn the binary choice of formal versus informal labor into a sequenced ladder of choices, whereby workers and small firms can gradually ascend toward higher incomes and also better access to services. This path requires patience on the part of policymakers, though, and it requires courage and insight to see beyond the fears of disruption that pervade much of the dialogue in industrialized nations to forge a truly African path -- the path of the iWorker. On this path, the labels “formal” and “informal” will lose their significance and gradually fade.

For this reason, this report advocates at least a series of “no regret” basic policies through which African governments on their own -- or together through AU agencies and supported by international agencies such as UNCTAD and UNECA -- may be able at the very least to start to monitor and engage around the effects of digital commerce on their economies. But they can, and some should, do more, starting now: this report also outlines the case to test and learn about more complex and ambitious measures, such as the concept of the iPublic Works Program or an active iWorker policy. While the path to promoting good work through formal jobs as we know it today may seem like scaling a cliff, measures such as these create policy ladders that will make the giant task more feasible.



## Endnotes

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<sup>1</sup> The term “digital commerce” is now being used internationally to replace e-commerce, much as “digital payments” has come to replace e-payments over the past decade. Digital commerce is a wider term and we will use it, except where a specific usage or existing referencing requires the use of the term e-commerce.

<sup>2</sup> OECD, “Glossary of Statistical Terms - Electronic Commerce Definition.” January 17, 2013. Accessed December 19, 2018 at <https://stats.oecd.org/glossary/detail.asp?ID=4721>

<sup>3</sup> World Trade Organization (WTO). Ministerial Declaration on Global E-Commerce. WT/MIN(98)/DEC/2 (May 20, 1998).

<sup>4</sup> US Census Bureau. 2018.

<sup>5</sup> International Trade Centre (ITC). 2017. *BRICS Countries: Emerging Players in Global Services Trade*. Geneva: ITC.

<sup>6</sup> UNCTAD (2017), Chapter 7, Table 7.4 shows how the proportion of international small packets sent from Asia and Oceania has risen significantly from 25.5 percent of the global total in 2011 to 43 percent in 2016. By contrast, Africa’s share of sending small parcels has remained more or less constant around one percent of the global total.

<sup>7</sup> Dai, Ruochen and Xiaobo Zhang. 2015. *E-commerce expands the bandwidth of Entrepreneurship*. Peking University.

<sup>8</sup> Fan, Jingting, Lixin Tang, Wenming Zhu, and Ben Zou. 2018. “The Alibaba Effect: Spatial Inequality and Welfare Gains from E-commerce.” *Journal of International Economics*. 114 (2018): 203-220.

<sup>9</sup> Couture, Victor, Benjamin Faber, Yizhen Gu and Lizhi Liu. 2018. “E-Commerce Integration and Economic Development: Evidence from China.” No. w24384. National Bureau of Economic Research.

<sup>10</sup> The e-commerce index is a combination of different indicators: internet users, secure servers, account penetration, and postal reliability score. Data on these indicators is from sources such as the World Bank, the International Telecommunication Union (ITU), Global Findex, and the Universal Postal Union (UPU).

<sup>11</sup> See FIBRproject.org.

<sup>12</sup> International Labour Organization (ILO). 2018. *Women and Men in the Informal Economy. A Statistical Picture*. Geneva: International Labour Organization.

<sup>13</sup> United Nations Department of Economic and Social Affairs (UNDESA), “2018 Revision of World Urbanization Prospects.” May 16, 2018, accessed December 19, 2018. Available at <https://www.un.org/development/desa/publications/2018-revision-of-world-urbanization-prospects.html>.

<sup>14</sup> “Number of Unique Mobile Subscribers in Africa Surpasses Half a Billion, Finds New GSMA Study.” Newsroom (blog), July 26, 2016, accessed December 19, 2018 at <https://www.gsma.com/newsroom/press-release/number-of-unique-mobile-subscribers-in-africa-surpasses-half-a-billion-finds-new-gsma-study/>

<sup>15</sup> Rodriguez-Gitler, Ariana. “Basic Mobile Phones More Common than Smartphones in Sub-Saharan Africa.” Pew Research Center’s Global Attitudes Project. October 9, 2018. Accessed December 19, 2018 at <http://www.pewglobal.org/2018/10/09/majorities-in-sub-saharan-africa-own-mobile-phones-but-smartphone-adoption-is-modest/>

<sup>16</sup> Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington, DC: World Bank.

<sup>17</sup> See Porteous and Moracyznski (2017) for a fuller description of superplatforms and their importance.

<sup>18</sup> World Trade Organization (WTO). 2017. The Work Programme on Electronic Commerce: Statement by the African Group. Ref WT/MIN (17)/21.

<sup>19</sup> According to Stelly (2017), the Friends of E-commerce for Development (comprising Argentina, Chile, Colombia, Costa Rica, Kenya, Mexico, Nigeria, Pakistan, Sri Lanka, and Uruguay) launched in 2017 and is working to “advanc[e] the discussion on the link between e-commerce, trade and development,” noting that e-commerce is a tool to drive growth and narrow the digital divide.

<sup>20</sup> The Africa Union (AU) convened a conference on e-commerce in Nairobi in June 2018 with the aim of creating a roadmap to explicitly integrate e-commerce into the agreement. See AU (2018). E-commerce conference Concept Note. Available at [https://au.int/sites/default/files/newsevents/conceptnotes/34500-cn-draft\\_concept\\_note-11062018\\_eng\\_1.pdf](https://au.int/sites/default/files/newsevents/conceptnotes/34500-cn-draft_concept_note-11062018_eng_1.pdf).

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- <sup>24</sup> Levy, Santiago. 2018. *Under-Rewarded Efforts: The Elusive Quest for Prosperity in Mexico*. Inter-American Development Bank.
- <sup>25</sup> Alibaba, “Alibaba: Number of Employees 2018 from 2012 to 2018.” Statista, 2018. Accessed November 09, 2018 at <https://www.statista.com/statistics/226794/number-of-employees-at-alibabacom/>
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