

BFA GLOBAL

the  
**iworker**  
project

# The iWorker Project

## Country Diagnostic Report: Ghana

---



January 2020

## Foreword

In 2018, the Mastercard Foundation launched a new strategy – Young Africa Works – to address a key issue facing Africa's future: work opportunities for young women and young men. Between demographic pressures, growing structural inequalities, and private sector actors eager to unlock innovation and drive growth, there are many opportunities to support change and catalyze impact for the benefit of young people. Along with our partners across several countries in Africa, the Mastercard Foundation seeks to connect 30 million young women and young men with dignified and fulfilling work by 2030.

Technology offers potential to reshape work opportunities for young women and young men across Africa. Global trade is facilitated by the internet, local goods and services are made more efficient by apps and e-merchants, and new business models are emerging which both provide critical services to previously under-served populations. We continue to explore the potential opportunities that digital work may offer in addressing youth employment challenges across the continent. While technology is not alone in shaping the future of work, disruptions caused by technological advances, and the accompanying social changes, will undoubtedly affect the work opportunities of the future.

We are extremely pleased to explore these issues in Ghana with BFA Global. This report is the result of country diagnostic research and extensive consultations with country stakeholders, including identification of potential options to unlock more digital work in Ghana. Research can spark a process of reflection – both the compilation of fact and the aggregation of perspectives – that drives conversation and dialogue. Our wish is that the dialogue started in this research project continues, particularly in Ghana, where iWorkers could be catalytic contributors to a new era of development progress.

In an increasingly complex world, the simple questions are sometimes those which are most vexing. How can digital work be both dignified and fulfilling for young women and young men in Ghana? I hope you will join with the Mastercard Foundation in seeking an answer to that question, both in this report and going forward. The answer will require many stakeholders to consider how we can work towards a more inclusive, just world that offers dignified and fulfilling work opportunities – in Ghana and beyond.

Tricia Williams, PhD  
Thematic Research Lead  
Mastercard Foundation

## Executive Summary

1. iWorkers are people whose livelihoods are enabled by digital commerce platforms. Many, including gig workers, e-lancers, and e-commerce merchants or sellers, are self-employed, but some are employed by other gig workers, e-lancers, and merchants. By definition, iWorkers have connectivity to the internet, usually via a smartphone. They are often younger than the workforce in general. While the proportion of people in this category is small worldwide, it is growing fast and is typically larger in middle-income than in higher-income countries.
2. While the emergence of more iWork over time is almost certain as economies digitize, the nature and quality of that work is not certain. The iWorker hypothesis is that by enabling iWork to be progressively formalized, it can become more productive, and iWorkers can therefore enjoy better incomes over time. The way in which policy and law treat iWork can help to move away from the formal/ informal work dichotomy that has characterized many developing economies.
3. Less than 1 percent of the adult population of Ghana can today be classified as iWorkers. However, as the labor force grows and digital connectivity expands, it is possible that between 2.3 million to 4.6 million people could become iWorkers by 2030,<sup>1</sup> equivalent to between 15% to 29% of the expected labor force. This is a relevant and important segment of the labor force in the midst of concerns around “jobless growth”.
4. An economy enables iWork if it meets at least a set of six enabling conditions. This report tests a new diagnostic tool that evaluates the extent to which the current environment in Ghana enables iWorkers to emerge and develop, based on diagnostic interviews with a range of stakeholders from government, the private sector, and the research sector.
5. In general, the biggest constraints on the emergence of productive iWork in Ghana are not the barriers created by government policy or the legal environment; rather, it is the perceived and actual lack of coordinated support to start on this path today. One strong incentive could come from enabling Ghanaian iWorkers to access wider international markets through appropriate trade agreements and frameworks.
6. While there are many digital government initiatives underway in Ghana today, they are not always consistently coordinated or communicated. The report highlights some opportunities for Ghanaian policymakers to do more to encourage the emergence of iWork in the short and longer run, and for the Ghanaian private sector to engage more to help the government shape and implement enabling frameworks.

## Table of Contents

<b>Executive Summary</b> .....	1
<b>Acknowledgements</b> .....	5
<b>Glossary</b> .....	6
<b>1. Introduction</b> .....	7
Box A: The iWorker enablement conditions.....	7
<b>2. The face of the iWorker in Ghana</b> .....	8
2.1 Sizing the iWorker segment .....	8
2.2 Segmenting iWorkers further.....	9
2.3 Perceived and actual benefits of iWork .....	11
<b>3. Digital infrastructure and commerce platforms</b> .....	12
3.1 Internet access.....	12
3.2 Online payments access .....	13
3.3 Doing digital commerce in Ghana .....	13
<b>4. Policy and institutional issues</b> .....	15
4.1 Employment laws and policy .....	15
4.2. International trade policy .....	17
4.3 Other legal and policy issues affecting digital commerce .....	18
4.4 Taxation and social benefits.....	19
<b>5. Recommendations</b> .....	21
5.1 Short term.....	21
5.2 Longer-term concept for iWork development .....	22
<b>6. Conclusions</b> .....	23
Annex A: iWork Enablement Score.....	25
Endnotes .....	29

## Acknowledgements

We would like to thank all participants who provided information in interviews, and especially the wide range of specialists from government, business, and civil society, including iWorkers, for their presence and active contribution to the workshop in Accra in May 2019, at which the results were tested. Also, our thanks are due to Tricia Williams and Olga Morawczynski of the Mastercard Foundation, who commissioned and guided the work.

This report was supported by the Mastercard Foundation as part of the Future of Work in Africa research initiative. The views expressed in this report do not necessarily represent those of the Mastercard Foundation.

## Glossary

**AfCFTA:** African Continental Free Trade Area  
**ATPC:** African Trade Policy Centre  
**AU:** African Union  
**BEPS:** Base Erosion and Profit Shifting (OECD/G20 initiative)  
**ECOWAS:** Economic Community of West African States  
**GHC:** Ghanaian cedi (GH₵)  
**GPRTU:** Ghana Private Road Transport Union  
**GRA:** Ghana Revenue Authority  
**GSS:** Ghana Statistical Services  
**ILO:** International Labour Organization  
**MELR:** Ministry of Employment and Labor Relations  
**MOF:** Ministry of Finance  
**MITI:** Ministry of Trade and Industry  
**MSE:** Micro and small enterprise (business with fewer than ten employees)  
**NBSSI:** National Board for Small Scale Industries  
**NEIP:** National Entrepreneurship and Innovation Plan  
**NITA:** National Information Technology Agency  
**OECD:** Organization for Economic Co-operation and Development  
**PAYE:** Pay As You Earn  
**RGD:** Registrar General's Department  
**TIN:** Tax Identification Number  
**TUC:** Trades Union Congress  
**VAT:** Value-added Tax  
**VCTF:** Venture Capital Trust Fund  
**WTO:** World Trade Organization  
**YEA:** Youth Employment Agency

Currency as at February 12, 2020 = GH₵5.36:US\$1

# 1. Introduction

Digital commerce is changing the structure of economies worldwide, bringing both disruption and opportunity. By 2030 most young people globally will almost certainly be at least consumers of digital content, and many will likely also consume goods and services bought online. However, it is less certain that digital connectivity will also help to create and sustain productive, dignified, and fulfilling work for them. This was the conclusion of a BFA Global report entitled *Digital Commerce and Youth Employment in Africa*.<sup>2</sup>

The report identified a new category of digital workers, which it named “iWorkers”. **iWorkers are people whose livelihoods are enabled by digital commerce platforms.** iWorkers may be self-employed gig workers, or they may work in small enterprises which sell goods or services online. The report estimated that there could be between 30 million and 88 million<sup>3</sup> new workers in this category in sub-Saharan Africa by 2030, a sizable proportion of the labor force. iWorkers do not fit neatly into the old binary categories of formally or informally employed workers. Rather, they live and work on the spectrum between these two poles. The iWorker hypothesis asserts that iWork is more likely to be a source of meaningful and dignified work if there is a clear path towards enabling it.

The **connection between digital commerce and the world of work matters** in the context of rising concerns about the growing number of jobless people. This is one of Ghana's largest challenges, as the labor force expands by over 400,000 people per year on average between now and 2030.<sup>4</sup> Ghana's Ministry of Employment and Labor Relations is also considering its response to the rise of what the International Labour Organization (ILO) calls alternative forms of work. Beyond Ghana, too, digital work presents an opportunity for the estimated 10-12 million young Africans joining the job market each year.<sup>5</sup>

UNCTAD's Rapid E-Trade Readiness Assessment is an example of a currently available methodology to evaluate whether a country has the foundations in place for the growth of e-commerce, a subset of digital commerce.<sup>6</sup> Approaches like this look at factors such as the quality and availability of digital infrastructure, which are also necessary enabling conditions for the emergence of iWork. However, the **iWorker hypothesis goes beyond these foundational factors to consider in more detail the linkages of digital commerce to labor markets** and the incentives and institutions around them. This report pilots the assessment of these conditions, summarized in the box below, which enable or constrain the emergence of iWorkers in Ghana.

## Box A: The iWorker enablement conditions

A country environment is enabling for iWork if it satisfies at least the following conditions:

1. **Internet access:** Internet access is widespread, reliable, and affordable for iWorkers.
2. **Digital payments:** iWorkers can pay and receive online micropayments securely, quickly, and cheaply.
3. **Legal and policy environment:** The law is clear with respect to digital contracts, and open to flexible contract work with one or more online sources.

4. **Tax environment:** The tax code is clear for contract work and self-employment, and the tax burden does not disincentivize self-employment.
5. **Perceived and actual benefits:** iWorkers perceive clear benefits and receive actual benefits, including training from participation in online work.
6. **Digital commerce platforms:** Digital commerce platforms which connect iWorkers to customers are active and growing.

This report summarizes the findings of the iWorker diagnostic methodology applied to Ghana in 2019. The breakdown of the subfactors used to score the status of each condition above can be found in Annex A, while the general reasoning behind the overall score for each component (on a scale of 1 = very low enablement to 5 = very high enablement, calibrated to African standards) is explained in each relevant section of the report.

The purpose of this report is:

- to test a new diagnostic approach which integrates an assessment of how the policy, legal, infrastructure, and demand environment affects the emergence of iWork
- to assess how these factors contribute towards iWork specifically in Ghana
- to make some initial recommendations to Ghanaian stakeholders about improving the prospects for iWork to contribute meaningfully to employment.

Section 2 of the report starts on the “supply side” of the factors shaping the current and future entry of iWorkers. Section 3 considers the strength of enabling factors in the areas of digital infrastructure, payments, and platforms. Section 4 assesses the legal, tax, and international trade environment for Ghana, and Section 5 lists some recommendations for policymakers, the private sector, and international organizations.

The information for this report was collected from primary sources during interviews held between March and May 2019 and from a range of secondary resources cited throughout in the report. A draft of this report was discussed with a group of Ghanaian stakeholders at a workshop on May 20-21, 2019.

## 2. The face of the iWorker in Ghana

### 2.1 Sizing the iWorker segment

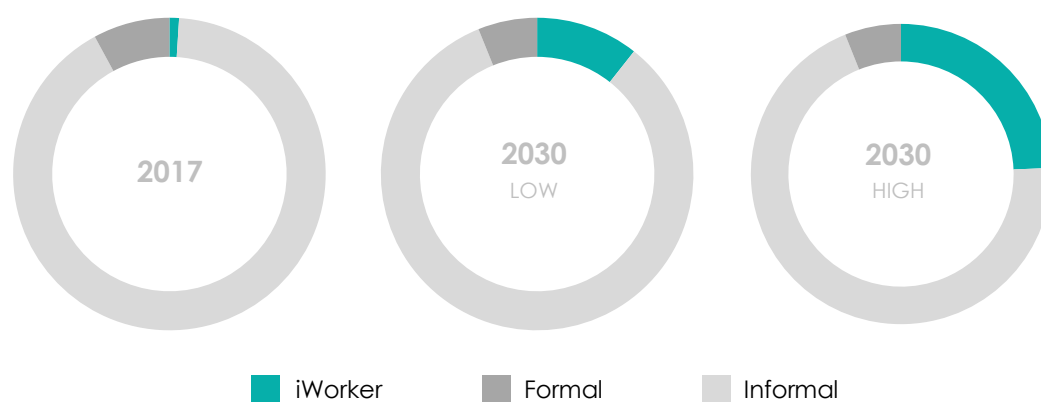
No surveys have systematically measured the size of the iWorker segment consistently across different countries, because it cuts across traditional boundaries of measurement. Nonetheless, there have been cross-country surveys which have attempted to measure some of the sub-categories making up iWork, in particular “gig workers”, engaged in highly temporary work, or “microworkers, delivering small pieces of work usually through internet-based platforms. A 2019 report by Boston Consulting Group (BCG), *The New Freelancers: Tapping Talent in the Gig Economy*,<sup>7</sup> found that while 1-4 percent of people in developed economies relied on gig work for their income, this proportion was already



much higher in economies such as China or India. In Africa, a cross-country survey conducted by Research ICT Africa (2018)<sup>8</sup> estimated that 1 percent of adults in Ghana engage in what they called “microwork”, compared with 3 percent in Nigeria and South Africa.

The iWork concept covers more than gig work, however: it includes both people selling goods online and those who are employed by them. Applying the same projection framework used in our 2019 report on digital commerce and youth employment to Ghanaian data, we estimate that by 2030 between 15% to 29% of the total labor force in Ghana may be iWorkers - that is, between 2.3 million to 4.6 million people.

**Figure 2.1.** Ghana iWorker Projections

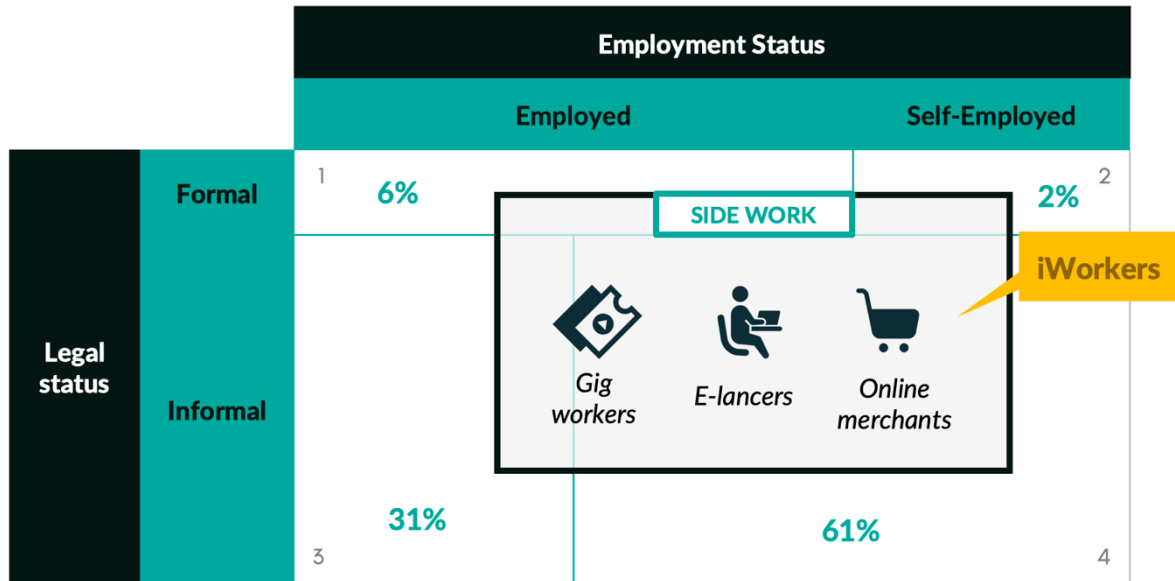


Source: iWorker forecast model, drawing on background data from a range of ILO and World Bank database

## 2.2 Segmenting iWorkers further

iWorkers are a diverse group of people engaged in a variety of online work. Figure 2.2 below shows how **iWork transcends the traditional boundaries both of employment status** - it may include some employed people (labeled as quadrants 1 and 3), although the majority are more likely to be self-employed - **and of legal status** - whether formally contracted and in compliance with labor and tax law or not (labeled as quadrants 2 and 4). The irregular size of the quadrants is roughly a reflection of their projected proportions: the largest group (61% of people) consists of informally self-employed people, which may include small traders and farmers, while the second-largest group is made up of informally employed people. iWork cuts across these segments, although as indicated by the location of the oval shape, iWorkers are more likely to be found in what is today the informal half and more oriented towards forms of contracting and self-employment. The size of the oval is not proportionate to its current size - which is small, as noted in the previous section - but rather to its potential to expand over time in these directions.

**Figure 2.2:** iWorkers in the landscape of work



Source of %: based on ILO (2018) figures for West Africa as a whole.

Even full-time formally employed people (quadrant 1 above) may be iWorkers on the side - part-time iWork has been a growing phenomenon in developed and developing markets. According to BCG's 2019 report on *The New Freelancers*, as many as three times more people work part-time than full-time on gig platforms to supplement their income.

While Figure 2.2 makes it clear that iWork extends beyond gig work only, gig workers have often been the most visible face of the iWorker. Various efforts have been made to further segment this growing group. UNCTAD<sup>9</sup> distinguishes between gig work, which is location-based (for example, transportation or delivery services on a platform such as Uber), and cloud work, which is web-based, so location-independent. The latter category includes freelance marketplaces (such as Upwork) as well as microtask crowd-sourced platforms such as Amazon Mechanical Turk. The 2019 BCG report distinguishes between gig workers according to the nature of their relationship with the platform: those whose work is assigned and processed by the platform and those who negotiate their own work on an individual basis.

Many Ghanaian iWorkers work for e-hailing taxi platforms such as Uber or offer delivery services. Freelancing also appears to be gaining popularity. In addition to private digital commerce platforms, the Ghanaian government has launched the Ghana Digital Jobs platform through the National Entrepreneurship and Innovation Plan (NEIP) as a way to promote work among young people through e-lancing, although this appears to be still in its early stages.

As we have also found from research in East Africa,<sup>10</sup> small merchants in Ghana are increasingly using digital tools, especially social media platforms such as Instagram to market their wares, and communication apps such as WhatsApp to manage the relationship with their customers. These tools

are free and ubiquitous among people with smartphones and are increasingly being used to generate income. This growing group are already iWorkers, even though they are not yet acquired by or transacting through formal e-commerce platforms such as Jumia, which is active in Ghana. While Ghanaians have adopted these social media tools without any formal training, it is clear that using digital tools in an enterprise setting, however small, raises new expectations and needs, for which further training would be useful and welcome.

## 2.3 Perceived and actual benefits of iWork

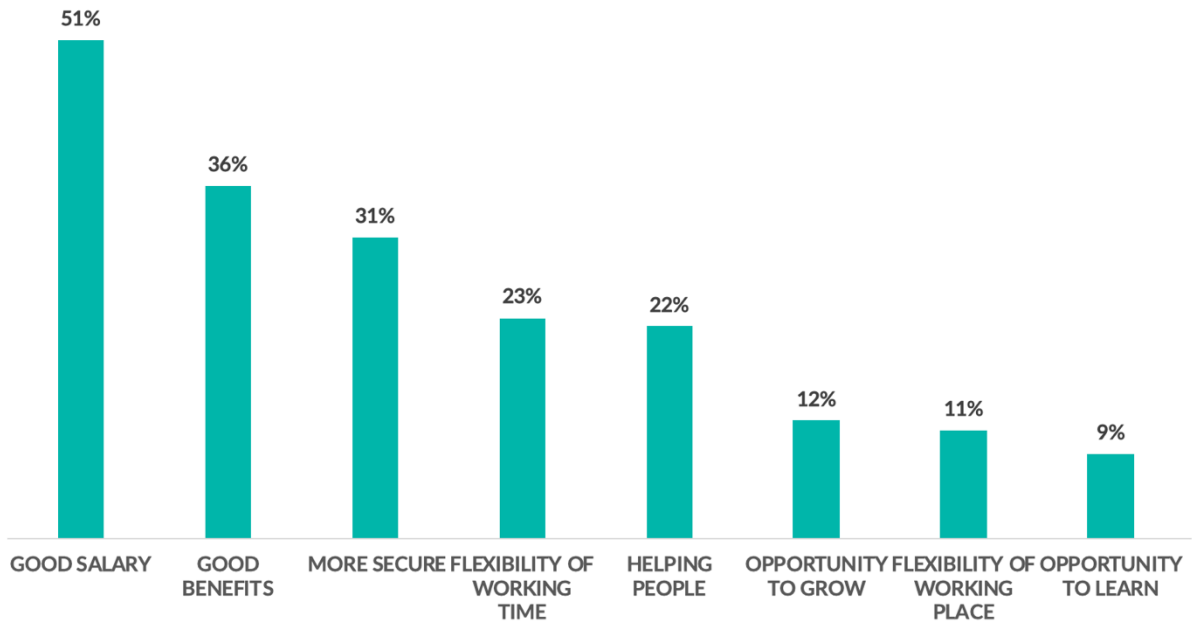
Interviews conducted in Accra confirm that iWorkers of most types are already present in Ghana today. Ghanaian iWorkers tend to be younger on average than other workers but tend to vary in terms of educational status, type and level of skill, type of online work, reasons for engaging in online work, and the time dedicated to online work. According to Research ICT Africa, 56 percent of microworkers in Ghana hold secondary school certificates.<sup>11</sup> While formal education is not a prerequisite to be an iWorker, it is an important consideration because it can influence the nature and scope of the available online work. In his 2018 article "Jobless Growth Is Ghana's Biggest Youth Challenge",<sup>12</sup> William Baah-Boateng notes that the unemployment rate is higher among those with higher levels of education than among those who are less educated. For these people, iWork can offer a pathway to formal employment opportunities. However, should iWork prove increasingly skill-biased as opposed to drawing on a wide base of education levels, it may drive a deeper wedge of inequality between this more productive segment of the emerging workforce and the traditional informal sector.<sup>13</sup>

Since formal jobs account for only a small proportion of work opportunities, it is important that iWork is not the only - or dominant - pathway to formal employment. iWork should offer a pathway to long-term livelihoods for those who do not wish to obtain or would not qualify for formal employment as defined today. This pathway for less educated and entrepreneurial individuals will require much better digital commerce literacy, among other things. While today's iWorkers may start by using the social media tools they know and already use, there is a considerable jump in skill and awareness levels required to attain the enterprise-level digital skills that expanding small businesses require. These programs are not widely available today, and linking such training more closely to on-boarding and growth on digital commerce platforms would be helpful.

The supply of iWorkers will be heavily influenced by their expectations of future employment conditions, that is, the extent to which iWork can satisfy their work aspirations. A 2019 survey administered by Farmerline, an organization which provides access to farming information through mobile technology, found that young people in Ghana today aspire primarily to have work that pays a good salary, provides benefits, and guarantees security. As shown in Figure 2.3 below, these aspirations are ranked above other features, such as flexibility of working hours, work location, and exposure to opportunities to grow or learn, which are more characteristic of iWork. Gig work, as one type of iWork, rarely comes with benefits and offers no security or regular income flow. These rankings suggest that the appeal of a formal job remains strong for many young people, even if it is out of line with what is likely to be on offer. While iWork could provide a good income and even benefits in future, it is not yet top of mind as an option. For this to happen would require awareness of success stories of iWorkers and the ability to replicate these on a large scale. The growth of voluntary associations of

emerging iWorkers who are able to share their experiences and articulate their interests to government and platforms would also help in this respect. There is some evidence that this is starting to happen in Ghana as elsewhere, linked to the activities of existing representative bodies such as the Ghana Artisans' Association and the Trades Union Congress.

Figure 2.3: Expectations held by youth of their future employers



Source: Farmerline Survey of Ghanaian youth 2018, n=1862

iWork in general is at an early stage in Ghana. While there is evidence that the number of iWorkers is growing, there is as yet no evidence to support either the perception or the reality that iWork can, over time, generate benefits which exceed any of the transaction- and tax-related costs of undertaking more formalized digital work. For this reason, the overall score for this crucial supply-side condition is assessed to be lower than average, at 2.

iWorkers perceive clear **benefits** from formalization and receive actual benefits.

2

3. Digital infrastructure and commerce platforms

3.1 Internet access

Research ICT Africa<sup>14</sup> notes that the vast majority of Ghanaians access the internet through their mobile phones. The price for 1 GB of mobile data volume is just over 2 percent of an average monthly

income, compared with the African average of 8.76 percent.<sup>15</sup> However, while the cost of data is lower than in many other African countries, it is still considered expensive by Ghanaians, especially by candidates being interviewed for iWork. This measure should ideally be calculated as a percentage of an iWorker's income, since it is an essential cost of doing business.

In addition, data quality is not optimal, and connectivity is often spotty. To access high-quality data, iWorkers are forced to look for public shared spaces, such as internet cafes or co-working places, where high-speed internet may sometimes be more expensive. Moreover, the additional costs of getting to these places, for example transportation costs, add up. For these reasons, the score assigned to this condition is mid-range at 3.

**Internet access** is widespread, reliable, and affordable for iWorkers.

3

### 3.2 Online payments access

The adoption and usage of mobile money transfers and payments in Ghana has grown rapidly to reach 39 percent of the adult population in 2017, up from 13 percent in 2014 (FINDEX).<sup>16</sup> On the back of this surge, the proportion of the population which made or received a digital payment in 2017 was double the proportion reported in 2014. However, the dominant use case is not for payments online, and a relatively small proportion of the population currently uses mobile money for this purpose. The proportion of people who pay bills or buy online is 7.8 percent, very similar to the average in sub-Saharan Africa, supporting the average score in this category.

Notwithstanding the growth in mobile money usage and acceptance, iWorkers and other stakeholders interviewed for this report cited lack of access to digital payments as an obstacle to emerging iWork. While mobile money payments are commonly accepted for local transactions, iWorkers selling services internationally need also to accept other means of payment from international customers. One iWorker cited the inability to receive payments as the major reason why he stopped selling goods on international e-commerce platforms such as eBay. While this iWorker still sells using Facebook, he receives payments through Western Union or Wave, although he prefers the latter, as he can receive the money directly in his mobile money wallet. This lack of international payment options is the reason why this score is also mid-range, and not higher.

**iWorkers can pay and receive** online micropayments securely, quickly, and cheaply.

3

### 3.3 Doing digital commerce in Ghana

Digital commerce platforms connect iWorkers to their clients. They play a vital role in building both sides of the market for iWork, so it is important for the development of iWork that local conditions allow these platforms to set up and flourish.

Doing digital commerce is a particular aspect of the wider landscape of doing business in a country. On the wider measure, out of 190 countries Ghana ranks mid-range (114th) in the World Bank's Ease of Doing Business index.<sup>17</sup> The Doing Business measure combines, among other market conditions, aspects relating to employment law, which are covered in the next section but from a different perspective, as well as the ease of business registration, which affects the ability to formalize a business.

The UNCTAD E-commerce Readiness Index, most recently published in 2018 using 2017 data, combines available measures of internet access, secure servers with postal reliability, and the presence of financial accounts to come up with a single number for a country on an index scale between 0 and 100. It provides a ready proxy for the likely growth of e-commerce, especially in the physical goods sector. Ghana's score of 48.8 places it in 85th position in the world, well above the African average of 30 and within the top ten African economies - above Kenya and Uganda but below Nigeria and South Africa. Encouragingly, the index value for Ghana improved by 7.6 points in 2018, or by 18 percent year on year.

Linked to this, and as observed in other parts of the continent, the presence of local and international digital platforms is growing. Research conducted by insight2impact in 2018<sup>18</sup> indicates that there were a total of 62 digital commerce platforms active in Ghana, of which 31 were of African origin. Figure 3.1 below shows that rental platforms (such as Airbnb and 9Flats.com) and freelancing platforms (such as 15Ghana and Fiverr) are the most prevalent categories.

**Figure 3.1:** Types of digital commerce platforms active in Ghana



Source: Data obtained from i2i database, 2018, Total=74

With the exception of international platforms such as Uber and Jumia, the majority of Ghanaian platforms do not provide payment processing facilities to their contractors, as the service/ goods delivery and subsequent payment are often done offline. While there has been considerable interest in entry to digital commerce by local players, it was clear from interviews with existing platforms and platform enablers that there is a high degree of fragmentation in the local sector. There are also emerging signs of business model stress. In addition, digital commerce entrepreneurs cited other

barriers they encountered, for example, how they were forced to use international courier services to deliver their goods even locally owing to the lack of working application programming interfaces (APIs) for the national postal service, Ghana Post.

Several new government policies that are currently under development will affect the environment for digital commerce: the Ministry of Trade and Industry (MoTI) plans to publish a draft an e-commerce policy in 2019, and the Ministry of Finance has been working on a policy regarding the taxation of e-commerce (discussed further in Section 5).

In these and other policy areas, the digital platform sector will have to engage and find its voice. The technology sector across Africa is becoming more organized and vocal in advocating for its needs. In May 2018 African tech innovation hubs, including hubs in Ghana, published the Africa Innovation Policy Manifesto (v1.2),<sup>19</sup> which called on governments across Africa to undertake a range of measures to support innovation. These included the need to create an environment - in internet infrastructure, favorable taxation rates and financing - that allows micro and small enterprises (MSEs) to survive and thrive. However, the interests of the organized private sector may not always coincide with the interests of emerging associations of iWorkers. For now, the scoring of this condition comes out at mid-range.

**Digital commerce platforms** are active and growing.

3

## 4. Policy and institutional issues

### 4.1 Employment laws and policy

Employment law and practice define the two main boundaries between the quadrants in the landscape of work shown earlier in Figure 2.2.

- **Between employment and self-employment:** By allowing for diverse forms of self-employment and providing clarity so that self-employment is not deemed to be employment arbitrarily or retrospectively, and by ensuring that workers are not misclassified in ways which lead to abuse as self-employed for the employer's perspective.
- **Between formal and informal employment:** By reducing the administrative burdens of registration and reporting associated with formalization and by imposing no unreasonable additional requirements as a result of formalization.

#### Self-employment

The boundary between employees and self-employed *independent contractors*<sup>20</sup> is well established in Ghana. Case law has set out three commonly used tests for classifying the types of work:

- **Control test:** Whether the worker, in the performance of his services, is subject to a sufficient degree of control by the one engaging his services in order to make that other person his employer.

- **Integration test:** Examines the level of integration of the services provided by the worker into the business of the person engaging his services in order to determine whether or not he is an employee.
- **Remuneration test:** The nature of remuneration (wages vs. fees) provided to the worker may also be indicative of whether the relationship is an employment relationship or whether the worker is a self-employed person.

These tests are generally applied cumulatively, although the courts have also held that the weight to be attached to each test may vary on a case-by-case basis; in recent case law, more emphasis has been placed on the control test. The burden of proof is on the person who makes the allegation of misclassification, and this is often the alleged employee/ *independent contractor*. To date, misclassification cases have primarily been brought in the construction industry.

Current digital commerce platforms treat the sellers/ e-lancers/ drivers using their platforms as self-employed *independent contractors*, and there have been no challenges to date regarding this classification. Further, the platforms do not verify whether the individual has actually “formalized” himself or herself as a registered self-employed person; they are mainly interested, via their online onboarding process, to ensure that the services or products sold are not fraudulent or counterfeit. There is currently no government policy on platform workers, although the MoTI has signaled its intent to issue a general e-commerce policy in mid-2019 that may touch on this.

### Legal formalization

Ghana provides a range of legal structures under which self-employed people can trade. Self-employed persons can either register as sole proprietors, which is a legal entity in its own right,<sup>21</sup> or they can simply register their business name with the Registrar of Companies online for GH¢50 (around US\$10). If they decide to trade under their own name, even this registration is not necessary.

Sole proprietors receive legal benefits from legal registration, including (i) acknowledgement as a legitimate business, (ii) possession of a certificate issued by the Registrar General that can be used to get a business loan, (iii) ability to pay social security contributions for any employees, and (iv) limitation of liability to the person who is the sole proprietor (although this liability is unlimited with regard to that person, as it covers that person's personal assets). For those who register only their business name, the business name registration can be used by institutions such as banks to operate accounts for such businesses, and registration prevents the subsequent registration of another business with the same business name. These benefits are not negligible in the long term, as they add legitimacy to the individuals' overall business activity, thereby reassuring contractual counterparties. In combination with a tax registration, discussed in the next section, they can support the expansion of business activities through access to bank accounts, loan products, and other financial services.

Formal employment contracts must comply with labor law. Ghana's Labor Act 2003<sup>22</sup> requires employers to provide certain benefits to employees, including a minimum wage, a 40-hour week, overtime pay, holidays, sickness pay, and maternity leave. Employers must also deduct social security contributions (both pension and health insurance) from employees' pay checks, and they must contribute directly as well. Employers must also deduct an employee's income tax at source (PAYE).



Ghanaian law and practice is therefore fairly clear on the situation of self-employed people. It also provides a clear framework for the formalization of self-employment, and it does not appear to restrict or limit self-employment or contract work unduly. This is the basis of the higher than average score awarded to this set of conditions.

## 4.2. International trade policy

In a relatively small economy like Ghana, some categories of iWorkers will benefit from access to international markets for their goods and services. However, even iWorkers who sell products or services domestically may be affected by trade policies that allow international firms to enter the domestic market or to import goods for sale there.

New trade agreements increasingly include provisions on e-commerce or digital trade. Twenty-seven percent of all trade agreements notified to the World Trade Organization (WTO) since 2003 have contained such provisions.<sup>23</sup> These provisions can involve obligations on signatories to change legislation to recognize e-signatures in contracts, to prohibit policies that require data to be stored on local servers, or to open up digital infrastructure markets to foreign investors. In turn, this can affect the conduciveness of the legal environment for digital commerce platforms to develop (iWork enablement condition number 6).

The most important current negotiations which may affect the future of work in Ghana are the plurilateral negotiations between a subset of 76 WTO members and the African Continental Free Trade Area (AfCFTA) negotiations. There is as yet no certainty about the outcome of these negotiations: Ghana is currently not a member of the WTO (although it is facing pressure to join), while the AfCFTA does not yet have a mandate to negotiate e-commerce provisions (although one may develop). Even if Ghana does not sign up to the WTO plurilateral, it could nevertheless be affected by the extra-territorial implications of treaties negotiated without it. For instance, the EU General Data Protection Regulation creates a data protection regime that applies to all firms which are not members of the EU but which want to use the personal data of EU citizens. The WTO plurilateral could likewise impose extra-territorial obligations on Ghanaian businesses.

Beyond these treaties, digital commerce in Ghana is more likely to be affected by trade frameworks which in themselves do not directly change laws and regulations but which influence their adoption and shape. The most important frameworks under development are the Comprehensive AU Digital Trade and Digital Economy Development Strategy and developments in the OECD Base Erosion and Profit Shifting (BEPS) Actions. We discuss each in turn below.

The AU Strategy was mandated by the 34th Ordinary Session of the Executive Council of the African Union (AU) with the expectation that it will be adopted by the AU summit in February 2020. It would provide a roadmap for AU member states like Ghana to “fully benefit from the fourth industrial revolution”. Though the strategy intends to influence the development of digital policy in AU member countries and may thereby affect the environment for iWork, in practice not all AU initiatives are adopted and implemented consistently at country level.

The OECD BEPS Actions is a framework for the development of taxation policy, and since emerging taxation issues of the digital economy constitute an area of focus, this will affect iWork enablement condition regarding taxation. Analysis within this framework is likely to inform changes to global taxation policy for international digital commerce platforms. As digital business models increasingly change, this will shape where and how taxable profit can be created and registered. For instance, South Africa amended its Value-add Tax (VAT) Act in 2014 to better capture the profits of foreign digital suppliers by requiring suppliers of e-commerce services to register as VAT vendors for output tax if their turnover in South Africa exceeds the equivalent of approximately US\$3,500.

Ghana's involvement in international trade negotiations is government-led: representatives from various economic ministries, departments, and agencies typically meet to identify negotiating interests, and then the MoTI and the Ghanaian delegates to the WTO lead in the negotiations. In all these international processes it is at least possible for the Ghanaian government agencies involved to engage more with affected domestic stakeholders, so that the implications are better understood and may influence the country's negotiating position. Ghana's scope to negotiate independently for major changes is likely limited. However, the process of engagement may also help identify areas where Ghanaian digital commerce providers may have a comparative advantage as a result of the treaties or frameworks - for example, Ghana already has in place a data protection law and framework, which may make it easier for domestic providers to process offshore personal data from other places.

### 4.3 Other legal and policy issues affecting digital commerce

In the area of digital law, Ghanaian law already addresses several important areas, notably the Electronic Transactions Act (2007),<sup>24</sup> which covers e-transactions, digital consumer protection, and cybercrime, as well as the Data Protection Act (2012).<sup>25</sup> While Ghana is well positioned among the most advanced African countries in terms of digital legislation on the books, in practice the implementation of these laws is patchy.<sup>26</sup>

There do not seem to be any legal issues with the validity of online contracts and the use of digital signatures in Ghana, although the disclosure and data protection requirements for online sellers/ service providers can be onerous if the platform does not facilitate this disclosure. For example, online sellers/ service providers, pursuant to the Electronic Transactions Act of 2007, are required to provide a range of information to the customer to ensure the validity of the online contract. Further, all data controllers/ processors are required to register with the Data Protection Commission prior to the collection and processing of personal data in Ghana, which will likely apply to online sellers and service providers which process and/or retain clients' personal data.

In addition to these laws Ghana also has policies in place that aim to boost entrepreneurship, which could benefit certain types of iWorkers. For example, in August 2018 the Ghanaian government launched its National Entrepreneurship and Innovation Plan (NEIP), a multi-pronged approach aimed at creating a conducive and business-friendly environment to stimulate enterprise activities and provide integrated national support for startups and small businesses, which will in turn generate employment for the youth of Ghana. The government has invested about GH¢10 million, and the NEIP has now also received funding from the World Bank.

The **legal and institutional environment** is clear with respect to employment digital contracting, and open to flexible work forms with one or more online source.

3.4

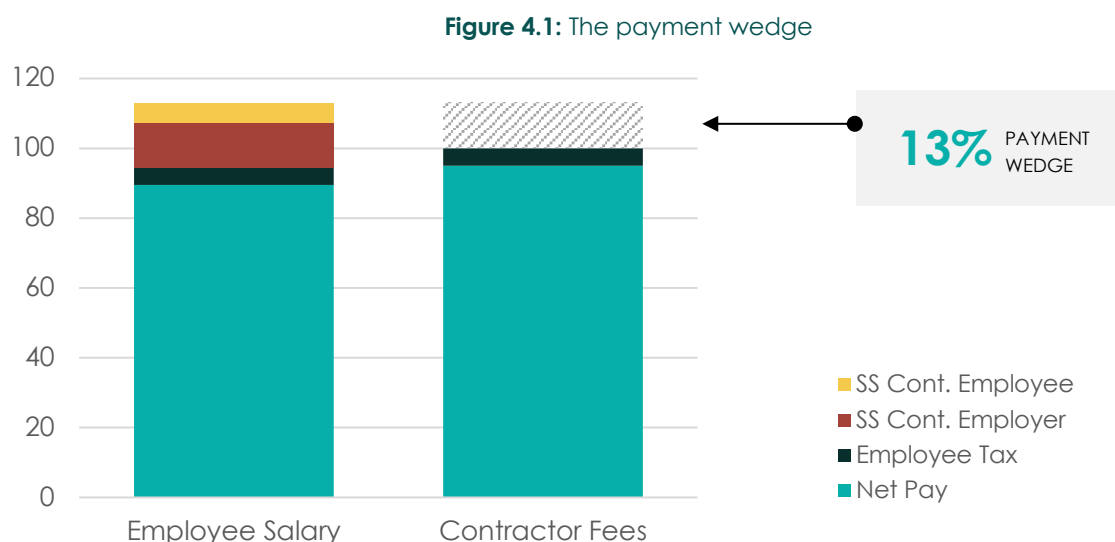
#### 4.4 Taxation and social benefits

Like employment legislation, taxation policy and legislation also have an important effect on the incentives to employ or contract, and to be employed or self-employed.

All individuals generating income from business are required to register with the Ghana Revenue Authority (GRA), regardless of their legal form. They are also required to charge VAT if their sales reach GH¢120,000 (around US\$23,000) per year and if the service/ product is not exempt from VAT.<sup>27</sup>

The requirement to register and then file and pay income tax and VAT can place a considerable administrative burden on self-employed people. However, following the roll-out of the Integrated Tax Application and Preparation System (iTaPS) platform by the GRA in April 2019 individuals can now declare and pay their income tax online, which streamlines the process. Currently, digital commerce platforms do not report to the GRA on payments to their iWorkers or make any deductions on their behalf, although this can be a means of easing the administrative burden of formalization for self-employed people.

The rate of income tax for self-employed workers and employees is the same, and therefore the only difference is who is required to make the payment to the GRA. However, under the Pension Act employers are also required to pay an additional 13% of an employee's gross monthly salary into the Social Security scheme for the benefit of the employee. This payment “wedge” may, all else being equal, lead to employers favoring the hiring of *independent contractors*. This wedge is depicted in Figure 4.1 below.



For the self-employed, Social Security contributions are optional. However, self-employed people have an incentive to make such contributions, because a higher proportion of their contributions to retirement funds (up to 35% of their declared income) is regarded as deductible.

While the income tax rates for employed and self-employed people are the same, there are special tax rates for registered small businesses (including sole proprietors) as an incentive to register: under the Income Tax Act,<sup>28</sup> a resident individual may pay a presumptive tax at a rate of up to 3 per cent on his/her business revenue (versus the 25 percent tax rate being paid by corporate entities) where the income is from a business which is funded exclusively from a source in Ghana, and:

- i. the average turnover of the business (calculated for three years) is not more than GH¢120,000 (approximately US\$22,339); and
- ii. the individual is not required to be registered for VAT.

In addition, a recent amendment to the Income Tax (Amendment) (No. 2) 2017 Act 956<sup>29</sup> offers the additional incentive of a tax holiday for five years to young entrepreneurs below the age of 35 in certain sectors, including manufacturing and information and communications technology (ITC). This provision could become a useful benefit for on-ramping young iWorkers, although it is not widely understood or publicized at present.

Finally, there is also an implicit penalty for contractors if they fail to register for tax, as all tax-registered entities must withhold 7.5 percent of the value of payment for services to individual contractors. This withholding fee applies whether or not the contractor is registered for tax, but those who are registered can offset the amounts withheld against tax due, whereas for the rest withholding functions as a form of income taxation at a higher rate than the lowest personal tax bracket (5 percent).

The provisions of the Ghanaian tax code and the requirement to make contributory social insurance and social security payments are therefore clear, and there are even benefits for self-employed people and small businesses, especially if registered. The Ghanaian tax framework generally incentivizes the emergence of compliant iWorkers. For these reasons, the country's score in this category is also above average at 3.6. However, the level of incentives may not be sufficient to overcome the widespread reticence to register for tax, as shown in the high proportion of informal employment.

The **tax code** is clear, and the tax burden does not disincentivize self-employment.

3.6

Also, as noted earlier, the Ministry of Finance is currently developing a policy on how to tax e-commerce, focusing on the sellers/ workers on the platforms and their tax liability. The GRA may require and receive real-time information from commerce platforms under this policy. These policies may change the position in future and require careful monitoring and coordination to achieve the overall intent of public policy.

## 5. Recommendations

Stakeholders at the workshop held in Accra identified a number of areas in which government agencies, the private sector, and international organizations could help to realize the potential for iWork to provide livelihoods to the growing number of people (and especially young people) in Ghana. The recommendations are grouped into short-term and longer-term time frames, based in part on whether there is a clearly identified party to take responsibility. In both categories, further research would be needed to refine and prioritize the recommendations in the light of other activities underway.

### 5.1 Short term

#### 5.1.1 For **government agencies**

- *General:* With a wide-ranging and growing set of digital government initiatives underway in Ghana, there remains a pressing need for government agencies to publicize more widely the programs that are available and to consult with the affected parties over new draft policies in areas such as e-commerce and e-commerce taxation, which are pending. This process would reduce uncertainties and enable new issues to be identified and prioritized for further policy action.
- *Bank of Ghana:* To address the need for financial APIs to link financial product providers to platforms. Bank of Ghana could convene a public-private working group to provide standards for APIs which ensure that the APIs function effectively and safely for the intended purpose.
- *Ghana Statistical Services:* Incorporate more questions about alternative work into future labor force surveys, which would enable the size of this growing segment to be tracked and be better understood over time.
- *Ministry of Trade and Industry:* Consider negotiating within the framework of the Economic Community of West African States (ECOWAS) and AfCFTA the introduction of protocols to ease cross-border regulatory requirements, including for financial passporting; mutually recognized personal identifications; mutually recognized business registrations; mutual recognition of data protection regimes; and a more harmonized general regulatory environment with a view to allowing regional platforms to scale more easily.
- *Ministry of Employment and Labor Relations:* Encourage the emergence of associations which can articulate and represent the interests of iWorkers, whether through existing bodies or linked to them, such as the Ghana Artisan's Association or the Trades Union Congress.

#### 5.1.2 For the **private digital commerce sector**

- Develop and articulate scenarios about how to respond to different possible outcomes for the platform economy in Ghana, e.g., the entry into Ghana of a large international platform like Alibaba, so that these outcomes could help shape the government's approach to negotiating with potential entrants and within international commerce frameworks.
- Formulate a strategy and choose a vehicle for articulating interests to government, both to engage in the formation and shaping of government policy and regulations and to inform government negotiating positions in international processes. Better industry representation can assist with defining services needed by the digital commerce ecosystem, including, among others, advocating to government logistics licensing that is more appropriate for e-commerce delivery services, and greater interoperability with government services/ platforms, and to banks and other sectors for open APIs and more accessible data.

- Articulate more clearly the interests of the private sector in international trade policies and frameworks through local think-tanks, which may hold forums on trade issues or undertake research on behalf of interest groups, or other channels to capture the attention of the MoTI, for example through ministry business platforms or requesting meetings with the MoTI.
- Pursue and test ways for offering shared benefits to iWorkers on current platforms even while larger sectoral visions such as those outlined below take shape.

### 5.1.3 International development organizations

- Catalyze the local conversation in Ghana to get traction for ideas seen in other areas, such as digital payments.
- Support research landscaping and monitoring the development of iWork, in advance of and alongside government statistical approaches (discussed above).
- Support experimentation towards the longer-term concept (outlined below).
- Support a pan-regional entrepreneurial fellowship and professional services delivery network that would facilitate the scaling of digital commerce platforms.

## 5.2 Longer-term concept for iWork development

Participants identified a longer-term conceptual architecture in which one or more digital commerce platforms could link iWorkers with clients that pay for their services, whether in the government or in the business or development sector. As shown in Figure 5.1 below, the digital commerce platforms would provide core services, including search and matching, payment and administration functions, as well as online dispute-resolution to ensure fairness and recourse for both parties. However, within specific sectors requiring specific skill sets, specific entities could serve as development catalysts; these could develop online qualification standards by which to certify the training of iWorkers and acquire iWorkers and support them in their engagement with the platform. While various public and private entities currently play a role in sectoral training, the key difference here is linking the credentialing process into a means by which newly trained workers could be recruited and paid for tasks, creating a livelihood on a piecework basis. Over time, iWorkers could build their verifiable reputations for successfully completing work in ways which could also qualify them to receive additional benefits, including access to subsidies or loans for further training. In this way, iWork becomes not only an on-ramp to work but also a means of building a livelihood over time.

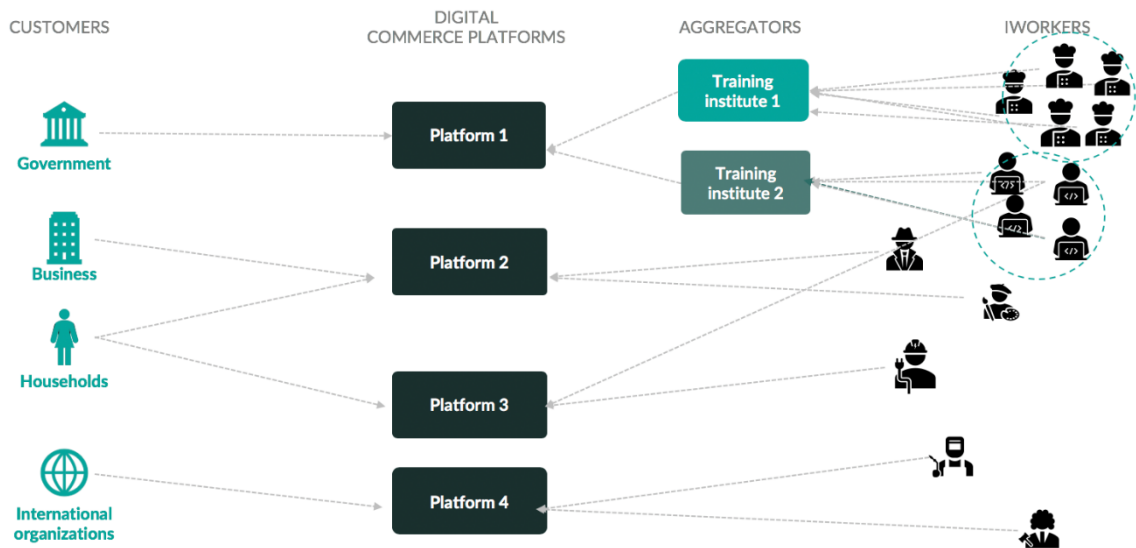
Sectors which may be ripe for this approach to promoting iWork include:

- Agricultural extension
- Healthcare sector
- After-school education
- On-site assurance (e.g. mystery shopping to test customer service)
- Entertainment and advertising.

To implement this approach, public-private partnerships would likely be required. These would need political support from the Vice President's office. However, even getting to the stage of seeking this support would require initial work to prepare the ground in a chosen sector and make the case. There was extensive discussion over whether this role could be played by local think-tanks, by entities associated with major business membership organizations (e.g. the Ghana National Chamber of Commerce or the Private Enterprise Federation), by the Ghana Chamber of Youth Entrepreneurs or

the Ghana Chamber of Technology, or by local consultancies operating in an open-ended, problem-solving way. In the past, the latter group has seen some success with setting up and managing donor projects. However, there needs to be a business model for this initial engagement, as well as sustained engagement by a suitable ecosystem coordinator to realize this vision over time.

Figure 5.1: The future architecture of aggregation for digital commerce



## 6. Conclusions

There are already iWorkers in Ghana today, and they are highly likely to grow as a proportion of the labor force over time. The Ghanaian legal and policy environment generally does not impede this development, but nor does it currently do much to encourage the emergence of these newer forms of work in a concerted way.

Because “formality” can also be episodic and opportunistic, the old perception that progress consists of a linear movement from less formality to more formality is increasingly being challenged by evidence on the ground. Laws and regulations affecting work may need to conform more to the emerging reality of digital commerce, rather than commerce conforming to the ideals implied by older laws. However, iWork has the potential to help satisfy legal requirements through enabling easy access to the required registrations and by providing the incentives to do so.

Table 1 below summarizes the results of scoring shown in Annex A for each of the main enabling conditions. The absolute values on a scale of 1 (not enabling at all) to 5 (highly enabling) matter less than the relative ordering of the areas in so far as lower scores point to more binding constraints for attention. This table suggests that while more can be done by government agencies to clarify,



communicate, and ease the paths to formalization by emergent iWorkers (through policy and legal conditions 3 and 4), the biggest constraint may be the absence so far of approaches which provide a career path to prompt and sustain the interest of potential iWorkers. Addressing this would require the flexibility of digital commerce platforms to be integrated with skills development approaches. As a result, iWorkers' income may grow over time, in line with their reputation, skills and productivity. These are the potential fruits of digital labor which many informal-sector workers are currently being denied.

**Table 1:** Summary of iWorker diagnostic scores for Ghana

1. <b>Internet access</b> is widespread, reliable, and affordable for iWorkers.	3
2. <b>iWorkers can pay and receive</b> online micropayments securely, quickly, and cheaply.	3
3. The <b>legal environment</b> is clear with respect to digital contracts, and open to flexible work forms with one or more online sources.	3.4
4. The <b>tax code</b> is clear, and the tax burden does not disincentivize self-employment.	3.6
5. <b>iWorkers</b> perceive clear <b>benefits</b> from formalization and receive actual benefits.	2
6. <b>Digital commerce platforms</b> which connect iWorkers to work are active and growing.	3

See Annex A for detail.



## Annex A: iWork Enablement Score

This is the underlying framework which has supported the overall scoring described in the text. Note that the weighting in this initial scorecard is uniform across the main factors. The scoring is generally calibrated to African standards where these are available, on a scale of 1 = very low enablement to 5 = very high enablement, with a score of 3 implying around the African average.

#	Category/ factor	Weighting	Scoring	Sub-score	Overall category score
<b>1</b>	<b>Internet access</b>	<b>16.7%</b>			<b>3.0</b>
1.1	Widespread	33%	Available throughout country: 5; in urban areas: 3; available: 1	3	
1.2	Reliable	33%	In areas where available: no problems reported with connection: 5; some problems: 3; major problems: 1	3	
1.3	Affordable	33%	Much cheaper than African average: 5; in line with African average: 3; much more expensive: 1	3	

<b>2</b>	<b>Digital payments</b>	<b>16.7%</b>			<b>3.0</b>
2.1	Secure digital payments available	25%	% of adults making digital payments in line with African norm: 3; higher: >3; lower: below 3	3	
2.2	Can receive digitally from local payers	25%	P2M and P2P functionality is possible on all MM: 3; interoperable payments possible: 4 or 5; low P2M and P2P functionality in standard MM: 1 or 2	4	
2.3	Can receive digital from international clients	25%	Possible from all major cards and mobile money: 5; mobile money only with international linkages: 3; not possible: 1	2	
2.4	Cost of receipt and payment is low	25%	Merchant fees charged for digital in line with African norms: 3; cheaper: 4,5; more expensive: 1,2	3	

<b>3</b>	<b>Policy and legal environment</b>	<b>16.7%</b>			<b>3.4</b>
3.1	Ghanaian law is enabling for contract work	20%	Contract work prohibited: 1; contract work is legal but many difficulties to undertake: 2; contract work is legal but some difficulties to	5	

			undertake: 3; contract work is legal and few difficulties to undertake: 4; contract work is legal and easy to undertake: 5		
3.2	Employment law is clear about the boundaries between employment and contracting	20%	No clear boundaries/ not dealt with by legal framework: 1; some rules exist but unclear as to application: 2; many rules exist but application is somewhat unclear: 3; main rules are clear but some ambiguity at fringes: 4; distinction is very clear: 5	4	
3.3	Contractual environment is enabling for online transactions	20%	Contracts for online transactions prohibited: 1; contracts for online transactions are legal but many difficulties to enforce/ ensure validity: 2; contracts for online transactions are legal but some difficulties to enforce/ ensure validity: 3; contracts for online transactions legal and few difficulties to enforce/ ensure validity: 4; on-line work is legal and easy to enforce/ ensure validity: 5	4	
3.4	International trade law & policy enables cross border digital work	20%	Discourages cross border digital work: 1; not clear: 2; neither encourages nor discourages: 3; encourages cross-border digital trade: 4; encourages and is clear on cross border: 5	3	
3.5	The process of drafting policy and law includes consultation with affected sectors	20%	No: 1; limited: 2; some: 3; solicited and invited: 4; solicited, invited and responded to: 5	2	

4	Tax environment	16.7%			3.6
4.1	The tax code and social contribution rules are clear in respect of self-employment	33%	No clear boundaries/ not dealt with by legal framework: 1; some rules exist but unclear as to application: 2; many rules exist but application is somewhat unclear: 3; main rules are clear but some ambiguity at fringes: 4; distinction is very clear: 5	5	
4.2	The tax code and social contribution rules incentivize the proper classification of workers	33%	The tax code and social contributions rules greatly incentivize misclassification: 1; the tax code and/or social contributions rules incentivize misclassification: 2; the tax code and social contributions rules have no effect on classification: 3; the tax code and/or social contributions incentivize proper classification: 4; the tax code and/or social contributions greatly incentivize proper classification: 5	2	

4.3	The tax code and social contribution rules incentivize self-employment	33%	The tax code and social contributions rules greatly disincentivize self-employment: 1; the tax code and/or social contributions rules disincentivize self-employment: 2; the tax code and social contributions rules have no effect on self-employment: 3; the tax code and/or social contributions rules incentivize self-employment: 4; the tax code and/or social contributions rules greatly incentivize self-employment: 5	4	
-----	--	-----	---	---	--

5	iWorker perception and reality of benefits	16.7%			2.0
5.1	iWorkers aware of potential for digital work	25%	Widespread awareness among candidate groups of opportunity: 5; no awareness at all: 1; some awareness in niches: 3	2	
5.2	iWorkers perceive benefits	25%	A high proportion of potential iWorkers are able to name benefits and find them appealing: 5; scaled down for proportional awareness to 1=none or very low proportional can name benefits	2	
5.3	iWorkers receive portable benefits from independent work	25%	Portable benefits widely available: 5; some platforms provide: 3; none provide: 1	2	
5.4	iWorkers receive training on digital commerce skills and tools	25%	None: 1; limited: 2; some available: 3; commonly available: 4; available and subsidized: 5	2	

6	Digital commerce platforms	16.7%			3.0
6.1	6.1 Diversity of types	25%	Limited local only; number in each category local: 2; local and international are present; local and international across most categories: 4 or 5	3	
6.2	6.2 Platforms are growing	25%	Total number of platforms lower now than last year: 1; about the same: 2; somewhat higher: 3; much higher: 5	3	
6.3	6.3 Platform barriers encountered to growth	25%	Platforms encounter: numerous material barriers to their operation and expansion: 1; some material barriers: 3; few barriers 4; no barriers: 5	2	

6.4	6.4 E-commerce readiness index (UNCTAD)	25%	Below African average: 2; average: 3; above average 4; substantially above average	4	
	<b>OVERALL WEIGHTED i-WORKER SCORE</b>	100%			3.0

## Endnotes

- 
- <sup>1</sup> Calculations to obtain these numbers are based on *ILO Labour Market Projections* (Geneva: International Labour Organization, November 2018). Accessed July 3, 2019.
- <sup>2</sup> BFA Global, *Digital Commerce and Youth Employment in Africa*, February 2019. Accessed May 10, 2019. Available [here](#).
- <sup>3</sup> Calculations to obtain these numbers are based on *ILO Labour Market Projections* (Geneva: International Labour Organization, May 2018). Accessed January 3, 2019.
- <sup>4</sup> Baah-Boateng, William, "Jobless Growth Is Ghana's Biggest Youth Challenge." African Center for Economic Transformation (ACET), 2018. Accessed May 10, 2019. [Available here](#).
- <sup>5</sup> African Development Bank Group; Asian Development Bank; European Bank for Reconstruction and Development and Inter-American Development Bank, *The Future of Work: Regional Perspectives* (Washington, DC: Inter-American Development Bank, May 2018). Accessed July 3, 2019. Available [here](#).
- <sup>6</sup> See examples available via the UNCTAD site [here](#).
- <sup>7</sup> Wallenstein, Judith; de Chalendar, Alice; Reeves, Martin and Allison Bailey, *The New Freelancers: Tapping Talent in the Gig Economy* (Boston: Boston Consulting Group, 2019). Available [here](#).
- <sup>8</sup> Onkokame, Mothobi; Schoentgen, Aude and Alison Gillwald, *What Is the State of Micro-work in Africa? A View from Seven Countries* (Cape Town: Research ICT Africa, 2018). Accessed May 10, 2019. Available [here](#).
- <sup>9</sup> Schmidt, Florian A., *Digital labour markets in the platform economy* (Bonn: Friedrich-Ebert Stiftung, 2016).
- <sup>10</sup> Gachoka, Anne, "How Small Merchants Use Social Media to Sell Online in Africa," February 06, 2019. Accessed July 03, 2019. Available [here](#).
- <sup>11</sup> Onkokame, Mothobi; Schoentgen, Aude and Alison Gillwald, *What Is the State of Micro-work in Africa? A View from Seven Countries* (Cape Town: Research ICT Africa, 2018). Accessed May 10, 2019. Available [here](#).
- <sup>12</sup> Baah-Boateng, William, "Jobless Growth Is Ghana's Biggest Youth Challenge," African Center for Economic Transformation (ACET), 2018. Accessed May 10, 2019. [Available here](#).
- <sup>13</sup> For a summary of the implications of skill biases in the digital economy, see Banga, Karishma and Dirk Willem te Velde, "Digitalisation and the Future of Manufacturing in Africa," SET Briefing Paper, March 2018.
- <sup>14</sup> Onkokame, Mothobi; Schoentgen, Aude and Alison Gillwald, *What Is the State of Micro-work in Africa? A View from Seven Countries* (Cape Town: Research ICT Africa, 2018). Accessed May 10, 2019. Available [here](#).
- <sup>15</sup> Alliance for Affordable Internet (A4AI), "Ghana Affordability Reporting Highlights," 2018. Accessed May 10, 2019. Available [here](#).
- <sup>16</sup> Demircug-Kunt, Asli; Klapper, Leora; Singer, Dorothe; Ansar, Saniya and Jake Hess, *Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution* (Washington, DC: World Bank, 2018). Available [here](#).
- <sup>17</sup> World Bank, *Ghana Doing Business Report* (Washington, DC: World Bank, 2019). Available [here](#).
- <sup>18</sup> Insights2impacts (i2i), "Africa's Digital Platforms Database," Digital Platforms Database-Ghana. Accessed May 10, 2019. Available [here](#).
- <sup>19</sup> Innovation for Policy Alliance, "Africa Innovation Policy Manifesto V1.2," May 6, 2018. Accessed July 2, 2019. Available [here](#).
- <sup>20</sup> We distinguish independent contractor as a category based on the definition: "an individual is an independent contractor if the payer has the right to control or direct only the result of the work and not what will be done and how it will be done. The earnings of a person who is working as an independent contractor are subject to Self-Employment Tax. An independent contractor is self-employed [sic]." IRS, "Independent contractor defined," <https://www.irs.gov/businesses/small-businesses-self-employed/independent-contractor-defined>.
- <sup>21</sup> Sole proprietorship is the easiest form of business ownership in Ghana as it does not require a large amount of capital, less paperwork is required in the registration and commencement of the business, and it is easier to dissolve.
- <sup>22</sup> See Ghana Labour Act, 2003. Available [here](#).
- <sup>23</sup> Monteiro, J-A., Teh, R., *Provisions on Electronic Commerce in Regional Trade Agreements*. WTO Staff Working Paper, N. ERSD-2017-11. (Geneva: World Trade Organization, 2017).
- <sup>24</sup> See Electronic Transactions Act, 2007. Available [here](#).
- <sup>25</sup> See Data Protection Act, 2012. Available [here](#).
- <sup>26</sup> Ebrahimi Darsinouei, A., *Understanding E-Commerce Issues in Trade Agreements: A development Perspective Towards MC11 and Beyond* (Geneva: CUTS International, 2017).
- <sup>27</sup> There is a VAT exemption for transport as per First Schedule of the VAT Act, so private car drivers (such as Uber drivers) are exempted from VAT in all cases.
- <sup>28</sup> See Ghana Income Tax Act, 2015. Available [here](#).
- <sup>29</sup> See Income Tax (Amendment) (No. 2), 2017 Act 956. Available [here](#).