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Rwandan Jobs in the Digital Era

Scenarios for the Future of IT-enabled Services

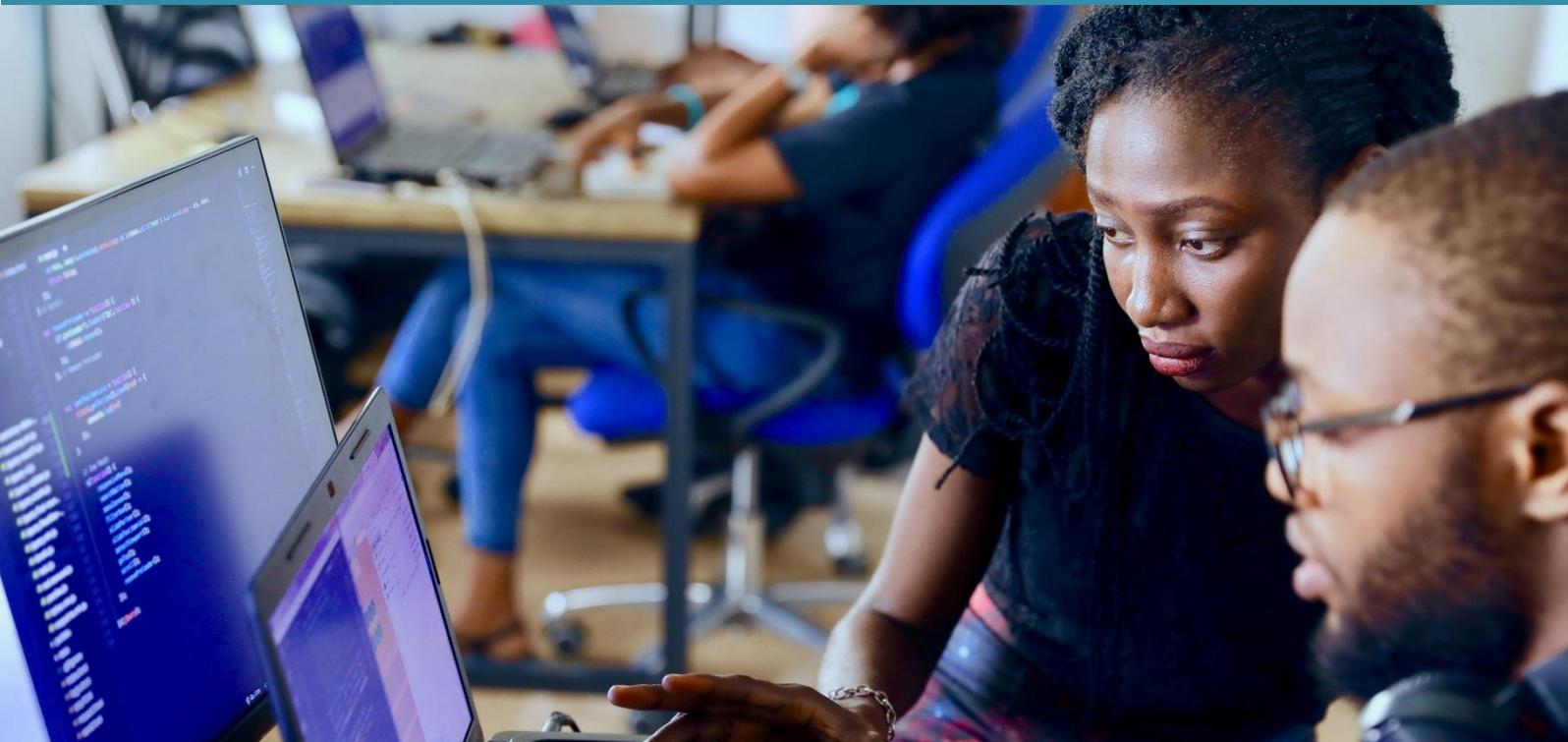


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Abbreviations

AMT	Amazon Mechanical Turk
BPESA	Business Process Enabling South Africa
BPM	Business Process Management
BPO	Business Process Outsourcing
CRM	Customer Relation Management
CX	Customer Experience
CXM	Customer Experience Management
DSAA	Digital Skills Accelerator Africa
EPZ	Export Processing Zone
FGDs	Focus Group Discussions
GBS	Global Business Services
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GoR	Government of Rwanda
GPN	Global Production Network
GPS	Global Positioning System
GVCs	Global Value Chains
ICT	Information and Communication Technology
ISSP	Impact Sourcing Service Provider
IT	Information Technology
ITES	IT-enabled Services
ITO	Information Technology Outsourcing
KPO	Knowledge Process Outsourcing
MINICT	(Rwanda) Ministry of ICT and Innovation
NISR	National Institute of Statistics of Rwanda
PAYE	Pay As You Earn (Income Tax)
RDB	Rwanda Development Board
RISA	Rwanda Information Society Authority
RPA	Robotic Process Automation
RURA	Rwanda Utilities Regulatory Authority
RwF	Rwandan Franc
STEM	Science, Technology, Engineering, and Mathematics
TULA	The Ubuntu Leadership Academy
USD	United States Dollar
VAT	Value Added Tax
VPN	Virtual Private Network
WFH	Work from Home

Executive Summary

As more job seekers enter the Rwandan labour market each year, the jobs they find are increasingly shaped by digital technologies. This report explores employment opportunities in emerging digital activities for young Rwandans. To sharpen the report's focus, we followed three guiding questions: To make the report economically useful, we asked which sectors are promising for large-scale and future-oriented job-creation amidst the age of technological change; to make the report empirically tangible, we asked in which sectors these technological changes have already had a measurable impact on workers; and to align the report with the direction of Rwanda's goals, we asked what is aspired to in Rwanda's Vision 2050 ([MINECOFIN, 2020](#)) – i.e., what future Rwandans want. Core aspects of Vision 2050 and its supporting documents are: growing the economy by 12% per annum until 2035 and using Information & Communication Technology (ICT) to spur urban innovation and productivity; bringing women more equitably into the workforce to better utilize both halves of the population; and turning its people into the country's biggest economic asset by making Rwanda a services-led economy, fully integrated into the global knowledge economy. On this basis, the report arrived at two services sectors, and came to be divided into two studies, one on domestic IT-enabled services, the other on export-oriented IT-enabled services.

Study 1 examines urban mobility, where the emergence of ride-hailing and delivery platforms are changing the ways cab drivers and motorcycle taxi riders work in Rwanda's capital, Kigali.

Study 2 examines global cloud services, where the emergence of digital labour platforms and Global Business Services (GBS) companies are opening new ways for Rwandan office workers to service global clients.

While the urban mobility sector remains male-dominated and is wrought with informality and worker insecurity, the GBS sector promises formal employment, gender equity, and an avenue for export-led growth via linkages to the global knowledge economy.

Study 1: Ride-Hailing and Delivery Platforms as Public Utilities – Transforming Employment in Rwanda's Urban Mobility Sector

Study 1 introduces two forms of place-based, IT-enabled services in the local urban context – ride-hailing taxi platforms and food delivery platforms. Globally, the literature on urban mobility platforms discusses positively how platforms like Uber facilitate more trade in services by reducing transaction costs, and discusses negatively how such platforms can crowd out local businesses and create new information asymmetries between themselves and local regulators and competitors. In the context of Rwanda's political economy, mobility platforms play a more constrained role. Rwandan authorities have long been skeptical of the informal and unruly moto taxi sector. And the Government of Rwanda (GoR) is currently experimenting with a public-private partnership model in which ride-hailing platforms are organized like public utilities. In its partnership with the selected platforms, the GoR has access to the data generated by these platforms, determines fare prices, sets the platform tariffs, and makes the use of these platforms mandatory for all cab drivers and motorcycle taxi riders. The main mobility platform is Yego Innovision Ltd. – Yego Moto for motorcycle taxis, and Yego Cab for taxicabs (a second taxicab platform is VW Move). Yego also started Yego Delivery and plans to expand this model into a future of Rwandan multi-service platforms, bringing passenger transport together with a host of other services – from delivery, to banking, to insurance, to home cleaning services. This study examines the ongoing transition to this mandatory, public-private partnership model and investigates how far along the path the Rwandan mobility sector is towards this positive scenario.

The study's primary research methods are interviews and focus group discussions (FDGs) with platform cab drivers, platform motorcycle taxi riders, and platform motorcycle delivery riders. Preliminary findings were validated in two full-day workshops with relevant stakeholders, including platform executives and GoR regulators.

The study finds that on their path towards the mandated public utility platforms, both taxicab drivers and moto taxi riders struggle with the transition. In Rwanda's tightly governed security regime, crime rates are so low that passengers and drivers are less concerned than elsewhere when engaging with strangers. Thus, even though the government-set platform tariffs are very low – between 8-13% of fare prices (compared to the 20-30% taken by private ride-hailing platforms elsewhere in the world) – Kigalians are quick to switch to illegal off-platform rides if the government-set fare prices slightly deviate from the going black-market rate for a given distance. If the platform fare prices are *high* (as was the case for taxicab fares at the time of our FDGs), passengers have a sufficient reason to ask for off-platform rides. If the platform fare prices are *low* (as was the case for moto taxi fares), cab drivers and moto riders have a sufficient reason to offer off-platform rides. Either way, the off-platform black market for passenger transport thrives. This puts platform drivers/riders in the unenviable position of either losing their fares to illegal competitors or breaking the rules themselves by transporting passengers off platform, thus risking hefty fines by the traffic police who are mandated to enforce the use of the public utility platforms.

As this shift coincided with the COVID-19 Pandemic and less passenger travel, a few moto riders also shifted away from working in passenger transport towards working for food delivery platforms, seen as a safe harbour in times of the pandemic. We accompanied some of these riders to understand their motivations, journeys, and personal results of switching from taxi to delivery app riding. The study finds that these delivery riders had made the switch in the hopes of more stable employment relations. Whilst moto taxi riders tend to earn more per ride by transporting passengers, they also have higher insurance costs and operate as independent entrepreneurs in a riskier day-to-day struggle for rides. Working for delivery platforms, by contrast, entails fewer expenses and more security as delivery riders receive steady orders and monthly pay checks from the platform company. Delivery riders, however, utter a different grievance: many claim to have made the switch to food delivery in the hopes of entering into formal employment with the platform. Monthly payments do arrive, and riders are subjected to regular working hours and reprimanded to work exclusively for one delivery platform, but none of our respondents had thus far received employment contracts. And none felt secure in their work arrangement, as they notice the platform bringing in waves of new riders and threatened to release veteran riders who demanded employment contracts, more flexibility, or other promised benefits.

Based on these findings, we develop simple scenarios for Rwanda's future of ride hailing and delivery platforms: in a failed take-off scenario, the government-steered pricing would not be responsive enough to changes in supply and demand, and the public-private partnership model of using platforms as public utilities would succumb to the informal competition. In the scenario of a narrow and unfair take-off, the mandatory platforms would win out over the illegal competition, but the cab drivers and moto riders would not benefit financially or be able to diversify their services. The data collected by the platform could also be used to surveil all taxi services in the city for illegitimate purposes, be this for economic or political motives. A full take-off scenario would entail giving workers fair and stable wages, social security benefits, and chances to generate more business in related services. A well-functioning multi-service platform could also bring more opportunities for women in the mobility, delivery, and mobile services sector. This could make the Rwandan experiment of a public-private partnership a model for reigning in mobility platforms across the world.

Policy recommendations for ride-hailing and delivery app services: As the mandatory use of the platforms rolls out, this study does not recommend harsher punishment of illegal and off platform service providers. This new model of a government-mandated public-private partnership in ride hailing can only be successful if it offers a better alternative to

both cab drivers /moto riders and their passengers. Flexibility in setting fare prices is crucial. If this proves too difficult for the regulators and the platform to deliver, cab drivers and moto riders will need to find alternative ways to earn a living. Positive incentives for early adopters and loyal platform drivers/riders could come as lowered taxes, insurance fees, or permit costs. Other amenities could be pursued that do not lead to foregone revenue (e.g., easing the recurring payment methods for platform workers through inbuilt savings schemes). In terms of worker rights, short of full employment contracts, the GoR regulator should clarify and articulate to platform providers which rights and duties come with arms-length quasi-employment contracts for platform drivers and riders. The worker organization of riders and protection of rider representatives seem to be in flux and could be better institutionalized. For data collection, transparency is important on how and when data is collected, stored, and used by the platform and/or the regulator for which purposes. The GoR should make this information publicly available, since this is not only an issue for cab drivers and moto riders, but also for their potential passenger. Concretely to enhance the chances of women workers in the mobility platform sector, international development partners could target their support to companies that are already invested in enhancing the plight of women (e.g., Kasha Inc).

Study II: Cloud-Based Digital Services – Online Labour Platforms & Exporting Global Business Services from Rwanda to the World

Study 2 examines two forms of cloud-based IT-enabled services: online platform work, also known as online freelancing; and classical, brick-and-mortar Global Business Services (GBS), also known as business process outsourcing (BPO). The types of services they provide differ slightly: online platform work consists mainly of non-customer facing back-office tasks, such as data entry, labelling, or transcription; while GBS work consists more in customer facing front-office work, such as answering customer queries. But online platforms specialized in front-office work have recently emerged, and classical GBS firms have always offered all forms of back-office work as well. The main difference between online platform work and GBS firm work thus lies in *how* workers provide these services – as individual freelancers on the platforms, and as stable employees in GBS firms.

In a short first section, we discuss online platform work in the African context, showing that, throughout the 2010s, global online labour platforms have grown rapidly in size (e.g., Upwork, Fiverr), and in number (by one count, more than 350 global online labour platforms exist; [Kässi et al., 2021](#)). But the numbers of African freelancers who earn steady incomes online are still small. Online platform workers tend to cluster in countries like India, Bangladesh, Pakistan, or the Philippines, which often already have sizable digital services sectors. Online work clusters thus tend to emerge in countries with large labour pools, spilling out of the GBS sector, as former GBS workers provide the platform tasks they previously performed as employees (Lehdonvirta et al., 2021). In Rwanda, where no online work cluster exists, and where the GBS sector is just in its infancy, we recommend that the Government of Rwanda (GoR) concentrate less on facilitating online platform work and more on the GBS sector, using Rwanda's business-friendly regulations and conducive infrastructure to attract GBS firms.

The bulk of Study 2 thus asks whether GBS can become an elevator sector for Rwanda, bringing more youths into decent, formal, export-oriented work, lifting these workers up the career ladder towards more complex tasks, and with them, lifting Rwanda's entire society up towards the aimed high-income status. Whether a GBS cluster will consist merely of temporary click-farms (with low salaries and no avenues for skills upgrading) or will become a permanent growth sector for catchup development will depend on different factors. A critical academic literature on the Indian and Filipino GBS (aka BPO) sectors has long lamented that this sector has in part consisted of 'digital sweatshops' with poor working

conditions, monotonous tasks, and few options for worker career development. Other observers found that the sector provides decent jobs that help workers advance the skills needed in the job market.

As the GBS sector changes and spreads to new regions, a straightforward empirical method is to ask current and former GBS workers how well they think their work has served them. For this, we conducted a case study of an Indian multinational that specializes in serving domestic telecoms companies from within several African countries. This firm is currently the largest contact centre in Rwanda. After several pilot interviews, we conducted FDGs with the firm's current workers, former workers, and managers (current and former). Our Findings were overall positive: respondents cherished their working conditions; saw ample room for upward mobility; and reiterated how the skills they developed, especially communication skills for difficult situations, had been crucial for their future work careers as well as tools for their personal lives and societal interactions. The one complaint uttered by all discussants was that their payment was rather low. As contact centre work has low entry barriers – allowing fresh graduates and even non-university graduates to gain access to formal white-collar work – the net remuneration ranges from USD 70 to USD 120 monthly for serving the domestic market in the local language, Kinyarwanda. These salaries are at the lower end, when comparable formal service jobs like cashier, receptionist, or bank teller (Right Seat, 2019). With the arrival of globally exporting GBS firms, entry-level salaries increase to between USD 150 and USD 300 monthly. According to our discussants, these incomes would be highly desirable, and according to our labour-market analysis, they would place the GBS workers among the top 20% and top 5% of Kigali's and Rwanda's wage earners respectively.

But in the age of the Fourth Industrial Revolution (Schwab, 2016), would these GBS workers be mere fodder for job automation, or would they have future-proof career trajectories? The global literature is divided on the prospects of the future of work amidst this technological upheaval. While some commentators had predicted that software like robotic process automation would by now have rendered most human contact centre agents obsolete, others predicted that agents would grow with the machines and would take on new and more productive tasks. Empirically, the GBS sector has experienced overall increases in demand for human-agent services before, during, and after the COVID-19 Pandemic. The GBS sector has thus diversified to new delivery locations, including in Africa, in search of workers. The industry insiders we interviewed all agreed that new technologies have thus far not led to net reductions in the human workforce. To the contrary, over the past five years, the GBS sector has seen a significant increase in the number of workers in India, the Philippines, but also in smaller delivery locations like Poland, South Africa, and Egypt. Based on our participatory observation over the past five years, the GBS sector's interest in expanding to new delivery locations in Sub-Saharan Africa has increased significantly.

In this light, we developed scenarios for cloud-based digital services. We asked GBS sector analysts to project how many jobs a Rwandan GBS cluster could create over the coming seven to eight years. They estimated that the global demand exists for between 50,000 to 100,000 new jobs in a well-governed, low-income city like Kigali. As this was juxtaposed with the real prospect of creating zero GBS sector jobs in Kigali if firms did not find workers or ran into other hurdles, we contemplated what Rwanda's chances are for building a GBS cluster. By all accounts, Rwanda is on par with the three to five other top contender locations for the next emerging African GBS cluster (Accra, Dakar, Harare, Lagos, Nairobi). And if the GBS sector's global demand grows as much as it has in the past ten years, then all of these cities (and more) can become new GBS delivery clusters. Which of these cities will become the frontrunner will depend on the combination of their governance/regulations, ecosystem, human capital, and technology/infrastructure. On the one hand, Rwanda's pro-business regulatory and (cyber) security environment is unrivalled on the continent. Rwanda also boasts a rich ecosystem of well-coordinated partner organisations. On the other hand, Rwanda has a skills gap when compared to more established GBS locations. While elite technical skills exist (Kigali is home to some of the world's best higher education institutions in computer science and engineering), the broader base of entry-level skills, particularly in English language capabilities, will

need to be improved. But these are skills that can be significantly boosted with three to six month intensive training programs. Our research found that a number of international partner organisations and training institutions exist in Kigali, who are all willing to fund demand-driven skills development for the GBS sector over the longer term.

Our policy recommendations for cloud-based services are thus focused on sparking a GBS cluster in Kigali and are aimed at three groups of readers: (i) incoming GBS firms; (ii) the Kigali ecosystem of existing GBS firms and their training and partner organisations; and (iii) the Government of Rwanda. For incoming firms, our recommendations are to plan longer term (since workers will need a little time to become competitive with their peers in established clusters), and to clearly define 'impact' (since many international development partners are willing to support GBS firms who see a clear role for themselves in the development of the local labour market). For non-governmental ecosystem players, such as partner organisations and the GBS firms already in Kigali, one policy recommendation is to showcase the Kigali ecosystem to potential new GBS-sector investors. Furthermore, demand-driven training needs to be coordinated with the incoming GBS firms, needs to be aligned with the plans of the responsible government body, the Rwanda Development Board (RDB), and needs to be harmonized with similar initiatives by other partner organisations. A noteworthy case study is the collaboration between the Digital Skills Accelerator Africa (DSAA; a club of IT-enabled services firms), German Development Cooperation, the MasterCard Foundation, Harambee Youth Employment Accelerator, and Education First, who are in the process of building a GBS industry association, and who are all coordinating their upskilling initiatives with the GBS firms.

Our most detailed policy recommendations are for the Government of Rwanda, mainly on economic incentives for incoming GBS firms, and on coordinating a skills pipeline with the local ecosystem of development partners and training institutions. This consists of: (i) addressing the entry-level skills gap; (ii) considering foreign worker permits; (iii) finding ways to become more cost competitive; (iv) helping GBS firms win global contracts for their Kigali centres; and (v) over time, nudging the GBS cluster towards delivering ever more complex services from Rwanda.

- (i) *Coordinate language skills training*: After a glance at various global indices, potential GBS firms will not be worried about the stability and reliability of Rwanda's political system and regulatory framework. The main concern of these potential investors will be whether a small and low-income country like Rwanda can supply enough workers who are sufficiently skilled to serve global markets. The GoR has addressed this challenge for high-end IT services by bringing some of the world's best technical institutions to Rwanda. But on a broader scale, the main task, with sufficiently low entry barriers to employ broader masses, is that of a call centre agent, serving customers in English-speaking (or, to a lesser extent, in French-speaking) global markets. For this, spoken English levels of B2 or better are required. Initial testing by Harambee (2020) indicated that only around 10% of Rwandan university-graduate job seekers possessed these skills in 2019, but that this could be scaled up via three to six month demand-driven training courses if the learners could be incentivized with real job prospects instead of mere certificates. The GoR should coordinate such trainings.
- (ii) *Liberalize targeted work visas*: In the meantime, the GoR should link its efforts to facilitate a GBS cluster with its ICT Hub Strategy ([MINICT, 2020](#)) of bringing talented workers and students from across the African region to Rwanda. Concretely, this would entail a massive liberalization of work visas for GBS sector managers and for GBS workers with particular talents – e.g., niche language skills.
- (iii) *Subsidize innovatively where possible*: Rwanda competes with other countries that can offer better financial incentives as direct subsidies, but the GoR can work around this by offering forgone revenue to newly investing GBS firms (e.g., periods of zero income tax for employees). It can also offer employment subsidies that are supported by international partner organisations (e.g., German Development Cooperation, MasterCard Foundation) in the form of training stipends to the GBS firm's upskilling entities (elev8 for Tek Experts, Careerbox for CCI). Further, we make concrete

suggestions on how the GoR could help incoming GBS firms by lowering their office rental costs (e.g., first as an intermediary lease negotiator, and later as a co-developer of open-space offices) and reduce internet connectivity costs (e.g., by buying bulk packages from providers and reselling parts to GBS firms, and by negotiating off-peak rates for GBS sector night shifts). A straight-forward quasi-subsidy would be to clarify Rwanda's Export Processing Zone (EPZ) status for GBS firms. This would significantly reduce set up costs, and it would lower the value-added and corporate income taxes for services exporting firms.

- (iv) *Advertise globally*: More generally, the GoR is in a unique position to signal strong GoR support to the ecosystem and to advertise for GBS contracts at global summits. As GBS firms' clients often drive the decision for new locations, the GoR can play a significant role in enticing large buyers of global business services to consider Kigali as a delivery location.
- (v) *Nudge towards higher value*: Lastly, when the GBS cluster takes off in Rwanda, the GoR will need to support the sector along the pathway of ever higher-value services, nudging the sector towards knowledge transfer from the lead companies in the global value chain in order to anchor innovation capabilities in Rwanda. This can be done by engaging in regular exchanges with support organisations in countries like Egypt or South Africa, where GBS clusters are established and where the ecosystems are further along the pathway of generating lasting knowledge transfers.

Introduction

“We have to make sure that we are producing over 150,000 formal jobs per year. So that’s quite an ambitious target.” Louise Kanyonga, Chief Strategy and Compliance Office, Rwanda Development Board (RDB), March 2022

“We think of Rwanda as a country that has its people as its biggest resource. We want to see ourselves transforming a traditional agriculture-led economy to a service-led economy. So, the labour market is going to have to adjust to that.” Pacific Tuyishime, Chief Investment Officer, RDB, March 2022

The current era has many names, be it the “Second Machine Age” (Brynjolfsson & McAfee, 2014), the “Fourth Industrial Revolution” (Schwab, 2016), or the “Globotics Upheaval” (Baldwin, 2019), all are attempts at coming to grips with life on an exponential curve. As the influence of technology continues to accelerate, the disruptive curve becomes steeper. This makes the world of work fast and more exciting, but also unpredictable and potentially more precarious for workers without a foothold on the curve. Information and Communication Technology (ICT) has changed from being one sector among others to becoming the infrastructural underpinning for all sectors – most visibly today in services, but also in manufacturing and agriculture. ICT spreads from the formal to the informal economy; and extends out of cities into rural areas ([World Bank, 2016](#)).

In this light, how will Rwandans work in 2030? No one knows, but seven years are not far away. Some jobs will likely remain the same, while others will be vastly different. Some jobs will lead to new and better opportunities, others will not.

For this report, we spoke with firm executives and the state bureaucrats tasked with managing this wave of change, and we mainly listened to workers – Rwandan women and men, employees and freelancers whose work is already affected by technological change, as their jobs are at the frontier of Rwanda’s digital revolution.

This report’s aim is to depict some of Rwanda’s most drastic labour market changes as they are experienced by those who work in these newly transformed sectors. We relied heavily on worker interviews and focus group discussions (FDGs), and wherever possible, the report tells the story in their own words. Several sections of the report are thus framed around direct quotes of workers.

This level of granularity demands that the report’s subject needs to be narrow. It would have been impossible to conduct meaningful primary research into all sectors – investigating what impact the technological revolution has on agriculture, manufacturing, and services. Aligned with Rwanda’s policy priorities for fast economic growth, this report’s focus lies in urban services. As the Rwanda Vision 2050 makes clear:

“Rwanda’s growth trajectory over Vision 2050 will be driven by its services sector ... Increasing ability and participation of women in the labour force will be a significant contributor to this objective. ... While the existing services sectors will remain a key focus, it will be critical to continuously anticipate and accelerate high-value, niche emerging sectors [which] will be targeted with appropriate interventions to develop them. Over the course of Vision 2050, the shift will be to equip Rwandans with the skills to lead as innovators in services. ... Rwanda will position itself as a knowledge hub in differentiated high value clusters” ([MINECOFIN, 2020](#), various pages).

This focus on services is also underpinned by an economy-wide Employment and Labour Market Analysis (ELMA) in Rwanda across all sectors ([Weinmann, 2018](#)), and by our own analysis of recently published secondary data from Rwandan

government sources, based on the Integrated Household Living Condition Survey NISR (2017, EICV 5 2016-17) and NISR (2021, EICV 6 2019-20), the Labour Force Survey 2021 (NISR, 2022), and World Bank (2022b) projections.

In short, agriculture and manufacturing can both be important pathways for prosperity (Pathways for Prosperity Commission, 2018), and the Fourth Industrial Revolution (4IR) creates new opportunities for these sectors across Africa (e.g., for agriculture across the African region see Tsan et al., 2019, and for the possibilities in African manufacturing amidst the 4IR see Altenburg et al., 2020; Kruse et al., 2021). In Rwanda, agriculture is still home to around 62% of the labour force (World Bank, 2022a; NISR, 2017, p. 7), and manufacturing, while only home to 9% of Rwanda's labour force, is the sector that has historically pulled countries out of poverty in other parts of the world (e.g., Rodrik, 2013). But depending on a country's factor endowments, some sectors can provide better pathways than others (Pathways for Prosperity Commission, 2018). With a small landmass that is among the most densely populated in the world, Rwanda will not be able to create many new jobs in agriculture, and being landlocked and far away from ocean harbours, Rwanda's options for exporting manufactured goods to global markets are limited. Hence, for a deep dive into technology's impact on the future of work, urban services are particularly interesting. First, Rwanda's rapid rural-urban migration (World Bank, 2017) leads to fast growth of cities, where most labour is absorbed in the service sectors (at 29% of the economy, most non-farm work in Rwanda alights in services (World Bank, 2022b). Second, the impact of digital technologies on urban services work has already been particularly visible (e.g., in the form of various digital platforms augmenting work in the retail trade and transport sectors) and are thus tangible subjects for observing the technology-induced changes on the labour market. As shown in Figure 1, services also add by far the most value to Rwanda's economy (see also Weinmann, 2018).¹

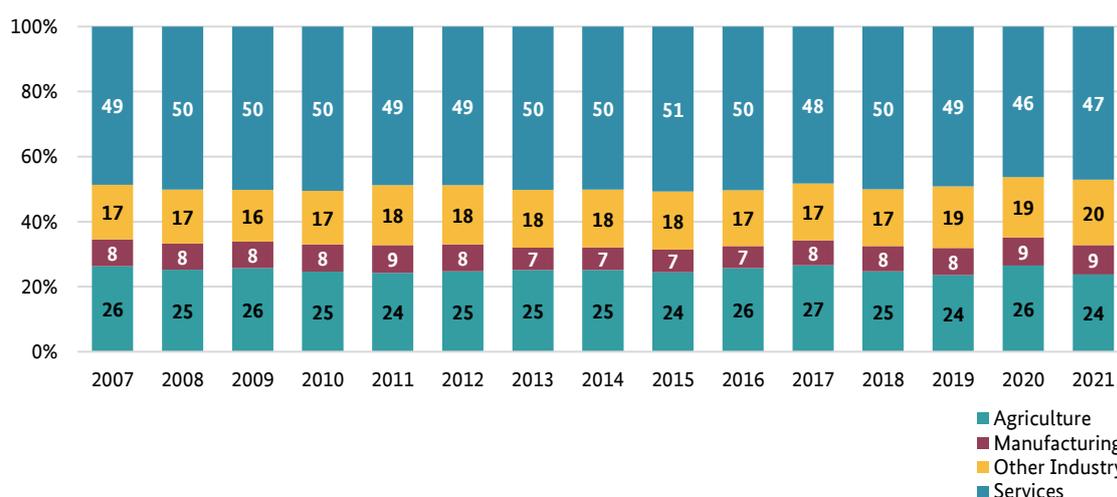


Figure 1: Shares of Rwanda's economic sectors in value added 2007-2021 (% of GDP)

Source: World Bank, 2022c & own calculations

Even though less than a third of the Rwandan labour force works in services, they add about as much value to the Rwandan economy as all other sectors combined (see Figure 1). This is reflected in average income levels and in the numbers of formal jobs. The average Rwandan worker in the labour force has a monthly earning of RwF 21,215 (USD 21) in agriculture; RwF 69,787 (USD 70) in industry; and RwF 114,224 (USD 114) in services (NISR, 2022).² Some 90% of all jobs in Rwanda are still in the informal economy, and formal jobs are the most desirable as they come with a host of benefits, such as health insurance, parental leave, or paid vacations. The absolute numbers of formal jobs available in the primary, secondary, and tertiary sectors also differ by orders of magnitude, as agriculture is home to some 4,000 formal jobs, industry is home to

¹ In absolute terms, manufacturing also adds more value than agriculture, but since manufacturing constitutes only 8.6% of the economy, it has less impact. The growth of employment in Rwandan industry also seems to have levelled off over the past 10 years (World Bank, 2022b).

² The large difference between services and industry is likely due low-paying construction work that makes up a large share of 'industry' jobs. These figures are based on the labour force, which does not count Rwanda's 3.5 million subsistence farmers. Were these to be included, the average incomes in agriculture would be significantly lower than USD 21 per month.

some 32,000 formal jobs, and services are home to some 304,000 formal jobs (NISR, 2022). Most Rwandan women still work in agriculture (71% of the female labour force in 2019), but this demographic is seeing the fastest change, as droves of women have left agriculture over the prior decade (87% of Rwandan women worked in agriculture as recent as 2009). As these women migrate to cities, almost none of them end up in industry – only 2.8% of women worked in industry in 2019, and this has not changed much over the past decade (up from 2.2% in 2009). Nearly all women who leave agriculture end up in services, which are home to 26% of Rwanda’s female labour force in 2019 (up from only 9% in 2009, all based on World Bank, 2022a & b).

The quest for positive structural transformation – i.e., moving greater proportions of both genders from less to more productive sectors – makes it important to understand how the services sector of the Rwandan economy is changing. Beyond this, the within-sector productivity gains of services are yet more important, particularly in Africa. Nayyar et al. (2021, p. 10) found that:

“Looking at three broad sectors—agriculture, industry, and services—across a large cross-section of LMICs [low- and middle-income countries] between 1995 and 2018, we find that within-sector increases explain at least two-thirds of labor productivity growth, on average, in every region of the world ... [and that] ... in Sub-Saharan Africa, the percentage contribution of productivity increases within the services sector (33 percent) was four times that of industry.”

Vast productivity differences also exist within both services and industry, and in both, the most productivity-driving subsectors tend to be those that are exporting, i.e., the ones whose firms compete on global markets (Hausman et al., 2013). This makes services particularly interesting for a country like Rwanda, where exporting industrial products via containerships is more difficult than exporting digital services via the internet.

Hence, the objective of this report is to trace the impact of the global digital transformation on the future of urban services in Rwanda between today and 2030 and to develop frameworks for taking advantage of these changes. Within urban services, a further selection process among the many subsectors is necessary. Here, too, the criteria for this report are (i) scope (i.e., the size of the sector), (ii) affectedness (i.e., how much has technology changed the sector), and (iii) future potential (i.e., how productive and how absorptive of labour can the sector become over the coming eight years and beyond). The service sectors with the (i) most workers and (ii) most visible impacts of technology are retail/wholesale and transportation (with regard to digital technologies, this points to e-commerce, ride-hailing, and delivery platform work). And (iii) the jobs with particularly high future potential arguably lie in tradable services (this points to contact centre work and online platform work).³

This allows us to divide the report into the two categories often used in the literature on digital labour markets: on the one hand, place-based work (focused on e-commerce delivery and ride-hailing services – where transactions between buyers and sellers tend to be conducted in the same physical location), and on the other hand, digital ‘cloud’ work (where services are conducted at computers and can thus – theoretically – be performed from anywhere in the world).⁴

Methodologically, this study is aligned with and builds on the policy framework of the Government of Rwanda (GoR). Vision 2050’s goal of 12% GDP growth per annum for the next decade has many engines. But the main ignition booster for reaching this goal is to become a knowledge-based, service-led economy. This is to be fuelled by:

³ In this choice of sub-sectors, some discretion is involved. Arguments could be made for different sectors – i.e., financial services may be equally affected by technology (with the rise of mobile money). But that sector is more limited in scope and could be subsumed under e-commerce (e.g., as a potential aspect of future versions of mobile multi-service providers on motorcycles). As for highly productive tradable services with future potential, an argument could be made for examining the tourism/hospitality sector. But, compared to digital services exports, tourism seems less affected by technological change.

⁴ In the literature on digital platform work, ‘place-based’ work is sometimes also referred to as ‘location-based’ platform work, and ‘cloud-based’ work is also referred to as ‘online work’.

- (i) Assertively using ICT infrastructure in innovative ways to leapfrog to the technological frontier, be this in physical urban planning (Kigali City, 2013; MININFRA & UNHABITAT, 2018), or in generating digital innovations for connecting Rwandans more closely to the world (via the MINICT (2015) Smart Rwanda Master Plan (2015-2020), and MINICT (2017) ICT Sector Strategic Plan (2018-2014));⁵
- (ii) Consistently fostering gender equality by creating access for women to fully enter the workforce and making use of women's full potential, as per the National Gender Policy (MIGEPROF, 2010 & 2021);⁶
- (iii) Openly turning Rwanda into a private-sector-led knowledge economy and an ICT talent hub for the African region by bringing technical universities, technology firms, knowledge workers, and top students from other countries to Rwanda, e.g., MINICT (2020, ICT Hub Strategy 2024), MINEDUC (2017, National Digital Talent Policy); and MINEDUC (2016, ICT in Education Policy).⁷

For studying technology platforms' impact on domestic place-based workers, the research focused on taxicab app drivers, motorcycle app riders, and motorcycle delivery app riders.⁸ For studying global cloud work, the research briefly depicts Rwanda's prospects for online freelance work, and then, in more detail, examines Rwanda's prospects for growing the Global Business Services (GBS) sector in Kigali. Rwanda's leading government agency for aiding and regulating place-based services (i.e., urban mobility and delivery platforms) is the Rwanda Utilities and Regulatory Authority (RURA). The leading agency for facilitating the export of cloud-based services (i.e., GBS), is the Rwanda Development Board (RDB). Both RURA and RDB work in close cooperation with several other entities like the Ministry of ICT (MINICT), Ministry of Infrastructure, Ministry of Education (MINEDUC), and the Ministry of Labour (MIFOTRA).

Methodologically, we conducted longform interviews with 62 key stakeholders, including with the main government counterparts in RURA, and RDB, as well as with the executives of Rwanda's main ride hailing and delivery platforms, upskilling agencies, and GBS firms.⁹ Separately, we conducted ten focus group discussions (FGDs) with urban workers in Kigali's digital services economy – both place-based and cloud work. The FGDs were preceded by 18 pilot interviews with workers. Lastly, our findings were discussed collectively in two stakeholder workshops in November 2021 and in March 2022 in Kigali.

These findings are presented and lay the groundwork for scenarios of less and more desirable futures, and for our policy recommendations on steering clear of the former and towards the latter. Along the lines of place-based and cloud-work, the report is divided into two studies. Study 1 depicts the methods, findings, scenarios, and policy recommendations for place-based urban services (i.e., Kigali's ride hailing and delivery platform eco-systems), and Study 2 does the same for cloud-based work (i.e., Kigali's virtual and thus potentially exportable digital service sector). The report is written in a way that allows readers to treat these two studies – place-based and cloud – as independent from one another.

5 In the Rwanda Vision 2020 (MINECOFIN, 2000), ICT was already emphasized as one of the Vision's three cross cutting issues, (p. 21). The Economic Development and Poverty Reduction Strategy I, (MINECOFIN, 2007, EDPRS I 2008-12), and MINECOFIN (2013, EDPRS II, 2013-18) then further increased this focus by pushing ahead on building out the ICT fibre optic network and increasing export diversification. The following MINECOFIN (2017, NST I 2017-2024), in its economic transformation pillar, stressed the goals of accelerated urbanization for growth, and a service-led and knowledge-based economy. The National Digital Talent Policy (MINICT, 2016) also seeks to transform Rwanda from a consumer/importer to a producer/exporter of ICTs to the region and the world.

6 Here too, already in the Rwanda Vision 2020 (MINECOFIN, 2000), Gender was emphasized as one of the Vision's three cross cutting issues, noting that "Gender will be integrated as a cross-cutting issue in all development policies and strategies" (MINECOFIN, 2000, p. 21). The National Gender Policy (MIGEPROF, 2010, revised in 2021) cemented this guideline for all sectoral policies to integrate gender issues into their planning.

7 Hierarchically, the value of these documents is such that ministerial plans, like the Smart Rwanda Master Plan (MINICT, 2015) or the ICT Hub Strategy 2024 (MINICT, 2020), feed into the larger cross-cutting strategies, like NST I (MINECOFIN, 2017) and the Vision 2050 (MINECOFIN, 2020).

8 To study technology's impact on place-based entrepreneurship, we had also collected data on the retail sector to examine the effects of the shift of retail to online sales platforms or online advertisement. Yet, this data yielded insufficient results (no clear findings could be produced), and the retail sector was excluded from the analysis.

9 Some of the most central figures – i.e., the CEOs of the main platforms/firm and their direct government counterparts in RURA and RDB – were interviewed several times and follow-up question were posed in writing.

Study I:

Transforming Employment in Rwanda's Urban Mobility Sector – Ride-Hailing and Delivery Platforms as Public Utilities

“The priorities in this Vision will be the ease of mobility and the establishment of reliable, affordable and efficient mass transit systems. Technology will continue changing and it is not possible to predict entirely the infrastructure needs in the next 30 years. However, important indicators will remain the ease and speed of movement between places, the median time taken to commute to work and the use of public transportation” (MINECOFIN, 2020, p. 28).

1 Urban Mobility Platforms in the Global Context

Place-based service platforms, such as ride-hailing and delivery apps can help provide the institutions needed to facilitate markets ([Cramer & Krueger, 2016](#)). We understand ‘institutions’ to be the formal rules, informal constraints, and their enforcement mechanisms (North, 1990, p. 36). In most markets, inadequate institutions are the biggest constraint. Without them, transactions are too costly to make economic activity flourish – many potential trades could exist, if traders could only trust one another. For pointing this out, Douglass North received the Nobel Prize in Economics in 1993, and this is why digital platforms spread like a global forest fire as soon as the infrastructure would allow it ([Fang et al., 2018](#)). A lack of trust between parties block transactions, and platforms now began filling this institutional void ([Heeks et al., 2021](#)). If information asymmetries between traders are large (which they often are) then traders have an incentive to be deceptive if the legal system (formal rules) is too weak to hold them to account, and if there is not significant risk of reputational damage (informal constraints). When platforms come along, they (i) can provide an unprecedented level of transparency (reducing information asymmetries), (ii) can provide an enforceable set of rules of engagement that traders need to adhere to if they wish to remain on the platform (these are the formal rules), and (iii) provide a reputation-building mechanism via star ratings and reviews on the platform (these are the informal constraints).

E-commerce platforms such as eBay and Amazon first showed that this was possible. And for many countries of the Global South, reducing transaction costs was the key for unlocking economic activity.

Yet, globally, it remains unclear which types of place-based work platforms are net beneficial for workers and societies.¹⁰ On the one hand, the large multinational ride-hailing platforms tend to give workers more flexibility and independence from bosses, fewer chances to shirk on responsibilities, and greater incentives to treat customers fairly ([Eisenmeier, 2018](#)). On the other hand, these global platforms have also been found to create a new ‘institutional void’ with a new information asymmetry between themselves on an information precipice, overlooking a valley of less informed local traders and regulators ([Heeks et al., 2021](#), pp. 6-7). Global platform firms such as Uber or Bolt also tend not to adhere to local taxi licensing stipulations ([Moon, 2015](#)). This often leads to rapid increases in the number of taxis, which is welcomed by customers (and initially by all the new drivers who now get to work on the app), but in many cities it soon leads to an oversupply of drivers who have sunk costs into their vehicles and now need to work long hours or take on risky tours to break even ([Heeks et al., 2021](#), pp. 8-9). Traditional competitors are pushed out of the market, and drivers often cannot

¹⁰ ‘Net beneficial,’ in this context means that new business transactions are not only enabled, but also provide benefits – in terms of incomes, working conditions, safety etc. – which more than compensate for potential costs and risks.

easily form collective action bodies. Such dynamics have led some observers to compare the global ride-hailing platforms to extractive industries: extracting rents while adding little value to the local economy, often destroying the ecosystem in the process ([Malhotra & Van Alstyne, 2014](#); [Calo & Rosenblat, 2017](#)). Globally, it is not clear whether a profitable business version of a ride-hailing platform exists ([Ashimwe, 2020](#); [Bensinger, 2021](#); personal communication, Barrett Nash, October 2021).¹¹ But in their quests to expand, global ride-hailing platforms do destroy existing businesses, and drivers can suffer the consequences of price wars between platforms ([Melia, 2020](#); [Carmody & Fortuin, 2019](#)). Even if platform competition is well regulated, in times of economic distress, highly educated members of the upper middle class can fall back on becoming ‘drivers’ for a living, simply because they own vehicles. This crowds out others whose skill levels could be better matched for the urban mobility sector, and thus reinforces underemployment in the economy ([Zintl, 2022](#)). But platforms also tend to be popular with consumers as they make rides more affordable and accessible ([Cramer & Krueger, 2016](#); [Harding et al., 2016](#); [Cohen et al., 2016](#)), and for freelancers in precarious markets, such as online gig workers, owning a vehicle can make ‘platform driving’ a fallback option of last resort (personal communication with online workers, November 2018, Nairobi). Platform-controlled focus groups also emerge (personal communication with drivers and executives of Ride, August 2019, Addis Ababa) and drivers connect via WhatsApp groups and begin to organize collective action (personal communication, anonymous drivers, LittleCab & Taxify/Bolt October 2018, Nairobi).

Debates thus abound over whether ride-hailing, delivery, and similar apps for place-based digital gig work tend to help workers in urban mobility sectors, e.g., due to lower entry barriers and greater flexibility ([Anderson, 2014](#); [Böcker & Meelen, 2017](#); [Eisenmeier, 2018](#); [Tan et al., 2017](#)) or if these platforms harm workers, e.g., due to crowding out effects and increased worker precarity ([Carmody & Fortuin, 2019](#); [Anwar & Graham, 2020](#)).

2 Urban Mobility Platforms in Rwanda’s Political Economy Context

Rwanda is an exceptionally rule-bound society. This may be a historical constant with deep roots in Rwanda’s political culture (Uvin, 1998), or it may be a modern construct, deliberately designed by the leadership in reaction to the 1994 Genocide against the Tutsi (Soudan, 2015). Either way, Rwandan planners are concerned that the densely populated country requires clear boundaries and careful city planning. The ubiquitous and seemingly chaotic urban moto taxi riders have long been an unwelcomed ‘other’ on Kigali’s otherwise clean streets, not fitting neatly into the Rwandan picture of orderly progress. Moto riders have often been the object of contempt among political elites, and as of 2006, the GoR has tried to ban moto taxis altogether. This failed due to public resistance, but the riders have repeatedly been subjected to harsh treatment by the authorities ([Rollason, 2017](#)). Their ubiquitous presence might only be tolerated until a cleaner form of mass urban transportation is found that can replace the moto riders altogether ([Rollason, 2017](#)). In this light, the GoR is in the process of mandating all taxicabs and all motorcycle taxis to register and use selected ride-hailing platforms. No ‘analogue’ taxi services are to be allowed and no other platforms can enter the market. The selected platforms work closely with the regulators who determine all fare prices and platform tariffs. From the GoR’s perspective, such a centrally controlled mobility platforms might be part of the solution to clean up the urban mobility sector, or it might be a temporary stopgap before a cleaner system in the form of larger busses or city trains is devised. Officially, the ride-hailing platforms are mandated because they contribute to more oversight, safer streets, the formalization of the mobility sector,

¹¹ Seen in this light, a loss-making ride-hailing company like Uber may or may not have attempted to extract rents from local transactions but ended up redistributing its venture capital funding from Silicon Valley to cities around the world by setting up the missing digital infrastructure needed to spur more local transactions.

and to making Rwanda a cashless society by the year 2024. Moto taxis are viewed as part of the urban mobility landscape, and need to be planned with, at least until 2050 ([MININFRA & UNHABITAT, 2018](#)).

The ride-hailing platform economy in Rwanda is still underdeveloped. A main function of these platforms in the Global South is often that they give drivers and customers the security they previously lacked by providing the identities and transactional histories of their respective counterparts ([Ingle, 2009](#); [Feeney, 2015](#)). Globally, platforms are not perfect at solving security issues in the urban mobility sector, crime still occurs, but much less so than before the age of platforms ([Heeks et al., 2021](#)).

Rwanda, however, is a unique case, in Africa and in the Global South, in that public security is exceptionally well controlled by the Rwandan state. Thus platforms, particularly in ride hailing, provide a solution for a problem that is much less prevalent in Rwanda than elsewhere. Rwanda's population is extremely densely settled, closely governed, still comparatively poor (even by regional standards), still comparatively rural (besides Burundi, *no other country* in the world comes close to being so densely populated yet so little urbanized),¹² and with comparatively lower levels of human capital ([World Bank, 2020a](#)). This combination of factors makes the ride-hailing platform model less attractive in Rwanda than elsewhere. The mix of strong governance, dense population, and low aggregate demand entails that, the ingredient that ride-hailing platforms are best at providing is not missing in Rwanda. The Rwandan government's reach into society is so pervasive and omnipresent, that the levels of street crime are negligible. Coupled with the densely populated countryside, criminals would have nowhere to hide from the state.¹³ Thus, Rwanda's streets are among the world's safest at night for pedestrians ([Oluwole, 2022](#)). State security forces are stationed strategically on every corner of Kigali's streets to maintain order. In this context, the safety void that ride-hailing platforms fill does not exist: if levels of fraud and kidnappings are near zero, then, for passengers, climbing onto the back of an unmarked motorcycle taxi with an anonymous driver can be as safe as waiting for one that is affiliated with a reputable app and has a transparent driver profile with many star ratings. It also makes little difference for drivers whom they pick up – driving to poorer parts of town is unproblematic because drivers need not fear to be lured into a trap.

Hence, the lack of a larger mobility services sector is less due to an institutional void in security that place-based platforms could fill, but rather due to a lack of aggregate demand – most Rwandans are far too poor to take a taxi, app-based or otherwise.

However, not all transaction costs are about safety and security. Reputational capital may not be needed in Rwanda to protect against the worst, but it can be helpful for identifying the best, and for incentivizing the rest to work harder to attain a higher reputational status. Well-functioning platforms also reduce coordination costs, leading to large efficiency gains ([Cramer & Krueger, 2016](#); [Harding et al., 2016](#)), which have shown to lead to significant consumer surplus ([Cohen et al., 2016](#)). This is where Rwanda can benefit greatly from well-organized platforms that increase labour productivity and firm productivity.

This would be the most positive scenario, as ride-hailing platforms can become the bootloader to further platform innovations that lead to more platform services and broader societal benefits – as envisioned by Yego CEO Karanvir Singh (see Yego Box). The research conducted for this study examines whether Rwanda is *en route* towards this most positive scenario, or, if not, where it might be falling short and what can be done about it.

¹² On the list of the world's most densely populated countries (e.g., Statista, 2021 "countries with the highest population density worldwide in 2019"), Rwanda is the world's 26th most densely populated and Burundi is 30th. The other countries on that list – besides Palestine and Bangladesh – are either tax havens, small island states, much richer, or all of the above. All are significantly more urbanized than Rwanda and Burundi.

¹³ Anecdotally, this is reflected in open-door prisons, not because prisoners are free to come and go, but because they would have nowhere to go if they fled ([Purdekova, 2011](#)).

Yego Box: Plans for the future of Rwandan multi-service platforms

Arguably the two most prominent cases in the world, where platforms have brought wealth to poor areas are Taobao's one-product villages in China and GoJek's multi-service delivery fleets in Indonesia. In China's case of the Taobao villages, significant off-farm rural employment was created by establishing simple manufacturing clusters in villages – specializing in agro-processed crafts, or apparel products – and integrating these into a network of value chains serving the rich demand in China's large coastal cities (Qi et al., 2019). In Indonesia's case of GoJek, one platform managed to go far beyond the single-service 'Uber model', to providing a host of services beyond passenger transport and delivery – from payments, to housekeeping, to massages (Silalahi et al., 2017). Rwanda is among the few African countries that has the infrastructural network needed for a Taobao-villages concept (paved roads and an extensive 4G/LTE network). Yego, with its new delivery branch – Yego Delivery – has plans to set up a similar multi-service platform in Rwanda. Yego's CEO Karanvir Singh has shared with us his ideas for a GoJek-type expansion across space and industries throughout the 2020s. And Yego's close collaboration with the GoR makes this a promising endeavour.

As Yego is rolling out its government-mandated meter system to move Rwanda toward a cashless society by 2024, Singh also has plans to expand the fleet of services Yego can offer. Mindful that “many think they can copy, but few seem to be able to paste,” he does not seek to transfer all of GoJek's services one-to-one to Rwanda (interview, October 2021). Rather, the Yego platform is a data company, analysing consumer behaviour over time, to understand what demands for which specific types of services exist in Rwanda. “We are not a ride-hailing company. What you see on the app is merely one per cent of what we do on the backend of our platform” (interview, October 2021). With this data, Yego seeks to better understand how to create the best types of GoJek-like services for Rwandans: every moto driver could become a bank teller, an insurance broker, and a chauffeur for new types of other service providers, such as grocery pickers or home-visiting hair stylists (interview, October 2021).

These or similar plans could significantly reduce transaction costs and other economic inefficiencies by providing transparency, cutting out intermediaries, and creating new markets, bringing supply and demand of new services into contact with one another. Apart from increasing the quantity of positive-sum transactions (growing the economic pie), in such a future, the platforms could bring to the urban mobility and delivery sector two qualitative improvements (making the pie more nutritious): (i) more opportunities for women's employment; and (ii) more formal and better employment conditions for all.

- (i) Currently, Rwanda's urban mobility consists of nearly all male drivers, with 77 men for every woman in the sector (NISR, 2022). Rwanda's urban retail sector, by contrast, employs some 60% women. Hence, turning ride-hailing platforms into multi-service platforms could bring more opportunities for women, indirectly by opening larger markets to the many female entrepreneurs in the retail sector, and directly by including female service providers into the multi-service platforms.
- (ii) The ambition to make Rwanda a cashless economy by 2024, combined with the data-driven approach by the platforms, can make work more transparent and thus help formalize the many informal urban services jobs. If the platforms make the services of drivers and workers in other urban services more visible and traceable, then this can eventually make these workers eligible for many benefits and worker protection schemes afforded only to formally employed workers.

3 Research Methods: Literature Review, Data, Interviews, Focus Groups & Workshops

The above review of the literature merged general ideas of transaction-cost economics (North, 1990) with discussions on place-based platforms, and the debates around the merits of ride-hailing and delivery apps in the Global South (e.g., Acheanpong et al., 2020; Otieno et al., 2020; Heeks et al., 2021; Lakemann & Lay, 2019; Fairwork, 2021a & b).

Underpinning the empirical section that follows is a review of the media coverage of Rwanda's ride-hailing and app delivery platform economy.¹⁴ The primary data collection then began with 15 pilot interviews (three with taxicab drivers, three with motorbike taxi drivers, four with app delivery drivers).¹⁵ Additional data was collected from retailers who sold

¹⁴ In The New Times: Tashobya, 2018; Nkurunziza, 2019a, 2019b, 2020, 2021; Kuteesa, 2020; Mutanganshuro, 2020b; Bizimungu, 2020a, 2020b, 2020c; Ashimwe, 2020; Mwai, 2021a, 2021b; Rugo & Adams, 2021; Ufitiwabo, 2021a, 2021b, 2022a, 2022b. In The East African: Ntwari, 2016; Ngila, 2016; Mbaraga, 2017; Kanamugire, 2018; Cahigi, 2020. In Taarifa: Taarifa, 2019, Writer, 2022.

¹⁵ The pilot interview respondents for drivers/riders were all male, reflecting that 98.7% of workers in Rwanda's urban mobility sector are men (NISR, 2017).

and/or advertised their goods online, but due to a lack of clear results from this data, these were not included in the study. The interviewer's notes were reviewed and discussed by two other researchers. Based on these notes and comments, the guides for focus group discussions (FDGs) were devised.¹⁶ Altogether seven FDGs were conducted for this section with taxicab app drivers (three Yego and two Move drivers, four male, one female); with motorcycle app drivers (eight Yego drivers and one AC Group driver, all male); with seven delivery drivers (four Vuba Vuba and three Rush Foods drivers, all male).¹⁷ This was complemented with personal communication with company executives, regulators, and industry insiders, in the forms of repeated short interviews (often phone calls or chat messages pertaining to particular questions), nine longer (hour-long) semi-structured interviews, and three round table discussions (these took place at two full-day workshops in Kigali, on 9 November 2021 and 10 March 2022).¹⁸ Whenever statements in our driver/rider focus group discussions diverged from statements of platform executives, state regulators, or media reports, the figures obtained from the drivers/riders are presented here. This study thus makes no claim to present the 'true' or most up-to-date figures, since these findings are based on a comparably small number of FDGs and the regulatory landscape in this sector is fast-changing. It merely suggests that in the few instances where our driver/rider-based data differ from the officially cited figures (e.g., [Writer, 2022](#)), this provides an opportunity for follow-up research to verify or refute our findings.

4 Findings: App Drivers for Taxicabs, Moto Taxis, and Delivery Platforms

The primary findings are presented first for taxicab app (car) drivers, followed by motorcycle taxi app riders, and motorcycle delivery app riders.

4.1 *Taxicab Apps – Yego Cab & VW Move – Two Leapfrogging Business Models, One Predicament: A Painful Transition to the Platform*

The Kigali taxicab industry is small. Due to the country's low average incomes, the absolute numbers of Kigalians who can afford to take taxis is limited when compared to other African conurbations. Around 2015, global platforms like Uber or Taxify/Bolt began to spread to larger markets in the region, such as Nairobi, Kenya, to compete for market share. In Kigali, meanwhile, a more controlled version of ride hailing emerged in 2016, when a local meter company, 250 Taxi, set up a ride-hailing app that was much more restricted by the RURA. The meters were only allowed for existing licensed taxis in Kigali, and the fares and tariffs were stipulated by RURA, not by the platform (MININFRA, 2018, p. 40). This experiment did not scale, as most taxis did not use the meter. But the idea of a quasi-public utility platform remained and soon surfaced again. In mid-2020 the GoR first attempted to mandate a switch of all Kigali taxis to selected digital platform meters. This transition initially failed, due to difficulties in rolling the meters out to all drivers. By mid-2021, the GoR obliged all taxis to join one platform, Yego Cab, part of Yego Innovision Ltd., an Indian-Rwandan consortium that works in close

¹⁶ All pilot notes, FGD guides, and colour coded FGD transcripts are on file with MeliaCRED and anonymized versions can be obtained upon request (the initial pilot interviews were not taped, but detailed notes were taken and are on file).

¹⁷ This included three interviews with Yego founder/CEO, two interviews with SafeMotos/CanGo co-founder/CEO, two interviews with the RURA administrator responsible for ride-hailing regulations, one interview with RushFoods/RushService founder/CEO, and one interview with the managing director of LittleRide (Kenya). Company representatives of VW Move and Yego, the CEO Vuba Vuba, and their RURA counterpart all participated in a stakeholder workshop on 10 March 2022 to provide feedback on an initial draft version of this study. All focus groups and interviews were translated, transcribed, and coded. Four further FDGs were conducted (two FDGs with merchants who sell/market goods on e-commerce platforms and via social media platforms; one FGD with e-commerce platform executives, and one FGD with social media influencers), and seven longform semi-structured interviews were conducted with e-commerce platform proprietors (including Park&Pick founder/CEO; Urungi CMO; Islander Fruit founder; CoCook CEO). These additional FDGs and interviews with online merchants and social media influencers were initially planned for an e-commerce retail section of the study but did not yield sufficient insights to warrant that section. This data thus merely serves as supportive material.

¹⁸ Here too, all pilot notes, FGD guides, and colour coded FGD transcripts are on file with MeliaCRED, and anonymized versions can be obtained upon request.

cooperation with RURA. Yego has thus become Rwanda's main ride-hailing platform (see the Yego Box above). The only other legal alternative for Kigali taxicab driving is currently Volkswagen Move, which also works closely with RURA, but to date holds a smaller market share (in Kigali, Yego Cab has a fleet of 900 cars, whereas the pre-pandemic maximum of VW Move was 230 cars – building back to 100 cars in late 2021).¹⁹

Both companies are at the global frontier in their approaches to re-thinking the ways platform technology can be used in more equitable and impactful ways. Neither approach is best viewed as a purely profit-based business model in Rwanda, but rather as a social experiment.

Yego's business model was developed collaboratively with the GoR, which is that platform technology should essentially be viewed less like private for-profit businesses and more like public utilities that need to be much more regulated by governments than is currently the case in most countries (interviews, Karanvir Singh, October & November 2021).

VW Move, also interested in impact and working in close collaboration with the GoR, takes a different angle: as African middle classes grow, so too will their appetite for motor transport. But to meet the global CO2 emission goals, the aim is to help establish in Rwanda a driving culture that is more efficient and environmentally friendly. This is to be done by nudging consumers away from car ownership and towards ride-sharing schemes, and by nudging drivers away from carbon-based to electric vehicles. The VW-Rwanda partnership is thus seen as a testing ground for leapfrogging both environmentally problematic patterns in the rest of the world.²⁰

These two companies' business models differ, but both are compatible and firmly aligned with the Rwandan SMART City agenda of moving Kigali towards a fairer, safer, and greener public transport system (MININFRA, 2013; [MININFRA & UNHABITAT, 2018](#)). Yego Cab deploys freelance drivers, adds a 10.5% tariff to trip prices and leaves all costs (taxes, vehicle maintenance, insurances) to the drivers. These drivers' incomes fluctuate widely, where in a good month, a driver can take home RwF 300,000 (USD 300) while in bad months, drivers can barely cover their expenses. VW Move, on the other hand, supplies the vehicles, employs drivers, pays them monthly salaries of RwF 100,000 (USD 100) plus bonuses (20% of a daily intake beyond RwF 50,000 [USD 50]), and covers all vehicle-related costs, while drivers need to pay for their own daily transport to and from the vehicle depot. It is difficult to compare freelance earnings with stable wage salaries, but a rough comparison with the rest of the population is that anyone who earns RwF 150,000 (USD 150) per month is within the top 5% of wage earners in Kigali's labour force, and within the top 2.5% in Rwanda's labour force.²¹ Driving a taxicab in the capital city is thus a widely desired job in the country ([Rollason, 2017](#)).

In the FDGs, the drivers for both firms expressed limited enthusiasm for their respective platforms. Some discussants initially noted that the work on these platforms has allowed them to gain new skills in dealing with new technologies, to avoid having to haggle over prices with their customers, or to generate new leads for further business opportunities. "I learned to be updated with new technologies, to use Google Maps and GPS. ... it all opened my eyes to new skills" (FGD2R4, translated from Kinyarwanda). "The technology helps show the distance covered and the money to be charged and like that there can't be any conflicts because [customers] know you have nothing to do with the price set" (FGD2R2, translated from Kinyarwanda).

19 Although VW Move is also experimenting with other forms of mobility services, such as company vehicle fleets and VIP airport shuttle services.

20 Several other experiments with electric vehicles are underway in Rwanda. Yego plans to develop a fleet of electric bikes (Yego Innovation, 2021, Interview, Karanvir Singh, October 2021), Ampersand Rwanda Ltd. manufactures electric motorcycles in Kigali, and Safiride (Safi Ltd.) is pushing into the market for electric ride-hailing. All of these attempts to transition Rwanda's urban mobility sector to electric vehicles are actively supported by the GoR (personal communication, Josh Whale, Ampersand; Tony Adesina, Safi; Peter Mugiligi, RURA, March 2022, Kigali).

21 Own calculations, based on Labour Force Survey 2021 ([NISR, 2022](#)). Note that by this metric the labour force consists of only 4.2 million workers in Rwanda, excluding another 3.5 million subsistence farmers, who make up 45% of the working-age population.

But the discussants' emphasis throughout the focus group was clearly on airing their despair. Some frustration was related to perceived injustices meted out to them by the government or other entities against whom drivers felt powerless.

"We get many orders through the phone calls ... the apps show a client, the names, and phone numbers of a driver to pick them. ... Imagine receiving an order and the police pull up behind you. They write you a ticket of RwF 35,000 [USD 35, for phoning while driving]. Imagine if it happens twice a month? Your whole salary is gone" (FGD2R4, translated from Kinyarwanda).

"Sometimes our systems go down and the machines fail to work. When you have a client and the system is down, RURA, when they catch you, you are charged as cheating the system. ... It makes no difference even when we call before to inform that the system is not working. ... You are charged a RwF 20,000 [USD 20] fine" (FGD2R1, translated from Kinyarwanda).²²

The discussants' greatest despair was felt over lost incomes due to a combination of worsened economic conditions, higher fees, and growing competition from illegal (unmarked) taxis, and their own comparative disadvantage due to higher fare prices. Legally operating platform taxis have greater expenses: For Yego Cab drivers, a 10.5% platform commission and a 1% RURA fee apply for all transactions, quarterly value-added tax (VAT) payments to the Revenue Authority, monthly mandatory parking lot fees of RwF 20,000 (USD 20), double the number of technical inspections (twice yearly as opposed to once), and insurance fees that are more than double those for regular vehicles – RwF 189,000 (USD 189) annually, compared to RwF 85,000 (USD 85). These costs could, in theory, be offset by the fact that Yego Cab's ride-hailing platform meters make fares not cheaper, as is the case in most other countries, but more expensive.

As fare prices in Rwanda are not set by the platforms but by the government regulator RURA, the aim is for Rwanda to tap into the platform technology benefits (safety, transparency, fairness) without the downsides of platforms seen in other countries (larger margins extracted by the platforms, high worker turnover, low worker earnings). The main objective is to formalize the mobility sector, and to grow the industry by making it cashless, more efficient, transparent, and safe. Fairer wages and thus raised living standards for drivers are part of the strategy to reach these goals. But in the short term, the new system can have the opposite effect:

"Many clients don't like the machines [...] Even this morning, a client wanted me to take him to Ruyenzi, he asked me the estimated cost. I told him RwF 15,000 [USD 15] and he later told me there is an illegal driver who is taking him there for RwF 10,000 [USD 10]" (FGD2R4, translated from Kinyarwanda).

"There came the car we call 'not branded.' They work illegally and don't use the system. When we meet our clients and ask them why they no longer call us, they reply that they have found other cheaper drivers and will no longer work with us. We complained to RURA that we have lost many clients. We asked them to help us go back to our usual ways, but in vain. And we don't know where else we can get help from. ... We have had meetings with the police, Yego Cab, we explain our problems, but their answer was still no. They said we should use the system or stop working" (FGD2R3, translated from Kinyarwanda).

"That is why we are having many illegal taxi drivers because they have less charges, less complications, less risks and make more money" (FGD2R3, translated from Kinyarwanda).

These are the trials and tribulations of the government's attempts, together with Yego Cab and VW Move, to formalize the taxi industry and make it more transparent, safe, and eventually more lucrative for drivers. Yego's stated approach is that of a social business:

²² According to Ufitiwabo (2022a), fines for driving off-platform were RwF 25,000 (USD 25) before, and were reduced to RwF 10,000 (USD 10) as of January 2022.

“We ‘meter’ and monetize every ride, whether it is hailed on the Street, via the App or Call Center. The Fares are distance-based with no surge. Passengers enjoy enhanced safety and unparalleled convenience. Drivers earn a livable wage, with dignity of labour and a brighter future. The Government has access to the platform for Safety, Security and Tax Collection” (Yego, 2021).

The reasoning is sound, and in times of international conventions and frequent business and expat travel, the meters’ higher prices may well help the taxi drivers earn more. Yego Cab’s 10.5% tariff is far below the regional average (e.g., compared to Uber’s 25% in Kenya). But the mandatory switch was introduced during the pandemic, when the transport economy was at an all-time low and most passengers were cash-strapped locals in need for cheaper ways to travel. In such trying times, it seemed sensible to phase in the mandatory platform in a trial-and-error manner, as even harsher punishments for illegal taxis might have led to the opposite outcome by taking away the drivers’ last option to survive.

The GoR might need to be more flexible and introduce the formalization of the sector more slowly, by allowing platform drivers tax breaks until the travel industry has fully recovered.

“I am not much concerned with these illegal drivers because I believe everyone is free to do what is best for him or her. My biggest concern is high taxes. The taxes are very high. Before the pandemic, we were doing fine. During the pandemic period, not only our business, many businesses suffered a lot. When we got hit by the crisis, we were expecting some tax allowances, but we didn’t get any” (FGD2R1, translated from Kinyarwanda).

Similarly, at VW Move, it might be in the drivers’ interest to pause the performance-based pay scheme and revert back to the previous flat rate payment until the post-pandemic economy has fully recovered.

“Nowadays to make RwF 50,000 per day as a taxi driver is very hard. You can make it one day, even twice the amount, and the following day you spend the whole day sleeping in your car. The target is not fair. It is the mission impossible. That is why many of us have left the company and go work illegally. When they made these changes. They said they wanted to motivate us and improve the competition. And in this business, there can’t be competition. We mostly depend on luck, because I cannot call you and tell you to take you somewhere, can I?” (FGD2R1, translated from Kinyarwanda).

4.1.1 Immediate Policy Recommendations taken from these insights for Taxicab Platforms

For VW Move: explore whether temporary return to non-performance-based pay may help drivers while the economy recovers from the pandemic (investigate to what extent driver performance is arbitrary, based on luck rather than merit);

For Yego Cab and the GoR: harsher penalties against illegal competition might be a longer-term solution, but most likely counterproductive while the economy is still sluggish. The better short-term solution would be some form of tax breaks or subsidies to tie drivers over this transition.

4.2 Motorcycle Taxis – Same Path Towards a Public Utility Platform, Same Potholes Along the Way?

As car taxicabs are more expensive, many more motorcycle taxis exist in Rwanda. Kigali’s ratio of car taxis is much higher than elsewhere in the country, but even here, the 3,000 taxicabs are dwarfed in number by some 26,000 motorcycle taxis that operate in the city. Hence, for studying the platform technology’s impacts on labour markets, the motorbike taxi sector is particularly interesting, as it employs nearly an order of magnitude more workers. In line with its goal to make Rwanda’s urban mobility sector fairer and more efficient (and to make the Rwandan economy cashless by 2024), the GoR has mandated all motorbike taxis to use a digital smart meter as well, to allow RURA to determine the fare prices and track

vehicles.²³ Chronologically, RURA first flagged this ambition in early-2018 ([The New Times, 2018](#)). But the digital transformation of Rwanda's motorcycle taxi industry then lagged some two years behind that of the taxicab industry. Whereas the use of taxicab meters has been mandatory since 2020, the rollout of digital meters for motorcycle taxis faced technical issues and has yet to be completed. Attempts were made in 2020 and 2021,²⁴ and as of late 2021, Yego Moto had around 9,000 motorcycle taxi riders on its platform. According to Ufitiwabo ([2021b](#)) two further companies, AC Group and Pascal, had 3,000 and 3,700 riders respectively (our focus group discussants estimated that seven out of ten platform riders used Yego Moto meters in mid-2021). The prices for all three were the same, determined by RURA, as were the platform charges, set at 13%.²⁵ The contracts with Pascal and AC Group were later terminated, due to technical difficulties, and Yego Moto is set to be the only motorcycle taxi app platform as of 2022, and riders can exchange their meters for Yego Moto meters free of charge ([Ufitiwabo, 2021b](#)). At the time of this writing, the wide-scale use of Yego Moto meters for motorcycle taxis is still due to roll out sometime in the course of 2022.

Similar to the predicaments reported by the taxicab drivers (see above), the interviews and focus groups with motorcycle app riders revealed the same problems in the transition to a fully platform-based urban mobility sector. Like the cab drivers, the moto riders initially voiced some admiration for the technology, were glad to have improved their skills in using GPS maps, and were relieved that every driven kilometre was now counted by the app and paid for by passengers. But much like the taxicab drivers, motorcycle app riders mainly uttered frustration over increased operating costs. In 2016, the annual cost for RURA moto-taxi permits had already more than doubled, from RwF 20,000 (USD 20) to RwF 43,500 (USD 43), and in 2019, then, their annually mandatory motorcycle taxi insurance fees of the only permissible provider, Radiant, had more than tripled, from RwF 46,000 (USD 46) to RwF 158,000 (USD 158).²⁶ *“These requirements’ costs go beyond the financial means of the rider”* (FGD3R4, translated from Kinyarwanda). *“There is no way a rider can financially transform his life if he is paying RwF 300,000 [USD 300] per year for documents”* (FGD3R3, translated from Kinyarwanda).

And the app riders voiced despair over their predicament of either losing out to illegal off-meter riders or risking a fine by the traffic police. RURA had started out by setting trip prices slightly higher than the going market rates. This had much the same effect as in the car taxi app industry discussed above – leading the *customers* to insist on off-meter rides. The trip prices for motorcycle taxi apps were then slightly lowered by RURA in August of 2021. Since margins are so slim, this reduction now led the *riders* to insist on off-meter rides:

“They call me and the meter device rings ... Most of the times I do not answer the passenger’s calls because they do not pay me a fair trip price. For instance, I cannot answer a call of a passenger located at Pension Plaza in town heading to Nyabugogo who will pay me RwF 300 [USD 0.30] when I have another one in town who needs to go to Nyabugogo for RwF 500 [USD 0.50] after haggling. I do not answer such calls. Instead, I haggle with the passenger I physically see. The meter devices put us at a loss because they have decreased the trip price. If it was before, I would use the meter device always because the prior system had good trip prices” (FGD3R4, translated from Kinyarwanda).

This led some riders to question the coerced transition to the platform, and to debate the legitimacy of forcing drivers to switch to an app without also obliging that app provider to enter into employment contracts with its drivers. “You see there was a time when a rider riding with no meter device got arrested [and was] given an appointment of when he would go to pick the meter device from Yego Moto” ... (FGD3R6, translated from Kinyarwanda). “We really do not know our

23 Kigali's first successful moto taxi platform was SafeMoto (later CanGo), a private firm that operated from 2014 to 2020.

24 Initially, one of three types of meters (AC Group, Paschal Tech, and Yego Innovisions) were to be purchased by the drivers, and news reports cited RURA as noting that some 21,600 of Kigali's 26,000 moto-taxis were equipped with the new meters. The mandatory use of these meters was then soon dropped after complaints by customers that fares were too high, (RwF 300 for the first three kilometres and RwF 135 for every km thereafter), and drivers lamented that devices were often faulty, and RURA noted supply shortages. By August 2021, the mandatory meters were reintroduced ([Ufitiwabo, 2021a](#)).

25 Rides still cost Rwf 300 (USD 0,30) flat for any trip under two kilometres, but now adding only RwF 107 as of the third kilometre (down from RwF 135 earlier) and slightly more per kilometre for long trips (RwF 187 for every kilometre beyond 40 km).

26 Compare Ufitiwabo ([2022c](#)) for slightly different figures.

relationship with Yego Moto ... We have no employment contracts with Yego Moto” (FGD3R7, translated from Kinyarwanda).

“No, the contract which is in the meter device app is not an employment contract between the riders and Yego Moto. ... We went to Yego Moto, signed a contract and received a meter device. But really, we are not Yego Moto employees as we do not receive a remuneration from Yego Moto. We are also afraid that we can pay RwF 148,000 [USD 148] if the meter device gets stolen” (FGD3R4, translated from Kinyarwanda).

Having to make these mandatory tariff payments to a company without having an employment contract with that company led some discussants to contemplate the public-private-partnership nature of the Yego-GoR relationship.

“We do not know why Yego Moto charges us that 13%. It works in the same way we buy the insurance and like how we pay for the goods carriage national permit ... I think it is a government institution” (FGD3R6, translated from Kinyarwanda).

When discussing their options, one rider concluded that they had no choice but to go along with what the regulator decides: “What do you think riders can do? The traffic police officer tells you to go to Yego Moto to be given a meter device. In other words, riders work with the Government” (FGD3R2, translated from Kinyarwanda). This course of the discussion led one rider to utter an outright rejection: “The meter devices make us experience losses. I hate their meter devices. If using the meter device was optional, I swear that a good number of riders would not own one” (FGD3R7, translated from Kinyarwanda).

But most discussants also felt that the platform could have a positive impact if implemented correctly and adhered to by the riders: “If Yego Moto would set a fair trip price and [if] riders use these meter devices, we cannot face challenges in this job” (FGD3R8, translated from Kinyarwanda).

“Technology is good whether we love or hate it, the generations to come will have to use it. ... Yego Moto should get a trip price per kilometre device that satisfies both sides. They have to do it like buses do in Kigali: if a passenger doesn't want to use the tap-and-go, he will not get another bus. So, all motorcycle taxi riders should be given meter devices and riders should also be smart and say that they will not serve a customer who does not use the meter device” (FGD3R1, translated from Kinyarwanda).

With a dense network of riders and tightly policed streets, the platform adds little value in terms of safety and convenience (riders are often nearby and can be waved over). The discussants thus understood how difficult it would be for the regulator to set fare prices exactly right:

“I think the idea behind decreasing the trip price was reasonable somehow. Customers were scared to use the meter device. For instance, a destination that they used to pay RwF 500 [USD 0.50] to get to, the meter device used to charge them, let us say RwF 700 [USD 0.70]. You see? ... [But] the meter device will not be used by riders as long as its challenges to the riders are still there” (FGD3R4, translated from Kinyarwanda).

Rider suggestions for policy recommendations included some practical solutions for reducing costs, such as paying insurance or permit fees through the platform: “As they charge us the 13% through the system, they should also deduct some little money to pay for the stated expenses the rider has to pay so that they can pay those on our behalf” (FGD3R7, translated from Kinyarwanda).

Other suggestions were to improve technical issues such as internet connectivity, map legibility, or ways to answer calls while riding. Discussants disagreed over having to use their own airtime for calling customers. Some found this to be a minor issue, while others insisted that it was part of their larger predicament, adding “fuel in the burning dry grass. Normally, Yego Moto charges us 13%, and on top we have to use our own airtime to call the customer, yet the trip price is still the same one we are not happy with” (FGD3R8, translated from Kinyarwanda).

At the time of these focus group discussions (in the fall of 2021), around half of Kigali’s motorcycle taxi riders had been ordered to pick up and use a platform meter. As all focus group discussants were among them, they lamented that the transition could only succeed if the meters were rolled out to all riders in the city.

“The challenge ... is that the road always gets new motorcycle taxi riders. There is a movement of some motorcycle taxi riders getting in the industry and others leaving it. I don’t know how they will solve this challenge” (FGD3R3, translated from Kinyarwanda).

Most discussants also wished for better integration with the platform, preferably via employment contracts, but alternatively at least via better communication channels with the platform and the authorities.

“We have a motorcycle taxi riders’ federation, but it does not help us at all. However, the media has helped us a lot to solve some of our challenges for instance it has advocated for the insurance amount we pay and also about these traffic police officers that used to write a contravention amount they felt can make a rider suffer when the rider commits a traffic offense. We see change whenever the media intervenes in our challenges by advocating for us” (FGD3R1, translated from Kinyarwanda).

4.2.1 Immediate Policy Recommendations taken from these insights for Moto Taxi Riders

For a consortium of Yego Moto, the GoR and possibly development partners: short of employment contracts, explore options for subsidy schemes, specifically for riders who made the switch first to the platform and now suffer from off-platform competition.

For the GoR: explore other possibilities to lower these first-mover’s expenses, e.g., by temporarily lowering permit costs or insurance fees only for these ‘early adopters’ (this could double as an incentive for others to join the platform).

For development partners and the media: facilitate regular venues for public feedback from riders, either via existing channels or via focus group discussions such as the ones conducted for this study.

4.3 Food Delivery Platforms – Safe Harbour in Times of the COVID-19 Pandemic?

Throughout 2020-21, the COVID-19 Pandemic and the various curfews, work-from-home measures, and outright lockdowns had drastically reduced the demand for passenger traffic in Kigali, but at the same time increased the demand for delivery services. By one estimate, the lockdowns increased Kigali’s e-commerce delivery business by up to 30% ([Mwai, 2021a](#), citing Vuba Vuba CEO). This led some former motorcycle taxi riders to switch to working for food delivery platforms such as Vuba Vuba or Rush Foods ([Bizimungu, 2020c](#)).

In the Rwandan eco-system, food delivery platforms are still much smaller than is the taxi industry. Jumia, the regional e-commerce giant had expanded to Rwanda in 2013, but needed to restructure and scale down its operations in late 2019,

and the e-commerce platform withdrew from Cameroon, Tanzania, and Rwanda within the span of a month.²⁷ The closing Rwanda operation left behind the Jumia Food director, Albert Munyabugingo, who started a new company, Vuba Vuba, and took on 80 Jumia riders for food delivery ([Mwai, 2020](#)).

Kigali's other food delivery platform, Rush Foods was founded around the same time, in December 2019, by Naeem Ali, a Pakistani-born serial entrepreneur who has lived in Rwanda since 2010 and is invested in other businesses such as private schooling and sports betting. Ali seeks to turn Rush Foods into a multi-service e-commerce platform, Rush Services, which could be used for imports of products from abroad, such as generic medicine, and linked to local delivery services (personal communication, October 2021). As of March 2022, Rush Foods had some 35 riders, collaborated with some 200 restaurants and grocery stores in Kigali, and had around 11,000 downloads of the Rush Foods application in the city. Rush Foods aims to grow its market share by charging low platform commissions of 10-15% for restaurants and as little as 5% for grocers (personal communication, October 2021). Commenting on the increased demand for delivery services, Ali noted that the "Pandemic time was amazing, it was free promotion, I can say, without pay to social media, I got so many downloads." And when asked if he had difficulties finding new delivery riders, he confirmed an oversupply of "these [moto taxi riders] are not earning enough, ... so basically those bike riders are coming to us" (personal communication, October 2021). These are the two main food delivery platforms in Kigali. As the pandemic grounded most taxis services in the spring of 2020, Yego added a third delivery platform to the market, restructuring some of its moto taxi riders to become Yego Delivery riders in May 2020 ([Mutanganshuro, 2020a](#)). By mid-2022, Yego Delivery had some 40 drivers (personal communication, Yego CEO Karanvir Singh, July 2022).

Our delivery focus group discussants were riders for Vuba Vuba (4) and Rush Foods (3), and all but one had previously been moto-taxi riders. Apart from the pandemic's shift in demand – away from passenger transport and towards delivery services – the main benefits in joining the food delivery platforms sector cited by discussants were the lower operating costs due to legal requirements – passenger bikes are legally obliged to take out higher insurances, pay for regularly recurring driving tests, and undergo more frequent technical inspections of their bikes.

Most also saw clear opportunities for personal development in their work as delivery riders: "...this industry is the best. The first best thing that happened to me is that I became open minded. [For example,] before shifting, one would own a smartphone but fail to successfully use Google Maps. Now it is different" (FGD1R6, translated from Kinyarwanda). Even riders who later uttered severe grievances (see below), also acknowledged that restaurant food delivery provided some opportunities for them, for example in interacting with Kigali's expat community: "This job provides a chance to meet diverse people. ... there is change happening in one's head, right? ... your language skill grows. This is not the case [in] motorcycle taxi riding. He is always expected to use Kinyarwanda" (FGD1R2, translated from Kinyarwanda).

The riders were aware that delivery platforms would pay less per driven kilometre than would the taxi industry, but their main hopes, when joining the food delivery platform industry, was that this would be offset by the perks of a regular income, and by the prospect of eventually being hired to become employees of the platform company.

²⁷ Since the company withdrew under duress from three markets within November–December 2019, this seems to have been an emergency cost-cutting measure. We have no reliable information on why Jumia chose to withdraw from Rwanda in particular, but we assume these were Jumia's three least developed markets.

“I was a motorcycle taxi rider, too, for a period of almost five years. However, I earned almost nothing. The food delivery riders I knew clearly had a more positive financial status than me in a short period of time. They told me that they were getting a monthly salary, and on time. And also, there were some other additional benefits to motivate them” (FGD1R6, translated from Kinyarwanda).

Another discussant concurred: “...a daily salary I used to get back when I was in the motorcycle taxi riding industry. A monthly salary ... is better, and different from getting RwF 4,000 [USD 4] or RwF 5,000 [USD 5] or RwF 3,000 [USD 3] on a daily basis” (FGD1R5, translated from Kinyarwanda).

While the merits of switching from daily to monthly payments in a low-income context are debatable (Collins et al., 2009; Banerjee & Duflo, 2011), other discussants concurred that payments did indeed arrive monthly, but that riders were also subjected to the obligations of stable employment contracts. This led all discussants to utter frustration over not (yet) having received an employment contract.

“They promise things which either get delayed or never get realized. [...] They used to give bonuses when I was joining which are no longer being paid. They give it to people in some few months after joining but as the discussions on the employment contract went on, most of the time the employment contract clauses are never followed” (FGD1R6, translated from Kinyarwanda).

“I was expecting to be given an employment contract, but the truth is that I do not have one. This is a general issue to more than one motorcycle rider in this food delivery industry. Some of them have already left, others are leaving, and the company is hiring as if nothing has happened. These new employees do not help the company to grow. We, old employees, are the ones training the new ones. This too is the reason why I may quit any time soon” (FGD1R2, translated from Kinyarwanda).

When asked whether these grievances could be addressed collectively, the discussants dismissed the idea:

“We have WhatsApp groups at our workplace. A company-wide and a riders’ one. The problem is that we are told that we have only to do our job, that the company needs nothing else from our side [...] Those kind of words from our managers have been in the company for so long” (FGD1R2, translated from Kinyarwanda).

“We have three riders’ representatives. If you tell one of them your issues to be escalated, he perfectly does it, but the feedback is always the same: ‘we will see’” (FGD1R7, translated from Kinyarwanda).

The structural circumstances that make collective action for drivers difficult in this context may be the combination of demographically induced oversupply of young urban job seekers (more young men entering the labour market and investing in motorbike ownership), and the pandemic-induced lack of demand, particularly for taxi services, to keep up with the supply of riders. In such an environment, a common platform practice noted in the literature can be to encourage worker attrition by offering new workers perks that older workers are no longer receiving (Waters & Woodcock, 2017). This might be the case in some of Kigali’s delivery platforms.

“I remember when I was getting in [the platform] company, the company provided the rain suits to riders. It is now nine months without getting even a single rain suit. I also heard that they also used to provide rain proof phones. I got none since joining the industry. ... I was allowed to get a quarterly bonus which I have not been given since then. I was once told that the door is always open if I would like to quit the company to emphasize that we are casual employees” (FGD1R1, translated from Kinyarwanda).

Strategically induced worker turnover can also weaken the collective ability of workers to push back against some of the most egregious practices. As one discussant noted:

“We are treated like casual employees. However, we have set hours to get to and to leave the job. I think that casual employees come and go as they wish. If someone has set working hours and punishments for lateness and absences, I think that he should also award his employees employment contracts. They deduct some cash on one’s salary or force the employee to take some days off. ... Some few days after joining is when the COVID-19 lockdown started. I had nowhere else to go to. That is how I kept working there but I know I was cheated” (FGD1R4, translated from Kinyarwanda).

In a similar vein, another discussant noted:

“In [this platform company], unjustified absences are not tolerated. The only justified absence is sickness. Sickness has to be reported and informed to the riders’ manager. Being absent to attend another casual job or even him getting to know that I am now doing this interview instead of working, can get me in trouble” (FGD1R6, translated from Kinyarwanda).

At first sight, such practices seem to violate ethical labour standards ([de Stefano et al., 2021](#), [Fairwork, 2021a](#)), and could even be in breach of labour regulations (GoR, 2018). These circumstances were compounded by lower payments in the delivery industry than as freelance moto-taxi riders. Using the example of riding from Remera to Masaka, the riders agreed that as moto-taxis they would have charged RwF 1,500 (USD 1.50) for one way, while as delivery riders they receive a mere RwF 800 (USD 0.80) for both ways, barely more than a quarter of the old price.

Overall, however, the discussants also noted that they were aware how low their reservation wages were (i.e., the lowest income below which they would refuse to work), due to the difficulties faced in the passenger transport industry. Some, despite having spelt out the above challenges, also openly uttered their gratitude for having the chance to work in the delivery industry: “I am now riding for Vuba Vuba and love it, and I would encourage others to join too if they get an opportunity, since it is a safe refuge to some things out here” (FGD1R6, translated from Kinyarwanda).

In our long-form interviews and stakeholder workshops, the issue of employment contracts was discussed with the executives of these platforms (and with those of a third, Yego Delivery). All responded that employment contracts were economically unfeasible for them.

“[my delivery riders] are freelancers because I can’t commit someone fixed salary, and they don’t want fixed salary because they are happy on commission basis and delivery basis because they are earning more than salary. They are happy to come, it’s an open contract, they are happy to go anytime, just give me my property back, my box, just give me a short notice, one day, because we have too many back-ups, people who want to join” (personal communication, October 2021).

This indicates that employment contracts are not on the horizon for this particular platform, and that attrition can become a tool for dealing with overly demanding riders. The executives of the other two delivery platforms both stated that they had initially attempted to start out with full employment contracts, but needed to switch to the freelance model. One executive noted that capturing rider services with the Rwanda Revenue Authority’s electronic billing machine posed an initial technical challenge. When this was resolved, the solution that would allow for full employment contracts ended up increasing the cost of every delivery by 30%. The platform held focus group discussions with clients to determine how much of this could be passed on, then took these options into discussions with the riders at the time, and it was agreed that the riders would be better off working as freelancers than to incur these deductions as employees (personal communication, March 2022, Kigali). The executive of the third delivery platform concurred:

“We initially started with fulltime employees, and it was really costly to implement that, so there is no business model there. And then we switched back to a minimum-guarantee-warrant, or a guaranteed minimum salary. They earn from the delivery rides, and if they don’t earn the minimum, we do a top-up, on which we do pay the withholding tax as well. That is what is sustainable in this market”
(personal communication, March 2022, Kigali).

Both platform executives agreed that a problem with this return to the freelance model was that, even though the move was based on a consensus with the riders at the time, many of Kigali’s moto taxi riders today still seem to be under the impression that switching to delivery platforms can secure them both full employment contracts and higher incomes, whereas in reality, it can only be one or the other.

Lastly, findings were mixed, regarding Yego CEO Karanvir Singh’s idea of a GoJek-type platform that could bring ever more services to the platform and thus allow workers greater freedoms to choose their own career paths within the platform.

Currently, the GoR’s close involvement makes Rwanda’s taxi and delivery service markets at once better governed than elsewhere, but also more rigid. The switch from taxi to delivery riding during the pandemic was a one-time occurrence that involved significant paperwork for the riders. According to the CEO of one of the platforms, switching back and forth, either between types of services, or between providers of the same service, is prohibited in the Rwandan context. A driver for Yego Cab, for example, cannot also be hired by VW Move. And for the delivery platforms, riders with mounted delivery boxes are strictly prohibited from squeezing a passenger between themselves and their box.²⁸ Nor are riders allowed to deliver for other platforms or for independent restaurants:

“every food delivery company in this country has their own brand boxes, so we are not allowing our drivers to pick up some other company’s food ... and normally they don’t do it, because everyone has their own, enough, riders so they don’t want to clash with other companies ... we have legal rights to complain in the Investigation Bureau and they take actions” (personal communication, October 2021, telephone).

These findings suggest that Kigali’s ride-hailing and delivery platform economy is still in its earliest stages. The platforms do not offer riders the entrepreneurial flexibility of freelancers. And the ecosystem seems to be several innovations and legal reforms away from the aspirational idea of bringing riders more job security, career development, and skills diversification. Thus far, the platforms have been single-service apps with clear demands on riders, high attrition rates, and limited feedback mechanisms.

The task of moto rider also remains male-dominated. A recent course trained some 200 female moto riders and has resulted in only four licensed graduates, of whom only one ended up working as a moto taxi rider. Cultural norms and gender roles may play a role, as virtually no women riders exist in the moto food delivery services either ([Kawera, 2022](#)). Even Kasha, an e-commerce platform in Kigali whose sole purpose is women’s empowerment, also has no female moto riders (personal communication, Kasha CEO Joanna Bichsel, November 2021).²⁹ The idea that other services, potentially more accessible to women – such as grocery picking, cooking, hair styling, cleaning, wellness, fitness, massages, or banking – could soon enter the platforms and thus merge the ride-hailing and delivery services with a host of other services currently seems far off in the future.

²⁸ This traffic law is not unique to Rwanda; it also exists, for example, in Nairobi, Kenya.

²⁹ Kasha is a drug store and online pharmacy that was founded with the sole purpose of bringing contraceptives and menstrual health products to women confidentially, in sealed boxes. Female delivery riders, if accessible, could add value to Kasha’s business model ([Kawera, 2022](#)).

4.3.1 Immediate Policy Recommendations for Delivery Platform Services

It seems not feasible to force fledgling delivery platforms such as Vuba Vuba, Rush Foods, or Yego Delivery to provide their workers with employment contracts, considering the small margins and the limited market in which they operate. But the platforms can be:

- reminded that freelance workers cannot be punished for freelancing, or otherwise making use of their rights to worker-controlled flexibility;
- urged to communicate more clearly to new riders that they will remain freelancers when switching from moto taxi to delivery platforms;
- asked to show greater responsiveness to worker representatives; and
- discouraged from strategically deploying false promises that induce attrition of the more senior drivers and thus weaken interest group formation of workers.

5 Scenarios for Rwanda's Future of Ride-Hailing and Delivery Platforms

What will be the direction of Rwanda's publicly steered urban platforms in the coming seven years until 2030? To set the frame for the study's policy recommendations, this section outlines three broad scenarios ([Börjeson et al., 2006](#)): a failed take-off, a narrow and unfair take-off, and a full take-off.

Failed Take-off: In Rwanda's context of low crime and low aggregate demand, fare-price setting by the regulator may fail to be nimble enough to ever hit the exact price point at which the platform model will be widely accepted and used in Kigali. The public-private partnership model of providing ride-hailing as a public utility would fail to roll out. The informal, analogue taxicab and moto-taxi industry would remain the more lucrative alternative. The GoR could find a digital alternative to the unruly moto riders, such as an expanded bus system, and could outlaw the use of moto taxis altogether. In the delivery platform services, meanwhile, ever more riders in search of work could allow delivery platform companies to use high attrition rates among delivery riders to keep wages low and work agreements informal and at arms-length.

Narrow and unfair take-off: If the public-utility platform model is responsive to price signals and/or the regulator successfully deters illegal off-platform competition, then the platforms could become the only way to use taxicabs or moto taxis in Kigali. But if the regulator is then slow to respond to changes in supply and demand, this would suppress transactions, leading to fewer fares. If prices were too high, more passengers would opt for less convenient alternatives, such as walking to work. If prices were too low, drivers would have difficulties to make a living and would need to find other ways to make ends meet. This could lead riders to engage in criminal activities to make up for their lost incomes. In this scenario, the forced platform use would have the opposite of the intended effect of making the mobility sector more transparent and streets safer. To steer against this wave of illicit activities, the regulators could be tempted to make indiscriminate and unfettered use of the platform's access to trip data. This could lead to illegitimate surveillance of all drivers (and their passengers) and to arbitrary persecutions. Meanwhile, for delivery platform services, the exodus of moto-taxi riders would lead to further oversupply of delivery riders. And delivery riders would have few choices but to comply with the terms set by the platform.

If the idea of a GoJek-type multi-service platform were to take off, this alone need not have a positive effect on the workers in the urban services sector. To the contrary, the male-dominated and precarious task of moto-taxi and delivery riding could expand and crowd out workers in more stable and more equitable urban service sectors. Particularly in the urban retail sector, where 60% of workers are women, stably employed (female) store clerks would be replaced by gig-working (male) delivery drivers. And (female) entrepreneurs, who often own food stalls, kiosks, clothing stores, hair salons, nail studios, massage parlours, nurseries, or cleaning services could all be forced to close their businesses as their former employees would now be made dependent on one single platform. In this context, the data collected by the platform also need not be net beneficial for the public, as it can be used to gain a competitive advantage over the many decentralized micro and small enterprises. Customers could be increasingly manipulated via targeted advertisements, and workers could be controlled and exploited by improved algorithmic oversight.

Full Take-off: If the public utility platform model takes off in Rwanda, and if the GoR is responsive to new innovations, drivers could start to use platforms to diversify their skills and the services they provide. Other e-commerce or e-service providers could also benefit, such as (female) retailers, if the platforms could gradually formalize the urban mobility and delivery sector, and if the platforms could institutionalize contractual agreements and grievance addressal mechanisms for workers. A transparent regulatory framework could prevent arbitrary surveillance of riders and passengers. And in urban platform services, retail, delivery, and passenger transportation could become one digital marketplace that merges e-commerce, food delivery platforms, and ride-hailing platforms. This trend can benefit the riders who work in these sectors. Such platforms tend to make the lives of customers much easier. By lowering various transaction costs, the services they buy become more affordable. This opens new opportunities for work and professional development. A drivers' license need not be the end of a driver's personal development; it can be the first of a series of certificates on the career-ladder. Potentially, each of Kigali's 26,000 professional moto-taxi drivers could at once become a parcel deliverer, a mobile bank teller, a loan officer, a pharmaceutical courier, and the transporter for a host of other service providers like hairdressers, home cleaners, grocery pickers, nannies, or midwives. The *raison d'être* of the Yego platform is to collect and analyse data on the latent demand for such services (personal communication, Karanvir Singh, October 2021, telephone). Transactions grow when trades are more efficient (think of fewer people standing in line), more transparent (think of everyone always knowing the going market rate for any good or service), and safer (think of buyers and sellers knowing each other's trading histories). As the platform collects all sorts of data, its algorithms can discover new areas for trade – new markets. As transactions tend to be positive-sum games, having more of them leads to economic growth and wealthier societies with more job opportunities – for the mostly male drivers directly, but also for retailers and other service providers who are often women. The close collaboration between the platforms and the regulator could lead to better feedback channels, formal secure working conditions, safer streets, and higher tax revenues for the GoR.

6 Policy Recommendations for Ride-Hailing and Delivery App Services

What can the GoR and its partners do to steer the country towards the full take-off (positive scenario) while avoiding all the pitfalls depicted in the failed or narrow and unfair take-off (negative scenarios)?

Rwanda is treading carefully into the platform economy. Unlike other East African countries, where governments have taken *laissez faire* stances of letting several global platforms battle for market share, the GoR has always treated domestic platforms like public utilities, and actively shaped the market. In direct partnership with the licensed ride-hailing

platforms, Rwanda's regulatory authority sets fare prices, strictly limits platform tariffs to a minimum, and makes platform use mandatory. These interventions, when implemented correctly, can increase the incomes of drivers. The close involvement by the GoR pre-empts many of the downsides observed globally in the ride-hailing platform economy. In this light, Rwanda's public-private partnership may turn into a good practice case study for the rest of the world on how to make the best of the platform economy. But a few notes of caution are in order.

Price sensitivity: The immediate roll-out of the mandatory platform use can be good for drivers and passengers. But in the transition to an all-digitially mediated transport sector, the mandated fare prices need to mirror fare prices that would have been set by the market. If the GoR makes fares slightly *more* expensive (as is the case with taxicabs), many passengers will insist on off-meter fares. If the GoR makes fares slightly *less* expensive (as is the case with motorcycle taxis), many drivers tend to insist on off-meter fares. Either way, a black market emerges that leaves platform drivers with fewer fares, lower incomes, and disgruntled with their predicament of having to either break the law themselves or risk losing out to illegal competition. The GoR should continuously reassess how accurately fare prices are mirroring the market price signal of supply and demand, and be prepared to adjust fare prices regularly.

Support schemes: As coercion against illegal drivers alone will not suffice, loyal platform drivers could be helped through this period of transition with direct subsidies – such as slightly lower tax rates, permit costs, and more affordable insurance packages. Drivers can also be supported with technical schemes that do not necessarily entail forgone revenue for the government. An example could be slightly increased platform fees that are used to pay drivers' insurance fees and permits (drivers might prefer such savings schemes to large annual payments).

Communication on worker rights and opportunities: In the context of coerced platform use, a first question would be whether under the Rwandan Labour Law ([GoR, 2018](#)), taxicab drivers, moto taxi and delivery riders could be legally entitled to employment contracts with the platforms. Such a legal inquiry goes beyond the realm of this study, but several practices, such as price setting, are at the heart of the European legal debate around food courier platform employment statuses. Platforms such as Yego Moto alone would not be able to gainfully employ Kigali's 26,000 moto taxi riders, but short of full employment contracts, the regulator could clarify which rights and duties are entailed in arms-length relationships between platforms who provide meters and drivers who act as independent contractors. Where future trajectories exist for worker development – into more permanent employment or into new and more sophisticated roles via additional certificates – these should be explored. If clearly articulated by the platforms and the regulator, this could help drivers map their career trajectories and could reduce attrition rates.

Worker representation: Collective action channels for workers do exist but can be improved. For the purely privately operating delivery platforms, worker representatives could be supported by state media outlets. For worker representatives who convey negative feedback to the public-private partnership platforms or to government directly, an ombudsman could ensure these messengers of their insulation from negative backlashes against these individuals personally. A taxi riders' federation, mentioned by the discussants, has been confronted with allegations of corruption ([Ufitiwabo, 2022c](#)). But a regular round table with the media and drivers could help give a clean feedback loop from the ground to Yego Moto, RURA, and the public. If riders currently have no representatives, then monthly anonymised focus group discussions with any groups of riders could already be insightful (venue-based sampling would suffice).

Other suggestions, such as improved technical issues (making the phones more legible in the sun, improving the internet connectivity, or supporting drivers with airtime), could be derived freshly from these regular focus groups.

Data protection: The platforms and the regulator should make transparent which kinds of data are collected by the platform and passed on to whom, especially in such a model of close collaboration between the platform and the executive branch of government. An independent oversight body might be a first step to safeguard citizen rights to data privacy.

New partnership for women moto rider jobs: One direct recommendation for development partners interested in supporting women's participation in the mobility and delivery sector is to explore a potential collaboration with [Kasha](#), a fast-growing e-commerce platform and online pharmacy. For Kasha – whose *raison detre* is the confidential delivery of contraceptives and other intimate health products to women – employing female delivery drivers would be an added value to the heart of the company's business model. Kasha's founder and CEO has uttered an interest in a female rider training program (personal communication, Joanna Bichsel, November 2021 & June 2022).

Study II:

Exporting IT-Enabled Services from Rwanda to the World – Online Labour Platforms & Global Business Services (GBS)

1 IT-enabled Services in the Global Context

Beginning in early 2020, the global health crisis called for social distancing measures which led to massive work-from-home arrangements around the world that would not have been possible, technologically, a decade earlier. As phrases like ‘Zoom link,’ ‘Teams room,’ and ‘you’re still on mute!’ crept into daily parlance, white-collar work has moved into a borderless digital realm. This is not to say that geography no longer matters. To the contrary: Over the last two decades, as satellites and fibre optic cables have brought the world closer together as one virtual realm, knowledge workers have nonetheless physically moved closer to one another. Rising real-estate costs in the most sought-after clusters of global knowledge-work attest to this ([Leamer, 2007](#)). Physical proximity has long driven knowledge spillovers within and between industries (Jacobs, 1969; [Glaeser et al., 1992](#)). And this is mirrored in office work, where internships lead to jobs, and where water coolers and cafeterias are places of real information exchanges (Warzel & Petersen, 2021). Even a tech cluster like Palo Alto, whose companies often strive to turn the world into one virtual network, has been found to be a distinctly analogue, physical, face-to-face meeting place with regard to freely sharing ideas and innovations with whomever happens to be physically present (Saxenian, 1996; Keese, 2014). Most peculiarly, this clustering pattern is also reflected in the emerging findings from online labour platforms: Online workers do tend to work from home, but their homes tend to be near one another. Braesemann et al. ([2021](#)) first found the agglomeration trend bucked by skilled rural online workers. But this, too, happened in suburban clusters of online workers, in the US, and more defined in the Global South, where online work tasks are performed within distinct geographic clusters. Qualitative evidence from Kenya corroborates this, showing that most online workers there perform the same task from the same tightknit geography, an otherwise non-distinct northern suburb of Nairobi ([Melia, 2020](#)).

This implies that, for most people, a computer and a fast internet connection alone will not suffice for increasing one’s productivity and innovation capabilities by conducting digital work, by themselves, from anywhere for anyone. Still necessary seems to be the face-to-face interaction, particularly between more and less experienced workers in a given task (Stroper & Venables, 2004; Atkin et al., 2021).

But new *clusters* of digital work do emerge. And exporting services digitally can be viewed as a great opportunity ([Dossani & Kenney, 2007](#); [Baldwin & Forslid, 2020](#); [Baldwin et al., 2021](#)), especially for a landlocked country like Rwanda ([MINECOFIN, 2020](#)).

Two different delivery channels for digital services are often distinguished – online platform work (which is often conducted informally by individual freelancers), and global business services (GBS), also known classically as business process outsourcing (BPO), where firms formally employ workers to conduct outsourced/offshored services. In the following, we examine both channels in turn. As this digital cloud services sector is laced with new and often overlapping terminology and acronyms, the Glossary Box in the Annexure provides an overview of terms and concepts.

2 Online Platform Work in the African Context

Online labour platforms emerged in the late 1990s as two-sided marketplaces that allow buyers and sellers of digital service tasks to meet and transact (Evans & Schmalensee, 2016; Rochet & Tirole, 2003). Early platforms were Elance and oDesk (today Upwork), and typical tasks were in programming, but also in text digitization, web design, or transcription. Amazon Mechanical Turk (AMT) then specialized in micro-tasks, such as image tagging or answering short survey questions. Throughout the 2010s, the sector grew and diversified in tasks (from video captioning, to search engine optimisation, to product reviews, to virtual assistance, to lead generation, to marketing, and others), and online work platforms proliferated on generalist platforms (such as Fiverr, Freelancer.com, Guru, Peopleperhour, or Upwork), and on specialized platforms, such as Rev.com for transcription, or others for semilegal tasks such as ghost-writing of student academic papers or virtual sex work. Kässi et al. (2021) found 353 platforms and have estimated that altogether roughly 163 million online labour platform worker accounts exist, of which some 14 million (9%) have ever earned money. Of these, “3.3 million have completed at least 10 projects or earned at least \$1,000” (Kässi et al., 2021, p. 1). This means that around 2% of platform account holders can be assumed to be regular online earners.³⁰

A particular feature of global online labour platforms is that they can allow individuals from the Global South to compete in global markets because the platforms’ institutions now allow global clients to find and trust far-flung providers across the world. The reasoning is that the platform makes transparent how much previous effort a service provider has put into building up and maintaining her reputation and hence would have little incentive to deceive on one single transaction and risk losing future opportunities on the platform (Lehdonvirta et al., 2019).³¹

The notion has long existed in the literature that the internet and online platforms spread out access around the globe, effectively opening digital global labour markets to anyone with an internet connection, regardless of their location (Cairncross, 2001; Friedman, 2005; Kuek et al., 2015; Baldwin, 2019). And to some extent, online labour platforms are now making this happen: more service work is digitized and trickles onto the internet and, once there, it streams from the Global North to the Global South (Lehdonvirta et al., 2019). After the sector sprang to life in exponential spikes in the 2000s (from a very low base), the Oxford/ILO Online Labour Observatory now gauges 11% annual growth of online platform work between 2016 and 2021 (Stephany et al., 2021). Most of the demand for this work comes from countries in the Global North, and most of the supply of this work is conducted by workers in countries in the Global South. Yet this has not had the ‘flattening’ effect of global labour markets that some had anticipated. The regional distribution of online work is highly skewed: by one measure, nearly 60% of all online work is conducted in three countries – India, Bangladesh, and Pakistan (Kässi et al., 2021).³² A few African countries also feature prominently on online labour platforms: Egyptians conduct around 1.5% of the world’s online labour and Kenyans conduct around 1.4%. Due to the skew towards the top three countries on the Indian subcontinent, these small percentages already put both Egypt and Kenya within the world’s top-twelve countries globally for online work. Based on 2018 data, initial findings for Kenya suggest that some 36,000 online platform workers earn between USD200 to USD300 monthly in various roles as digital freelancers (Melia & Kässi, 2020). This is about the same as the entry-level earnings of Kenyan BPO/GBS sector workers (survey conducted by author on

³⁰ With the error band this figure could be as low as 0.1% (163,000 successfully earning online workers) or as high as 10% (16.3 million successfully earning online workers) (Kässi et al., 2021, p. 6). For earlier estimates of the size of the online platform work sector, see Heeks (2019), Kuek et al. (2015).

³¹ For further reading on online platform work, see Huws, 2017; Graham et al., 2017; Heeks, 2017.

³² This is based data from on three of the largest global online labour platforms. Another measure (based on one large platform) finds the work slightly more spread out, but here too, “more than 50 % of all online labour projects have been conducted by platform workers from just five countries (India, Pakistan, Philippines, United States, Bangladesh)” (Kässi et al., 2021, p. 4).

behalf of Generation Kenya, 2020; [Sama, 2022](#); personal communication, Sven de Caeter, Majorel Kenya country director, February 2022, telephone).

In terms of gender equity, the flexibility of online labour could, in theory, make the sector convenient for anyone who is in a position of having to combine unpaid home and care work with income-generating activities.³³ But preliminary findings for Kenya suggest that only some 22% of online workers in that country are women (Melia & Kässi, 2020; [Melia, 2020](#)).³⁴

After Egypt and Kenya, much less activity can be identified across Africa. Some online work is found in Nigeria (0.6% of global tasks), Morocco (0.3%), and South Africa (0.2%). But most African countries hardly register in the data, and for more than half the countries (28 countries), including Rwanda, the numbers of online workers are so small (below 0.000% of global tasks completed) that they have not yet appeared on the global map of online labour.³⁵

For many African countries, it may be a matter of time and connectivity improvements before more youths appear on online labour platforms. Some are doubtlessly already there but using software to hide their physical locations, thus appearing in the data to be working online from the UK or USA (e.g., see [Melia, 2020](#)).³⁶ In Rwanda, mobile internet has been more widely accessible than in most other African countries for several years, as nearly all of Rwanda's landmass is covered by 4G/LTE network ([GSMA, n.d. a](#)). A few reasons could explain the absence of Rwandans on global online labour platforms.

One explanation could be Rwanda's particular combination of strong governance ([World Bank, 2020b](#)) and comparably low human capital ([World Bank, 2020a](#)). Unlike in larger African economies, where many university graduates cannot find work domestically and thus welcome the chance to work on platforms, in Rwanda, until recently, the few who *could* perform online work tasks have almost always found better paying jobs in the domestic economy (personal communication, ICT Chamber, November 2017, Kigali). While in other low- and lower-middle income countries the state's unpredictability and corruption is often a hinderance for investments, leaving local talent idle, Rwanda's situation is the opposite: strong governance provides a level of stability, reliability, and infrastructure that attracts investors who would not have come to Rwanda based on its human capital alone. Thus, in contrast to a country like Kenya, strong tertiary-educated youths in Rwanda have for long been undersupplied in the local market. This has led to a situation in which most Rwandans still lacked the capacity to perform online platform tasks, while the few who had the capacity lacked the incentive. Online work was thus not as attractive in Rwanda as in other countries.³⁷

Another explanation could be that online work grows in clusters (e.g., in Bangladesh and in Kenya), and Rwanda is still a low-income country with a comparatively small population. Lamenting Rwanda's lack of online work when compared to Kenya's, the *one* Sub-Saharan country with a significant cluster of online workers, would be like lamenting Nepal's lack of

³³ The assumed 'convenience' that online work can be conducted from home may not always be a tool for women empowerment, as in traditionally patriarchal societies, this can be used as another instrument for keeping women in the home. This has been found in more mature markets, such as India (e.g., see [Dewan et al., 2022](#)).

³⁴ These are preliminary findings, because the low female participation could be skewed by the snowball sampling method used in this particular study. Alternative snowball tracks that originated with more females, could have led down slopes more populated by clusters of female workers (personal communication, Patricia Kingori, August 2020, Oxford).

³⁵ These percentages fluctuate. The figures used here are based on the average share of online worker accounts, globally, that have earned money between 10 April and 10 May 2021 on one of the three largest online labour platforms. Between 10-20 times more accounts exist (since only between 4%-9% of the accounts ever earn money). These figures are based on data collected for the Online Labour Index at the Oxford Internet Institute. We thank Otto Kässi for making this data available. When comparing African countries' shares of online work, another metric would be to compare not the number of transactions but their financial volume (see e.g., [Braesemann et al., 2021](#)). By that metric, South Africa (a much richer country) ranks slightly higher than Kenya on one of the largest global platforms.

³⁶ Online workers from Kenya have been found to use virtual private networks (VPNs) or remoted desktop protocols (RDPs) to conceal their African IP addresses (i) clients seem more responsive to service providers from the Global North, (ii) platforms do not allow workers from certain regions (e.g., non-native English countries).

³⁷ This skeptical sentiment towards online labour for Rwandans is based on earlier interviews, conducted between 2015-2019 with facilitators of Kigali-based tech labs, incubators and the ICT Chamber of the Rwanda Private Sector Federation, and Kigali-based hotels (where employee tasks are comparable to front-office work), and Kigali-based consultancies (where employee tasks are comparable to back-office work). Anecdotal evidence suggests that these sentiments may be changing in the 2020s (see below).

online work (0.1% of global online work tasks) when compared to Bangladesh's outstanding success (14% of global online work tasks). Nepal, too, can export digital services. In 2010, CloudFactory, one of the world's first impact sourcing service providers, began its operations in Kathmandu, and Nepal has since become a growing exporter of data labelling services for global machine learning companies (personal communication, Mark Sears, CEO, Cloud Factory, 2019, telephone).

The most straightforward explanation seems to be that a few basic factors are still missing in Rwanda: Infrastructurally, online work tends to be difficult to conduct via mobile phones, it usually requires laptops and landlines (Melia et al., 2019). While Rwanda's mobile connectivity coverage has been ranked highly in global indices, landline connections have been less accessible than in Kenya (ITU, 2019). Crucially, the most widely used payment method on online labour platforms is PayPal, a service that is to date not available in Rwanda, which makes it much more difficult for Rwandans to earn money online. Lastly, online labour platforms and the tasks they offer are themselves only in their infancy, and most require English as the working language. Compared to larger multi-lingual countries such as Kenya, Ghana, or Nigeria, where urban elites often feel the need to converse in English, everyone in Rwanda speaks Kinyarwanda, which makes it the default language for all (personal communication, stakeholder workshop, Kigali, November 2021).

Rwandans may thus excel at tasks that are only now becoming available on platforms that are only now becoming accessible from Rwanda. As the Rwandan population, economy, and infrastructural connectivity all continue to grow, none of the above factors remain unchanged. The cohorts of Rwandan university graduates may now be outgrowing local opportunities and may try their luck at becoming digital entrepreneurs on online labour platforms. As Rwanda has attracted elite institutions for software development – e.g., Carnegie Mellon University or Andela – Rwanda's top developers are now more often found busy with lucrative side gigs on global online labour platforms (personal communication, Mike Ndimurukundo, Andela country director, March 2022, Kigali).

Rwanda's tight governance may also open doors to global markets that are closed to other countries for cybersecurity reasons. It is, for example, unlikely that an underground cluster of deviant online workers could emerge in Rwanda against the will of its government – such as email phishing in Nigeria (Smith, 2007) or student academic ghost-writing in Kenya (Melia, 2020). Hence, unlike other African countries, global online labour platforms in Rwanda will not have the immediate effect of a labour-market release valve for underemployed youths who could otherwise become politically destructive. Instead, over time, Rwandans could develop a comparative advantage in certain tasks on online labour platforms, tasks demanding levels of cybersecurity that other low- and lower-middle income countries cannot provide.³⁸

From the perspective of creating immediate income opportunities, such online platform work can open doors to global markets that were hitherto closed to many Rwandans. Various facets of these opportunities have been discussed in the literature (Kuek et al., 2015; Lehdonvirta et al., 2019; Melia, 2020). But it is unclear what aspects of globalization have allowed countries, firms, and workers to move up the value ladder. If it was merely the inclusion into global markets and production networks, and the exposure this provided, then online labour platforms can speed up that process. In a positive scenario, online workers can seek out and find the types of jobs they excel at and can be quick to link up with digital-era teams of experts, thus cutting out intermediaries and leading to faster knowledge transfers from North to South (for this discussion, see Melia, 2020).

³⁸ As place-based work platforms grow in Rwanda (see above), and a Global Business Services sector emerges (see below), new forms of digital services exports could also emerge. Perhaps as early as 2030, the two types of platform services – place-based and cloud-based – could merge in some sectors. One futuristic example of this has been alluded to in the literature: fleets of semi-autonomous vehicles in the Global North could be overseen by control rooms of virtual fleet pilots in the Global South, where experienced drivers have become remote traffic coordinators (Ford, 2015; Lehdonvirta, 2018; Baldwin, 2019). At that time, Rwandan taxi app drivers could be retrained for this new task. As Rwanda is already known as a reliable partner, e.g., in supplying disciplined troops to UN peace-keeping missions, the GoR could be able to guarantee military-grade levels of cybersecurity, reliable digital infrastructure, and disciplined focus on behalf of Rwandan fleet pilots.

Yet, the knowledge transfer that comes with globalization can also involve a division of labour that looks more like a zero-sum game between those at the technological frontier and those far away from it. If firms in the Global North are not interested in transferring their valuable knowledge to the Global South, but merely seek to outsource the most mundane work tasks for a short while, then the emergence of online labour platforms can have a negative effect on the upward mobility of workers, firms, and countries in the Global South. This negative effect can come in three forms: First, for worker skill-development in the Global South, platforms can undermine individual workers' career trajectories if tasks can be broken down into smaller, less complex components of work, as this commodification of tasks can put the workers who master them no closer to the global knowledge economy, but rather at risk of soon losing their jobs to automation ([Wood et al., 2019](#)). Second, for worker rights, the geographical dispersion of online platform workers across the globe can make it harder to unionise and act collectively for better working conditions and better options for career trajectories ([Anwar & Graham, 2020](#)). Third, the knowledge transfer that came with globalized manufacturing went beyond increased individual workers' technical capabilities at given tasks, as it also appeared in the form of increased collective organizational capabilities of factory floor units, firms, and local production networks in tight geographic clusters ([Khan, 2019](#)). As some online labour platforms now aim to split hitherto complex services into small bits of identical micro tasks that can then be dispersed across the world, this can delay the emergence of new productive geographic clusters in the Global South. In a negative scenario, each of these transfer processes – individual worker skills, collective worker organisation, firm cluster capabilities – could be undermined by the platformisation of global labour markets.

The real-world effects of online labour platforms will most likely lie somewhere in between these extreme scenarios. Hence, policy recommendations for Rwanda would be to embrace the emergence of global online labour platforms in ways that take advantage of their possibilities, while also remaining cautious of the platforms' potential downsides and engaging with and developing new ways to improve the conditions in the emerging world of platforms (e.g., see [Fairwork, 2022](#)).

One concrete way to better steer the knowledge transfer and organisational capacity of digital services, is to bring larger segments of cloud-work value chains to a Global-South location. This is the realm of the Global Business Services (GBS) sector – also known as Business Process Outsourcing (BPO). Despite the newer form of conducting digital services via online labour platforms, GBS remain the dominant form of employment in IT-enabled services (ITES) offshoring. Early estimates of the direction of online platform work held that up to 25% of the GBS sector could be taken over by online labour platforms by 2025 ([Kuek et al., 2015](#), p. 23). Yet, so far, the numbers of employees in the formal GBS sector have grown at similar rates, and holds at least ten times more fulltime-equivalent workers than the online platform economy holds actively earning freelancers. Hence, the rest of this study focuses on the formal GBS sector.

3 Global Business Services – An Elevator Sector for Rwanda?

Historically, digital services exports from the Global South to the Global North began most prominently in the 1990s in India, and in the 2000s in the Philippines, and were traditionally associated with the least complex IT support and call centre work (see the Glossary Box for an overview of the terminology used in the Annex). Today, this work is still clustered

in India, with some 4.47 million employees ([MEITY, 2021](#)), and in the Philippines with some 1.42 million employees (IBPAP, 2022).³⁹

This division of labour was reminiscent of an earlier globalization wave in manufacturing where global value chains allowed multinationals to offshore the most labour-intensive parts of production to lower wage countries in Asia. As that process seems to have contributed significantly to the East Asian growth miracles ([Matsuyama, 1992](#); [Hausmann et al., 2007](#)), observers of the GBS sector drew a parallel, proclaiming GBS offshoring the “next wave of globalization” ([Dossani & Kenney, 2007](#)). Yet, as in the manufacturing sector, which grew in clusters in East Asia ([Haraguchi et al., 2017](#)), the GBS sector has grown in clusters in South- and South-East Asia. And here, merely coupling to global value chains did not guarantee catch-up development. Significant value chain governance may be required to induce knowledge spill-overs and upgrading processes from mere production capabilities to innovation capabilities ([Altenburg et al., 2008](#); [Ohno, 2010](#)). This seems true for both manufacturing and ITES exports.

Comparing the GBS sector trajectories in India, the Philippines, and Kenya, Kleibert & Mann (2020) caution that while India’s GBS sector did achieve job creation and upgrading from production capabilities to innovation capabilities (e.g., from placing marketing calls to developing software), the Philippines did create many GBS sector jobs, but seemed less able to emulate the upgrading, and hence remained with mostly lower-end call service tasks ([Kleibert & Mann, 2020](#)). Kenya was unable to emulate either of the two: After attempting roughly from 2005 to 2012 to break into global markets, Kenyan GBS firms closed their doors or turned to serving the domestic market ([Kleibert & Mann, 2020](#); [Mann & Graham, 2016](#); Melia, 2020).

Thus, two challenges exist: (i) the ‘Kenya challenge’ of breaking into the global ITES sector, and (ii) the ‘Philippines’ challenge’ of using the sector not just for temporary job creation but also for catch-up development – upgrading towards the global technological frontier. Enough literature exists that addresses both challenges. For Rwanda, where the GBS cluster is in its infancy, the ‘Philippines’ problem’ seems far off in the future. But both problems should be addressed from the outset.

Before Rwanda invests more in becoming a new GBS cluster, it should be clarified not only how many jobs but *what kinds* of jobs this sector provides, and what trajectories exist in the GBS sector in the future. Hence, the questions we need to examine are: Could the GBS sector lead to local firm growth into a knowledge cluster in Rwanda, or would it merely be a temporary location for footloose multinationals – delivering their least stimulating work tasks from Rwanda for a few years until they either found a cheaper location or managed to automate those tasks out of existence? What kinds of jobs would these be, decent jobs, with career growth trajectories, or dull, repetitive jobs, at risk of being automated away? If they are indeed decent and sustainable jobs, and if this were to come to fruition, *how many* jobs could the GBS sector generate by 2030 in Rwanda? Since new clusters are difficult to spark to life, what are Rwanda’s realistic chances of establishing a GBS cluster? Lastly, what would it cost the Government of Rwanda, in terms of subsidies or forgone revenue to try to promote such a cluster of GBS firms? These questions are discussed in various strands of the literature.⁴⁰ Combining a review of this literature with our primary findings for Rwanda, the following sections set out to answer these questions in turn.

³⁹ The size of the GBS sector worldwide is difficult to estimate since various subsectors overlap into other sectors and different accounting methods exist between countries (e.g., [Dossani & Kenney 2007](#), p. 773). But anecdotal evidence suggests that several other countries around the world – including Egypt, South Africa, and Morocco – have seen significant growth of the GBS sector throughout the 2010s and early 2020s (see Section 4.1 below).

⁴⁰ This literature cuts across different disciplines and research areas: e.g., economic clustering and agglomeration in economic geography literature; worker rights and protection in labour economics literature; technological unemployment in the future-of-work literature; or industrial policy in political economy and economic development literature.

3.1 Temporary Click-Farms or Permanent Growth Sector for Catchup Development?

Integrating into global value chains can lead to fast catchup development, but a conundrum exists: firms from the Global North that compete at the knowledge frontier tend to be more productive and more innovative than firms from the Global South that do not compete globally; but while firms from the Global North are happy to offload their mundane work tasks to the Global South, they have no incentive to initiate significant knowledge spill-overs in their core business areas. In other words, lead firms in global value chains (GVCs) from the Global North will want their partners in the Global South to become more *productive*, but not necessarily more *innovative*. This is why some in the literature emphasise the importance of building up local firms, ‘national champions’ (Ohno, 2010), over hoping for knowledge transfers from foreign direct investment (FDI) that may never occur (Stiglitz & Greenwald, 2014).

But Ramachandran & Pant (2010) have shown for India that the conundrum in the global IT&ITES sector is that even large companies from the Global South have great difficulties breaking into global markets. This liability of a firm’s origin may in part be due to lower levels of productivity, institutions, or education, but Ramachandran & Pant (2010) point to a lack of trust in Global-North markets towards Global-South companies, who, by dint of being unknown, start collectively with bad reputations, even when this is undeserved for the individual firm.

In interviews with managing employees of Kenya’s first local GBS firm, KenCall, a national champion, such lack of trust for an unknown GBS firm from an unknown geography was cited as a major reason for KenCall’s failure to expand its portfolio of global contracts (personal communication, June 2015, and October 2018, Nairobi). KenCall never exceeded 500 employees, turned to serving domestic clients (Mann & Graham, 2016), and eventually remained with some 250 employees after 2015.

Yet, by 2022, Kenya seems to be breaking into global markets with ease, as Majorel, a large multinational GBS firm headquartered in Germany, and CCI, a mid-sized multinational GBS firm headquartered in Dubai, have both set up in Kenya and have brought global contracts along with them. Such multinationals, if incorporated in high-income countries and operating in multiple locations across the world, tend to be trusted by their clients and thus absorb the lack of trust in a new delivery location. In June of 2022, less than 18 months after entering Kenya, Majorel had 920 employees and CCI had 2,500 employees in Nairobi (personal communication with Majorel executive, September 2021, Gütersloh, Majorel Kenya Country Director, June 2022, telephone; and with CCI CEO, March 2022, Kigali, London-based consultant, June 2022, telephone).

Since the Nairobi cluster is just now emerging, Cape Town, South Africa, is a more insightful case study. In 2009, Amazon set up a first captive (in-house) contact centre in Cape Town, bringing many of its first agents in from Europe. This demonstrated that Cape Town was a viable delivery location, with the infrastructure, and ecosystem needed to provide global business services. This put South Africa on the radar of GBS firms. The defining moment for South Africa’s GBS sector then came in 2010, when Kenya’s national champion struggled to break into global markets. South Africa attracted two multinational GBS firms – Circo and Capita – to set up new delivery locations in Cape Town at around the same time, starting with about 1,000 and 750 employees, respectively. Today, Circo (with Webhelp) has some 6,000 employees in South Africa, and Capita has some 3,500. More importantly, this was the origin of South Africa’s broader GBS industry, which today has an estimated 261,000 to 270,000 employees, spread across Cape Town, Johannesburg, Pretoria, and Durban.⁴¹ Of

⁴¹ Tentative estimates by GBS World & Genesis (2022) (based on 140 interviews with industry insiders) are that the highest numbers of GBS sector workers in other African countries (serving either the global or the domestic market) are: 240,000 in Egypt; 86,000 in Tunisia; 74,000 in Morocco; 23,000 in Kenya; 21,500 in Senegal; 16,540 in Nigeria; 13,000 in Mauritius; 13,400 in Zimbabwe. For Egypt, see also ITIDA & EY (2022), and Fricke (2022).

these, between 42,000 and 65,000 employees work in the export sector ([GBS World & Genesis, 2022](#); [Rajagopaul et al., 2020](#)). And the largest cluster of exporting firms is still in Cape Town, consisting of 35,000 employees. The Cape Town GBS cluster has managed a significant knowledge transfer and several local South African firms have diversified into more sophisticated GBS tasks (personal communication, David Rumble, August 2022, Gareth Pritchard, former CEO, CapeBPO, August 2021, telephone).

Thus, for Rwanda, the question seems not *whether* multinational GBS firms should be attracted, but rather how they can be attracted and *how* the knowledge transfer can then best be facilitated once they are in the country. A recent study of the South African GBS sector ([Keijser et al., 2021](#)) indicates how this knowledge transfer might be best initiated. Drawing on Altenburg's (2006) conceptualization of how global-value-chain (GVC) governance can spur economic development, Keijser et al., (2021) used a mix of interviews and survey data of 64 GBS executives to find that:

“GVC participation provides an avenue for developing country firms to enhance learning and capability building, as suggested in prior literature ... [and that] such GVC learning is strongly associated with the client's role in the exchange and training of personnel and also relates to local skill shortages” (p. 8).

The authors further note that:

“for capability building and innovation, not only the value chain environment is important, but also the innovation system in which firms are embedded (i.e. via merger & acquisitions, consultants, educational organizations, governmental organizations, conferences and industry associations)” (p. 9).

Their study concludes that in the GBS industry, less knowledge transfer tends to emerge from *control-based* relationships within the global value chain, where the contact between the lead-firm and the local ecosystem is shaped by arms-length communication, a high degree of monitoring, and a strong reliance on contractual stipulations. By contrast, more knowledge transfer, in the form of significant capability-building and innovation, emerges from *trust-based* relationships within the GVC. Trust-based relationships are rooted in a shared objective for local development, a longer-term commitment by the lead firm, and goodwill that goes beyond confidence in the local judicial system (formal laws) and stretches into an understanding of the local culture and value system (informal norms) ([Keijser et al., 2021](#)).

For Rwanda, where significant progress has already been made in providing a conducive investment climate (see Section 5 below), the best way to facilitate such trust-based governance within the GVC would be to start partnerships with GBS firms by forging close engagement with the executives of both the investing GBS companies and their client firms. Such engagement is best created in person, by inviting the executives to Rwanda to set out on a shared vision for generating a real social benefit in Rwanda – an ‘impact.’

‘Impact sourcing’ (see Glossary Box in the Annex) has, over the past decade, become an important part of many GBS firms’ value systems, and much common ground thus exists for establishing a joint vision for an impact-sourcing roadmap in a well-governed low-income country like Rwanda. GBS firms, their clients, and their clients’ customers are often interested in brand identities that stand not only for high-quality services, but also for high ethical standards. For several of these companies, being asked to help create a positive social objective in Rwanda would not be perceived as a tax but as an incentive (personal communication, various GBS executives and consultants).

To establish this trustful relationship, many of the building blocks are already in place in Rwanda. The GoR’s lead agency, the Rwanda Development Board (RDB), could extend its one-stop shop nature by coordinating the ecosystem and setting

up an industry association. It could also generate trust-based regional value chains with GBS firms who already operate in Egypt or South Africa.

One way in which trust-based value chain governance has begun in Rwanda lies in the ambition not to focus on competing only on the lowest possible wage levels, but to involve the GBS companies by giving them central roles in the training of personnel and thus in addressing local skill shortages together: for upskilling, the RDB, with a group of development partners and educational facilities has begun to weave an ecosystem to facilitate worker mobility up the skills ladder (personal correspondence, RDB officials, August 2021, March 2022, Kigali).

Concretely, the MasterCard Foundation has played a central role in funding training partners like Harambee or Education First to generate targeted demand-driven job training and placement programmes. Similarly, German Development Cooperation (GDC) has been funding, among other initiatives, the Digital Skills Accelerator Africa (DSAA), an association of digital service export firms that receive GDC support for closing the skills gap across Africa. The demand-driven approach puts the GBS firm in the centre of the upskilling process.

Demand-driven upskilling was put into practice when Tek Experts, the first GBS firm came to Rwanda in 2021. Tek Experts provides technical support to customers of global blue-chip companies and thus operates significantly above the lowest wage levels in the sector. This GBS firm's entry level salaries in Rwanda are on par with South African wage levels, more than three times higher, when compared to Rwanda's local contact centre salaries (see the next section below). This is in line with the Rwanda Vision 2050 plan for higher value addition tasks, but for this to be profitable, the skills gap needed to be closed, and Tek Experts, through its training entity, elev8, was tied in to lead this upskilling process. This was supported by Harambee and the MasterCard Foundation. Tek Experts also joined the DSAA to become eligible for targeted training funds. This firmly linked Tek Experts to the local ecosystem, aligning its own success metrics with the goal of local skills upgrading. The same process was initiated a year later with CCI, the second big GBS firm to come to Kigali: CCI joined DSAA to become eligible to receive training funds for Careerbox (CCI's associated training entity), to take the lead in the worker upskilling process. This constitutes the type of trust-based value-chain governance that, according to the literature, can induce a lasting knowledge transfer ([Keijser et al., 2021](#); [Altenburg, 2006](#)).

Whether the knowledge-transfer to Rwandan workers and firms can succeed will in large part depend on the 'embedded autonomy' of these intermediary organisations with the GBS firms (Evans, 1995). In order to understand what is possible, the supporting ecosystem needs to know the GBS sector intimately (embeddedness), yet, in order to judge whether a GBS firm is on track to fulfilling the needed job-creation and knowledge-transfer targets, there also needs to be sufficient detachment by the subsidising entities (autonomy). The two skilling firms elev8 and Careerbox are entirely embedded with the GBS firms Tek Experts and CCI respectively. Harambee Youth Employment Accelerator is a South African not-for-profit social enterprise, whose leadership team holds close personal ties to South Africa's GBS industry. Harambee is therefore a suited partner for the Rwandan GBS sector, not merely for training the right skills, but for understanding good practice examples and facilitating regional value chain linkages with the South African GBS cluster. Holding longstanding ties to the South African GBS industry association, Business Process Enabling South Africa (BPESA), and industry consultancies, such as GBS World & Genesis, Harambee is well suited for understanding the GBS firms' needs in Kigali (embeddedness) and for measuring their success independently (autonomy) (personal communication, November 2021). The GDC has established a connection with CapeBPO, the City of Cape Town's public sector body, whose leadership was instrumentally involved in sparking the Cape Town GBS sector in the late 2000s (personal communication, Gareth Pritchard, September 2021, Gütersloh; David Rumble, August 2021, London). Lastly, DSAA has forged personal ties with the leading GBS facilitators in Egypt's Information Technology Industry Development Agency (ITIDA), the agency that has been pivotal in the growth of Egypt's GBS cluster.

With these intermediaries, Rwandan policy makers can build on the support and advice of successful GBS facilitators like BPESA (via Harambee), CapeBPO (via GDC) or ITIDA (via DSAA). This can help RDB take the decisions necessary to not merely create low-end contact centre jobs in Rwanda, but to nudge firms along the knowledge-transfer pathway from the start.

One practical way to initiate this could be to integrate the training of Rwandan mid-level management. CapeBPO's former CEO has created The Ubuntu Leadership Academy (TULA), specializing in training for midlevel management positions in the South African GBS sector. According to several interviewees, this form of GBS management/supervisor training is important, not merely for building local innovation capabilities (the 'Philippines problem') but also for building local production capabilities to get the industry off the ground (the 'Kenya problem'). A regional manager for a GBS firm with a big presence in North Africa confirmed this. Explaining the challenges involved in expanding to other locations in Sub-Saharan Africa, they noted:

“You can have in some areas the same types of skills when compared to Morocco, but the thing is the scalability can be hampered by the lack of middle management. Because the economic market is quite, let's say, narrow, there are not a lot of international companies, and ... in order to manage business for international companies, you need to have international standards and mindsets, and that you cannot find so easily in these countries. Hence, having a hard time to grow in these countries, even if the labour pool is great, you lack that extra layer” (Interview, January 2021).

In Rwanda, for investing GBS firms, generous work-visa stipulations for the first years (reduced in following years via sunset clauses), can be coupled with such GBS leadership training organisations, who could be approached to supplement the training ecosystem. South Africa's TULA has expressed interest in supporting the Kigali cluster build the local management capacity from the start (personal communication, Gareth Pritchard, September 2021, Gütersloh).

Beyond management capabilities for contact centres, the technological changes currently witnessed around the world have also opened new opportunities for upgrading to higher-complexity IT-outsourcing (ITO) services tasks. For nudging parts of Rwanda's digital services export sector towards the upper rungs of the skills ladder, several organisations have already settled in Kigali. Carnegie Mellon University Africa (CMU-A) and Andela have both chosen Kigali for their Africa training campuses. While CMU-A's courses are more broadly applicable (ICT and tech-related management courses), Andela's training is specifically aimed at the types of high-end software engineering tasks that are in demand in the Global North and that can be conducted remotely from the Global South. This is in line with the GoR's strategy of becoming a regional hub of talent schools, making it easy for African students exceptional in the science, technology, engineering & mathematics (STEM) fields to gain scholarships and visas to Rwanda, thus churning out higher numbers of top-level graduates ([MINICT, 2020](#)).

On the side of IT firms, several DSAA members have set up in Rwanda with the purpose of training and eventually exporting the services of Rwandan software developers. Their numbers of fully employed and actively exporting developers are still small – e.g., Tech Affinity (15), AmaliTech (13), ZaTech (13), Awesomity Lab (8), Code of Africa (6) – as many of them have more trainees than fully working developers (personal communication, June 2022, Berlin). This too, should boost the technical skill-base needed for creating a future-proof digital services export sector in Kigali.

As valuable as these higher-end IT skills and service providers are for the longer-term knowledge transfer, most jobs in the sector will initially come from lower-complexity BPO and ITO work – creating broad-scale production capabilities (i.e., having a sector with many contact centre agents). These jobs are no guarantee for generating innovation spill-overs from GBS firms to the local ecosystem, but the sheer numbers of potential contact centre jobs to be created (see below), have put them at the core of any cluster-building strategy of a new delivery location in a low-income country. The next sections

will thus examine in some detail whether such lower-end contact centres provide decent and future oriented jobs, or if, in the age of the Fourth Industrial Revolution (Schwab, 2016) they look more like exploitative dead-end jobs that should be avoided.

3.2 *Digital Sweatshops or Decent Jobs?*

If the growth of a digital services export sector in Rwanda is to be desired, then, the challenges that workers might face in this sector also needs to be discussed and addressed openly. Globally, India is by far the largest GBS location, with some 4.47 million workers, and critics of India's GBS sector have lamented dull repetition, a waste of human capital, and unsavoury and unfair working conditions in contact centres, sometimes referring to 'digital sweatshops,' in which workers are exposed to long and inflexible working hours, threatened to be fired if they asked for more breaks or emergency leave, and treated unfairly in various other ways ([Ofreneo et al., 2007](#); [Kuruville & Ranganathan, 2010](#); [Thite & Russell, 2010](#)).

Ernesto Noronha & Premilla D'Cruz ([2022](#)), who have long contributed to the critical academic literature on the Indian IT & ITES sector, have recently reviewed this literature's main findings over the past two decades. On the positive side, they note that several studies found the Indian IT & ITES sector to have:

“exceptionally good grievance redressal procedures via open forum meetings, open door policies, town hall meetings, organisational social media, video messages or chats, counselling and suggestion schemes, non-hierarchical structures, informal work culture, merit-based promotions, career growth through tieups with educational institutions and gender equality. Besides this, the explosive growth of the industry gives these professionals the ability to negotiate aggressively and demand high concessions in terms of compensation and career advancement from companies. This has prompted the firms in the IT/ITES sector to explicitly introduce human capital management strategies such as high salaries, opportunities to work abroad, quick promotions, flexitime, parental leave, provide more congenial and satisfying work environments, transport facilities, the option to telecommute from home, stock option plans, cafeterias, sports facilities, destress rooms, onsite childcare and health facilities comparable to those of their strongest competitors in the US and elsewhere. ... Further, most employer organisations mandated by their US clients sought to provide physical work environments of international standards resembling those in the West in the process illustrating how the national labour markets for professional services are increasingly intertwined with the global value chain. ... There was also an effort to create fun in the workplace, particularly in the BPO sector with cultural activities and get-togethers such as organised events for their employees' family members, team outings, team parties and office gatherings organised frequently. ... In fact, some researchers have argued that well-being and job satisfaction form the pivot of HR practices implemented in the Indian IT sector, which are supposed to be highly innovative, professional, formal, structured and world-class. ... [Thus, some] conclude that workers in this sector have moved towards better-paid employment associated with progressive social upgrading—a clear instance of a 'race to the top'” ([Noronha & D'Cruz, 2022](#), p. 181).

While this sounds fantastic, the above merely served as a balanced introduction to the rest of the review article, in which [Noronha & D'Cruz \(2022\)](#) depict in much more detail the troubling findings in the literature on India's IT & ITES sector:

“What remains hidden behind the 'chic and yuppie image' of the industry, however, are the mundane, labour-intensive manufacturing processes ... the tedious, low-end, labour-intensive work, the unrelentingly monotonous and low paying execution tasks. ... In short, the recent focus on ITES as a driver of software exports reinforces the low-wage segment of the value chain. ... [F]rom a GVC perspective, many of the IT jobs in India are routine, monotonous, noninnovative, tedious, uncreative, less skilled and lowend. ... The outsourcing providers in India are under constant pressure by their clients to reduce operating costs and increase service levels, resulting in a 'sacrificial HR strategy' that compromises employees' well-being and job satisfaction in favour of company objectives. In some

cases, this leads to depersonalised bullying. ... Given the nature of their work, employees are considered replaceable, expendable and dispensable commodities on the assembly line rather than knowledge workers. As a result, Indian suppliers do not endow their employees with high-end skills valued by the market, or invest in training and certifications both in terms of time and money. Labour is seen as a cost rather than a potential asset and investing in the quality of the labour force is virtually unheard of” (Noronha & D’Cruz, 2022, p. 182-4).

Yet despite these observed limitations, Noronha & D’Cruz (2022) also find that the workers in the sector have often tended to take more optimistic stances to their plights than did the authors of this academic literature:

“It was difficult to convince IT/ITES employees about the need for a union. ... Believing in the relevance of merit as the means of career progress, employees feared that the presence of unions would reverse these trends by introducing a levelling effect through attempts to protect the less capable. ... In their view, intelligent, qualified, motivated, responsible and upwardly mobile professionals like themselves, whose jobs provided good returns, whose work environments were modern and chic, and whose employers looked after their wellbeing, were not in the same category as factory workers. ... Naturally, the two initiatives of organising ... failed. ... Overall, while capital has well and truly globalised, effective working-class organisation across complex production networks remains the most daunting challenge of all” (Noronha & D’Cruz, 2022, p. 187).

One explanation for this discrepancy – between the academic literature’s calls for stronger worker regulation and the workers’ apparent complacency on this front – could be that subtle pressures are put on workers by the IT & ITES industries behind the scenes. Even without threats from employers, worker collective action can be extremely difficult to organize (Olsen, 1965). Another explanation could be that many academics who choose to investigate labour regulatory issues tend to do so through the lens of critical labour theory. These researchers could thus have come to similarly damning conclusions had they observed the East Asian manufacturing sectors, whose successes Rwanda now seeks to emulate with the ITES industry. Lastly, regardless of the theoretical lens applied, it can be difficult to catch and evaluate all the different facets of an economic transition.

On the other side of the planet, in Silicon Valley, scholars who studied the socio-economic trends among technology entrepreneurs and managers were making different observations. Writing about the occupations of immigrants to the USA, Wadhwa et al. (2007) noted that “Indians have founded more engineering and technology companies in the US in the past decade than immigrants from the U.K., China, Taiwan and Japan combined. Of all immigrant-founded companies, 26% have Indian founders” (p. 4) and that “Indian immigrants outpaced their Chinese counterparts as founders of engineering and technology companies in Silicon Valley” (p. 5). Other scholars have traced the origins of this phenomenon back to India’s IT & ITES sector:

“By 1995, with the continuing growth in demand from U.S.-based firms, about 100,000 programmers were working in India. In other words, a sizable and appropriate labor force already existed in India when the Y2K crisis arose, and it enabled a major shift in labor movement in the industry. AnnaLee Saxenian, who has studied the Indian information technology sector in Silicon Valley and Bangalore, wrote about ‘the post-Y2K recognition in the West that Indian firms offered high-quality services, not just cheap labor’” (Chakravorty et al., 2017, p. 55, citing Saxenian, 2012).⁴²

Some of these larger ripple effects become apparent only years later. While much of the empirical findings reviewed in Noronha & D’Cruz (2022) were made before 2010, such facets of India’s IT&ITES sectors’ knowledge spill-overs have taken

⁴² The Y2K (or ‘millenium bug’) was the fear that algorithms would wreak havoc after 31 Dec 1999, as space-saving 2-digit code labeled the year 2000 as ‘00’, equal to 1900. This gave many Indian developers in the late 1990s the work of reprogramming computers around the world in anticipation of a crisis that never materialized.

shape more recently. In a December 2021 BBC article, entitled: “Why Indian-born CEOs dominate Silicon Valley”, the authors allude to a few statistics:

*“Parag Agrawal, who was appointed this week as Twitter’s CEO, has joined at least a dozen other Indian-born techies in the corner offices of the world’s most influential Silicon Valley companies. Microsoft’s Satya Nadella, Alphabet’s Sundar Pichai, and the top bosses of IBM, Adobe, Palo Alto Networks, VMWare and Vimeo are all of Indian descent. Indian-origin people account for just about 1% of the US population and 6% of Silicon Valley’s workforce - and yet are disproportionately represented in the top brass. Why? “No other nation in the world ‘trains’ so many citizens in such a gladiatorial manner as India does,” says R Gopalakrishnan, former executive director of Tata Sons and co-author of *The Made in India Manager*. ... More than 70% of H-1B visas - work permits for foreigners - issued by the US go to Indian software engineers, and 40% of all foreign-born engineers in cities like Seattle are from India (Inamdar & Alluri, 2021).*

While these developments are discussed in the ‘brain-drain vs. brain-gain’ literature (e.g., [Saxenian, 2005](#)), the figures suggest an unprecedented level of knowledge spill-over and room for upward mobility in the Indian IT & ITES sector.

In the Philippines, the trajectory as observed by Kleibert & Mann (2020) seems to be less conducive to upward mobility. With fewer locally owned firms and with less emphasis on higher-skill IT services and more emphasis on lower-skill BPO services, Kleibert & Mann (2020, p. 1070) worry that the Philippines’ “dependency on a single sector, located at the lower-end of the value chain, is questionable as a sustainable long-term development trajectory, given threats of relocation (to lower-cost countries) or automation”. But the Philippines’ sector started a decade later than India’s. And, in light of all the disconcerting findings in the academic literature on India’s IT & ITES sector (see the review by [Noronha & D’Cruz, 2022](#) above), Kleibert & Mann’s worries about the ‘Philippines problem’ may not be the final verdict on that country’s trajectory.

Based on long-form interviews and a survey of 200 current and former BPO workers in the Philippines, Beerepoot & Hendriks (2013, p 836) found that their

“analysis of knowledge and skills acquisition identifies two distinct employability paths of the surveyed workforce, which can be viewed as broader employability (low- and medium-end segment) versus specialization (high-end segment). Skill and knowledge accumulation in the low- and medium-end segment made the workforce more broadly employable, because they gained capabilities which are transferable from one business context to another. These employees carry with them a toolkit of portable skills, enhancing their flexibility and capability to self-sufficiently move through the labour market. For them, BPO work was a temporary phase in employment and a resource to avail themselves of generic skills deemed mandatory for reaching prospective career goals. High-end BPO workers ... became more specialized as they largely developed occupation-specific skills. ... BPO work spurs generic skills acquisition and is part of a strategic career approach. This contradicts arguments that BPO work does not provide any scope for personal skill upgrading and is a waste of youngsters’ formative years.”

As various angles of an ongoing economic transformation cannot be easily measured, Beerepoot & Hendriks’s (2013) method of asking current and former workers about their own views on the sector’s potential can provide distinct insights. Applying this method runs the risk that results are skewed by respondents’ cognitive biases, if people tend to attribute comparatively more meaning to their own past efforts (effort justification), and comparatively more value to their own capacities (false-uniqueness effects). But taking workers at their word has a few distinct advantages. Workers can be assumed to know best what their personal opportunity costs are when working. They are thus aware of how close they are, at any given time, to their reservation wages (i.e., how close they feel they are to quitting the job). With regard to cognitive biases, applying this method runs lower risks that results are skewed by researchers confusing their own opportunity costs, reservation wages, and job expectations with those of their subjects (availability heuristic & consensus bias), and it has the

advantage of dampening the researcher's urge to confirm preconceived expectations in their findings (experimenter's bias) (Kahneman, 2011).

Hence, for the Rwandan context, this study applies Beerepoot & Henrik's (2013) method of asking current and former workers of the Rwandan contact centre sector about the benefits and downsides of their work.

3.3 Case Study – eMYN BPO in Kigali

Rwanda's domestic contact centre industry has long consisted of one large firm, eMYN BPO with around 500 agents, and several much smaller and mostly captive (i.e., non-outsourced) contact centres at telecommunication and banking/finance institutions.⁴³ Our respondents have estimated that overall, the local contact centre market hosts around 2000-3000 workers in Kigali.⁴⁴ For the current study, three focus group discussions (FGDs) were conducted – one with currently active eMYN workers (four female and male), a second with active contact centre managers and supervisors at eMYN or elsewhere (two female, three male), and a third with former eMYN workers (three female and male).

Sampling: no eMYN or other contact centre employers were contacted for any of these FGDs. The active workers were all drawn from eMYN via snowball method (through a personal contact to one employee, who then provided the other contacts). The participants for the other two focus groups were exclusively reached via LinkedIn profile searches.⁴⁵ This method was specifically deployed to reach former eMYN workers (people who no longer worked for this particular company, but whose LinkedIn profiles revealed that they had done so in the past). This resulted in reaching three types of respondents via LinkedIn: (i) those who no longer worked in the contact centre industry; (ii) those who still worked in the Rwandan contact centre industry in some capacity but no longer at eMYN; (iii) those who still worked at eMYN in a managerial capacity. All focus group participants were guaranteed complete anonymity. The group of *former* workers who no longer worked in the contact centre industry seemed particularly important, as their responses would be less conditioned by concerns of jeopardising their current employment situations.⁴⁶ We thus made sure to group all former contact centre workers into one focus group, to allow them the greatest freedom to speak openly and critical about the industry in general and about eMYN BPO in particular.

The participants for the third focus group were also reached via this method (LinkedIn profile searchers) and included mid-level managers of varying degrees of seniority. One actively managed a shift at eMYN BPO, all others now had leading roles in other contact centres, two captives for large telco providers, and one for a new GBS firm that set up offshoring services from Rwanda.

3.3.1 Findings

Kigali's eMYN BPO is part of an Indian-origin multinational that specializes on mainly serving African telco companies domestically. eMYN BPO's core business model is to provide domestic call centre services from within more than a dozen African countries. Employees have formal employment contracts, including stipulated benefits, such as regular health insurance (90% coverage). Most agents are high school graduates, and monthly gross salaries start at RwF 100,000 to 120,000 (USD 100-120), which amounts to net monthly payments of between RwF 70,000 and RwF 90,000 (USD 70-90). More senior

⁴³ While firm names throughout the study were left unchanged, we altered the name in this case, because all FGD participants hailed from this one firm and thus all statements could be traced back to it.

⁴⁴ One upper-bound estimate, however, sees the total number of contact centre agents at 6,980 in Rwanda (GBS World & Genesis, 2022).

⁴⁵ Via a LinkedIn Premium account, we conducted profile key-word searches for 'iSON Kigali' and thus contacted and conducted pilot interviews with the FGD participants.

⁴⁶ A drawback of this method could be that searching only among LinkedIn profiles skews selection towards the more successful former eTO workers who have such profiles.

agents can earn up to RwF 150,000 (USD 150).⁴⁷ Onboarding consists of one paid month of fulltime training, where the first two weeks are theoretical, e.g., on ethics, and the latter weeks beginning with practice calls. After this, some workers start out part-time, on four-hour shifts (five hours, including one hour break time). The regular, fulltime working days then consist of eight-hour shifts (nine hours including one flexible break hour). Work is clocked and the break hour is split into several smaller or longer breaks independently. Timely arrival is expected, and minutes missed due to late starts or extended breaks are added to the end of shifts. The fulltime shifts are from 6 am to 3 pm, 1 pm to 10 pm, 3 pm to 12 am, and 10 pm to 6 am, and workers tend to receive their preferred shifts (this flexibility was welcome by the discussants). No food is allowed to be brought in from home, but water, coffee, and tea are available for free, and in an on-site canteen, meals and snacks can be bought (full meals cost RwF 1,000-1,500 (USD 1.00-1.50).

“A shift doesn’t last for long, it’s not like you are going to be there the whole day. You eat lunch at home. ... And we only had one hour. So you take 5 minutes for breaks, 20 minutes for coffees and find out you remain with no time. Those short breaks are reduced from the one hour. When you go for a break, the system records the minutes you are taking and therefore the remaining time. ... we couldn’t take a full one-hour break. Except for the short breaks, the team leader decides when you take the break. When you exceed the one hour, you add it on your shift time. Like if you were to stop at 9 and exceeded 10 more minutes, then you have to work until 9 pm and 10 minutes” (FGD6R1, translated from Kinyarwanda).

For transport, the firm has contracted a bussing company, and workers are offered one free trip per shift. This ferries workers either to or from work during hours when public transportation is difficult (i.e., before 6 am or after midnight). The minibuses carry around 15 workers per trip, most trips are under 30 minutes, but some can take up to an hour. The other (daytime) fare needs to be arranged privately and paid for by the workers themselves. But discussants did not see this as a problem.

One somewhat contentious issue was public holidays. Even though pay is doubled and staff numbers are reduced, our respondents had different views on the call centre being open on all public holidays besides 7 April (the first day of Genocide Memorial Week).

“Most public holidays are not respected there. Like these Independence Day, Liberation Day are holiday to others but were a must to us” (FGD6R1, translated from Kinyarwanda).

“They gave us bonuses for sure, but we didn’t have a choice. The rules and the regulation say you do but internally they all know you don’t” (FGD6R3, translated from Kinyarwanda).

“It’s a must because the call center works 24/7 and cannot close ... but on big holidays like Christmas or New Year’s Day, only a few people work. And there are volunteers to work since they provide them with food and transport” (FGD6R1, translated from Kinyarwanda).

Worker benefits include RwF 10,000 per month of free airtime for private use, a dedicated software for colleagues to call each other for free, and options for partially financed annual outings. Workers are entitled to 1.5 days per month paid leave, and applying and receiving emergency leave short notice is possible, e.g., in case of a death in the family

“You have to apply for a leave. They have leaves for that matter. ... Yes [it is paid leave]. They also get engaged in your situation. They send a team to participate in the funeral” (FGD6R2, translated from

⁴⁷ While eMYN workers consider their wages to be low, by comparison, stable wage earners who take home RwF 150,000 (USD 150) per month are among the highest 20% of income earners in Kigali, among the top 5% of Rwanda’s 4.2 million labour force, and among the top 2.5% of the 7 million working-age population. The large difference between ‘labour force’ and ‘working-age population’ is mainly due to the 45% of Rwanda’s working-age population who are engaged in subsistence farming, which is statistically not counted in the labour force.

Kinyarwanda). Another participant added: *“For social they are good. They also pay for sick leaves, maternity leave”* (FGD6R1, translated from Kinyarwanda).

Most eMYN BPO worker discussants agreed that they did not face harsh working conditions and ascribed infrequent negative experiences to individual encounters, e.g., with specific supervisors:

“Some managers are better than others. You can fall sick at work and your team leader asks you to sit down and wait for your shift to end and another allows you to leave immediately. [...] Some people have good leadership skills, others don't. Some get promoted to be team leaders but lack skills” (FGD8R4, translated from Kinyarwanda).

When asked for irritations or frustrating circumstances, the discussants mentioned early hours.

“The challenge we meet is about those who do a morning shift. We have to be at work before 6 in the morning. There is a car that picks us up, but it picks many people from different stations. Those who are picked first have to wake up very early at 4 a.m. for a job that starts at 6. We said our job is easy, but no job can be easy. It is even more difficult when you have to wake up at 4 every day” (FGD8R5, translated from Kinyarwanda).

Other than this, no significant downsides of the contact centre industry in general or of eMYN BPO as a company could be detected from the discussants' remarks. This finding was consistent through the FGDs with current eMYN BPO workers, current contact centre managers (at eMYN and elsewhere), and former eMYN BPO workers. Most discussants explicitly cherished their working conditions.

“There is also the teamwork. This job requires to work together. Like for example, if a car leaves you behind, you talk to your workmates and say maybe you will reach late and ask others to reserve your place. We have unity at work and out of work” (FGD8R8, translated from Kinyarwanda).

“Our workmates were of the same age and shared the fun. We would organize trips. ... To any place we want in Rwanda ... The team leader has his or her own team so they organize ... The company pays for the transport and workers contribute the rest” (FGD6R1, translated from Kinyarwanda). Another participant added: *“Actually the company gives some money, they call it transport, and you have to arrange whatever you want starting from that money”* (FGD6R1, translated from Kinyarwanda).

In terms of personal fulfilment, respondents did mention the monotonous nature of their work:

“The challenge is being bored by doing the same things over and over without any changes, so it would be better if there were some changes” (FGD8R5, translated from Kinyarwanda).

But in all FGDs, the respondents also commented on their skills development and increases in future employability:

“I kept learning on the job with time. ... you have to know how to deal with harsh and strict customers regardless of who is wrong and who is right. So, that is the first thing that I learnt from the call centre department. Then after knowing how to use the system, I got promoted to the call centre supervisor position. It is a good sector that makes people grow in customer service because normally the way you deal with a customer is a sign of how you behave in society. So, the call centre position job is a good position to help you grow both in customer service and in social life” (FGDMR3).

Particularly female respondents noted that working at eMYN BPO had equipped them with communication skills essential for their later careers:

“My responsibility was ... I was in inbound, talking to clients, receiving calls, to hear some complaints and then to escalate them. I can say that my job there was too good. I came there with no experience

about customer care, but now I am good at talking to people, to clients. What I learned there was how to interact with clients and then how to handle any complaints about customers who get a little bit too angry and those who talk too nice” (FGD6R1, translated from Kinyarwanda).

Most current and former eMYN BPO workers were also explicitly grateful for the learning effects entailed in their jobs:

“Most of us had little knowledge about a computer. We knew how to play movies only on a computer, but we learned to use technology. Some of us didn’t know how to start a computer. We would ask how to restart and help each other, but now everyone handles it themselves. That is a skill we acquired. Another thing I learned is time management. I am normally not good at respecting time, but I have never been late, and I work every day. And I learned about communication, if I am sick, I don’t just stay at home but rather communicate or if I have a problem at work. I have to report it to my team leader” (FGD8R8, translated from Kinyarwanda).

“The first thing we learn is to respect the time. It was my first time to see like 50 persons respecting the time. [...] I also learned to be calm in any situation. Sometimes a person can say something that hurts my feelings, I just think if I reply, it can cause me trouble, then find the more peaceful way to answer” (FGD8R9, translated from Kinyarwanda).

“Here we learn different things like working with others in a society. Even when working, we talk to customers who have different ways of speaking and we find it amazing. We also receive clients who speak different languages, so we learn to improve on that even if we are not at school. When you can speak languages spoken by many in the country, the job becomes easier” (FGD8R6, translated from Kinyarwanda).

And former eMYN workers noted the opportunities they had to move up in the sector:

“...our company helps us get promotions to get hired in the company you are working for and leave eMYN BPO when the company wants to hire you in service centre or any other company may come to recruit some workers here” (FGD8R2, translated from Kinyarwanda).

The one significant downside flagged across all three focus group discussions was the low levels of remuneration for agents:

“They respect the contract. If they say they will pay you the 25th then they pay you on the 25th“ (FGD6R3, translated from Kinyarwanda).

“At work, we consume a lot of energy, but the salary we are paid doesn’t match the work we do” (FGD8R1, translated from Kinyarwanda).

“We do our job and that of others and we are not satisfied with our salary [...] I don’t mean the salary itself is a problem, but some are paid less than others while the performances are the same and the salaries change every time you may get like 70,000 RwF [USD 70 monthly] and your mate gets 120,000 RwF [USD 120 monthly] and we do a lot of work” (FGD8R3, translated from Kinyarwanda).

When asked by the moderator what a fair net wage for a regular contact centre agent would be, all respondents answered with figures ranging between RwF 150,000 (USD 150) and RwF 250,000 (USD 250) per month.

For GBS firms, Harambee and RDB have conducted a bench-marking study with South African entry level wages. To initiate the GBS firms’ involvement in local skills development, the goal is to achieve entry-level agent net monthly wages of between USD 150 and USD 320. This is within the salary spectrum, depending on the complexity of the task, that has been agreed between the GoR and the first newly arriving GBS firms. If these or similar wage levels can be achieved, it can be expected that an expansion of the sector in Rwanda would lead to some of the highest paying and most sought-after

jobs in the Rwandan formal economy. The differences in incomes between entry-level contact centre agents who currently serve the domestic market at eMYN BPO versus entry-level contact centre agents who will serve overseas' markets could then be as much as threefold.⁴⁸

To put these figures into perspective for the wider population: Out of a working-age population of around 7 million, only some 4% earn USD 300 or more per month, and a large proportion of these high-earners work for the state (own calculations based on official NISR statistics).

Apart from higher remuneration, the working environment and worker benefits also seem to be better in the GBS sector than in the domestic contact centre sector of a low-income country (anecdotal evidence from visits to Kigali's new GBS firm's office; see also [Noronha & D'Cruz, 2022](#) for the Indian context).

Some newly emerging tasks in the GBS sector can, however, have particularly negative side effects. Social media content moderation, for example, where workers need to examine and delete scores of unsavoury media is a task that has of recent grown rapidly. While much of this work is deemed comparatively harmless (Roberts, 2019), in the worst cases this can range from gruesome execution and torture videos to explicit child pornography. The conditions under which such work would be brought into Rwanda would need to be scrutinized. This work should be conducted in combination with dedicated psychological support structures and state-of-the art technological equipment (much of the most gruesome content need not be consumed in full but can be prefiltered and deleted based on thumbnails and still images). The levels of support granted to Rwandan social media content moderators should not be below those granted to Silicon-Valley-based social media content moderators (see Roberts, 2019).

Such precautions should be viable if they are also in the interest of investing firms. Overall, the research for this study shows that the trend in the GBS industry seems to have shifted with the times. Several respondents in the GBS sector noted that many firms' objectives for offshoring have changed over the years, from a purely profit maximising perspective, to a perspective more invested in brand image development and impact sourcing. Hence, if bringing decent jobs to a low-income country allows a GBS firm to play a part in poverty reduction and other social objectives, then this is an aspect that firms could be willing to invest in (various interviews, 2020-2022). In the area of gender equity, for example, many of the GBS sector firms employ more than 50% women, and some, such as CCI, employ 66% women (personal communication, industry consultant, May 2022, social media). This all suggests that a GBS sector in Kigali could well lead to significant skills development, operate under decent working conditions, pay well, and strengthen women economic participation, thus be a main driver of gender equality. But all this is based on the premise that human workers will remain an integral part of the GBS sector. Investing in global business services as a driver for job creation only makes sense if automation does not drastically reduce the number of human workers needed to perform this type of work.

3.4 *Fodder for Job Automation or Future-Proof Career Trajectories?*

Throughout the 2010s, the GBS sector invested heavily in a technological transition, applying the use of robotic process automation to take on the most mundane tasks of contact centre work, such as taking down a caller's basic information and routing the call to the right place, either to another automated response or a human agent. These investments were widely accompanied by predictions in the literature that, much like in many other sectors, this trend would soon lead to drastic downsizing of human workers (e.g., Brynjolfsson & McAfee, 2014, Ch. 2; Ford, 2015, Ch. 4; Reese, 2018, Ch. 9; West, 2019, Ch. 4; Wadhwa & Salkever, 2017, pp. 40-44, 160-64). A contrarian narrative in the literature held that such warnings

⁴⁸ All figures cited by FGD discussants and interviewees tended to refer to net earnings. Gross earnings are some 20% higher, depending on the incentive deal arranged between the GBS firm and GoR.

of technological unemployment had long existed, at least since the beginning of the first industrial revolution, and that, since no net loss in jobs could thus far be detected, new technology would most likely not replace workers but aid them in finding new and better ways to become more productive (Bessen, 2015, Ch 7; [Autor, 2015](#); Friedman, 2016; [Williams, 2021](#); Diamandis & Kotler, 2020 Ch. 13-14; [World Bank, 2019](#)). This optimistic narrative was rebutted by others who objected on two fronts: (i) that upon closer inspection, past waves of technological progress *did* lead to significant technological unemployment⁴⁹ and suffering for many workers, before the technology created new forms of work much later, often decades later; and (ii) the current wave of technological progress seems to be so significant that the new jobs created may either be only for a select few, or might also be automatable ([Brynjolfsson & McAfee, 2015](#); Frey, 2019; Susskind, 2020; Harari, 2018 Ch. 2). Lastly, back in the optimistic camp, much has been written about how, once automation sets in, human workers can and will grow ‘with the machine’ into new forms of work (Agrawal et al., 2018; Frank et al., 2018; O’Reilly, 2018, Ch. 14-16).

As these debates in the literature continue to bring good arguments for and against the threat of technological unemployment, initial empirical findings within the GBS sector are promising for human workers. After the wave of investments in robotic process automation in the GBS industry, a broad consensus among industry observers has emerged that the technology will not replace humans. Regardless of how much the technology advances (short of human-level AI, which seems at best several decades away), robotic process automation can be used to make the human agent-customer experience more enjoyable, more efficient, and faster, but not to take over the role of humans (personal communication Ralf Plattfaut March 2022, telephone; Stephan Fricke, June 2022, Berlin). Observing current trends in the South African GBS sector, the former CEO of CapeBPO notes:

“I’m confident that despite automation, or with automation, there seem to be more jobs available, and, AND, not only more jobs but more interesting jobs in the industry than there were ten years ago”
(personal correspondence, September 2021, telephone).

Global demand seems to be growing particularly fast for data labelling (interviews M.S., 2020; J.B., 2021; L.M., 2019) and for other non-voice tasks, such as social media content moderation (Roberts, 2019), and various higher complexity IT services such as software development ([Stephany et al., 2021](#); [Baldwin et al., 2021](#)). But this growth for non-voice services still comes from a comparatively low base. Globally and across Northern and South Africa, voice-based services still make up around 70% of all digitally traded services (interviews A.B., 2020; M.M., 2021; D.R., 2021; G.P., 2021), and voice services, too, are growing fast ([Rajagopaul et al., 2020](#)).

When comparing the trajectories of different tasks in the GBS sector, globally, there has been relative growth, throughout the 2010s of non-voice back-office work, particularly of data labelling and social media content moderation. The pandemic then brought about an unprecedented need for digital communications infrastructure, which induced a sudden increase in demand for higher-end IT services (e.g., [Stephany et al., 2020](#); [Baldwin et al., 2021](#)). But since these non-voice sectors started from a comparatively low base, front-office contact centre services (mainly customer relations management, and still to a large extent performed via voice services) remain the dominant task, which is also growing steadily.

An executive of one of the largest GBS firms (Teleperformance, with some 370,000 employees) commented on the developments in the sector in late 2021:

“we’ve seen real acceleration growth of several markets ... obviously opportunities for more revenue generation ... with the explosion of data, ... a huge business opportunity... this generated significant

⁴⁹ Technological unemployment refers to the phenomenon of losing one’s job because it can be performed better and/or cheaper by a machine. Common examples are photo developers who were replaced by digital cameras, video store clerks who were replaced by on-demand streaming services, travel agents who were replaced by online booking platforms.

short-term opportunities ... but also we see the generation of real long-term opportunities for the industry” [but he noted that this came with significant] “labour challenges, ... I don’t think any of us predicted in our industry that there would be so much growth. You know, our EMEA [Europe, Middle East & Africa] region grew 40%, 2021 on 2020, I think that we’ve seen by any measure of survey that the customer touch points has drastically increased, yet the customer satisfaction has gone down. And I think one of the issues as we wrestle with this new world order is to find a way to reassemble the business by listening to customers and actually giving them what they need instead of throwing technology to try to solve the problem. So, we do have a lot more technology, we have less answers, we have poorer customer satisfaction. ... it’s incumbent on us to try to combine the people-process-technology to deliver [but] we feel pretty much everything can be outsourced ... So, I do see exciting times ahead” (Niederer et al., 2021).

Similarly, the CEO of the South African GBS industry association, BPESA, commented on this labour supply problem in the Global North, with a solution from the Global South:

“One of the less expected outcomes of the COVID pandemic is that major GBS source markets, such as the UK (4.3% unemployment) and USA (4.6% unemployment), find themselves unable to fill very large numbers of CXM [Customer Experience Management] and other job opportunities ... So, while demand for CXM services across major industry verticals such as retail, eCommerce, Financial Services, Telco, ICT, Travel, and utilities grows, the supply of skills shrinks in those geographies. ... at the same time, top global delivery destinations such as Egypt (7.5% unemployment) and South Africa (34,9%) have surplus capacity ... Some [GBS firms] have already discovered this, which is why South Africa’s GBS sector has enjoyed an average compounded growth rate greater than 29% for the past 3,5 years!” (Searle, 2021)

This entailed that many GBS firms have been spreading out in search of new delivery locations across the Global South.

4 Scenarios for Global Business Services in Rwanda

After the above sections highlighted the opportunities that exist for establishing well-paying and future-oriented jobs in the GBS sector, we next examine how realistic the chances are for a city like Kigali to become a sizable GBS cluster. This analysis is divided into two parts: (i) the potential global demand for digital services exports from Rwanda (i.e., how much appetite exists in the world for a new GBS cluster), and (ii) the potential local capabilities in Rwanda for supplying such services to the world.

4.1 Projected Numbers of Jobs in a Rwandan GBS Cluster?

When compared to manufacturing, very few jobs exist in global business services exports from the Global South to the Global North, and the GBS sector would need to grow significantly to have an impact on labour markets across the Global South (Baldwin & Dingel, 2022). But for particular agglomerations, one way to estimate the possible scenarios for GBS workers in a new cluster like Rwanda would be to look back in time to see what happened in the sector in other clusters. Since 2010, the sector has more than doubled to 74,000 employees in Morocco, and grown to 240,000 employees in Egypt, to between 260,000-270,000 employees in South Africa (GBS World & Genesis, 2022; Rajagopaul et al., 2020). Similarly, in Poland, the sector has grown by 12% annually between 2016-2020 to 338,000 workers (ABSL, 2021; Czarnecka, 2021). And in India, the GBS sector has grown from around 3.86 million employees in 2016, to around 4.47 million in 2021 (MEITY, 2021). Looking forward, the pandemic-induced work-from-home measures made 2020 a difficult year for the GBS sector,

but analysts agree that this global shift into the digital realm has opened vast new opportunities and new markets for the GBS sector. Analysts at McKinsey & Co, in a 2020 report about South Africa, note that:

“The BPO sector currently employs over 270,000 people in six cities, 65,000 of whom serve international clients. This total staff base could grow to over 775,000 jobs by 2030, with up to two-thirds of these in the service of overseas markets. That trend is already underway: Amazon announced in June that it would be hiring 3,000 people in South Africa this year to support customers in North America and Europe” (Rajagopaul et al., 2020, p. 2).

To estimate the potential size of the GBS sector in Rwanda, we conducted individual interviews with one executive of a GBS company (active in over thirty countries including several African countries); a leading GBS sector analyst and advisor on frontier market investments in new geographies; and two GBS facilitators whose organisations play roles in South Africa’s GBS industry development and who have knowledge of the broader Sub-Saharan African context. We asked for these experts’ best, medium, and worst-case outlooks on an 8-year (2030) vision.

All confirmed that, unlike many less developed cities across Africa, Kigali was one of the contenders for becoming a new cluster (competing with cities like Nairobi, Accra, or Dakar). For the positive scenario, their 8-year projections for how many new GBS jobs could be expected ranged between 50,000 and 100,000 jobs by 2030 (the four individual estimates were: 50,000; 65,000; 70,000; and 100,000 jobs). Averaging around 71,000 GBS jobs, this is over a third (34%) of the number of Rwandan wage earners who currently earn at or above the GBS entry-level salary of USD 150 monthly.⁵⁰ These were the best-case estimates, made by analysts who are more familiar with the GBS sector demand for labour, worldwide, than with the Rwandan capabilities of delivering such services.⁵¹ These estimates merely indicate that global demand exists for a Kigali-based GBS cluster. The bottleneck will emerge on the supply side of skilled labour. As Baldwin & Dingel (2022, p. 175) note:

“many jobs that can be performed remotely require soft skills that make domestic and foreign workers imperfect substitutes. The equilibrium number of telemigrants, therefore, depends on the number of potential foreign suppliers of these tasks and the bilateral frictions that impede trade in these services.”

Hence, this best-case is juxtaposed with the worst-case in which no GBS sector would emerge and grow in Rwanda. For developing negative, positive, and mediocre scenarios, we can thus begin to distinguish between a failed take-off, a full take-off, and a partial take off of Rwanda’s GBS sector.

A *failed take-off* is the scenario in which the two existing GBS firms – Tek Experts and CCI – would fail to find sufficient talent in Rwanda to scale their operations, or would face other obstacles, and withdraw from Kigali. The publicly subsidized high-tech endeavours, such as Andela or AmaliTech, would fail to become profitable exporters and would remain small tech educational facilities, dependent on philanthropic funding. Taking note of these developments in Rwanda, other GBS firms would refrain from investing in the country.

A *full take-off*, by contrast, is the scenario in which a large and high-value GBS sector emerges. If Tek Experts and CCI can scale up their workforces quickly (as CCI and Majorel have recently done in Kenya), this would bring new contracts to Rwanda, thus enriching the number of case studies that would entice other GBS firms to locate in Rwanda. If the ecosystem can deliver the necessary talent, tens of thousands of well-paying services export jobs could be created within a decade. This alone would have many desirable effects on the Rwandan labour market, as GBS sector jobs are formal jobs and thus automatically come with all the health care, social security, and worker protection benefits (GoR, 2018) that only accrue to

⁵⁰ Around 5% of Rwanda’s 4.2 million labour force earns at or above USD 150 per month. In absolute terms, these are some 210,000 workers (in all wage-earning sectors combined). 71,000 GBS workers would increase this number by 34%.

⁵¹ Some of these analysts might also have been interested in advertising the GBS sector’s potential. Thus, such figures should be absorbed with caution.

the 10% of Rwandan workers who are formally employed. Furthermore, the GBS sector employs a greater proportion of women than most other sectors (above 50% in most firms and as much as 66% in some firms), which is in line with Vision 2050's goal of bringing more women into the workforce. This would drive the production capabilities of Rwandan-based GBS firms and make Rwandan firms and workers competitive with the more established GBS clusters in the world. From this starting point, a full take-off would entail that a pathway beyond mere production capabilities is created towards innovation capabilities ([Altenburg, 2006](#); [Keijser et al., 2020](#)). Rwanda's ecosystem would be successful in tying the GBS firms into a joint vision beyond the initial impact on poverty reduction and job creation, towards making Rwanda a hub for high-tech services exports. Here, the successes of institutions of higher learning, such as CMU-A and high-tech engineering firms such as AmaliTech would merge with the success of Rwanda's GBS sector of moving up the task complexity ladder.

A *partial take-off* would be a scenario in which the GBS sector either does not take off in size, remaining with only a few thousand workers, or where the GBS sector does become large, employing tens of thousands, but remains a low-value sector, restricted to production capabilities only. In light of the numerous positive effects – worker benefits, gender equity, foreign exchange generation via exports – such a partial take-off of a GBS cluster in Rwanda, one that were to generate some 5,000-10,000 jobs, would already be a desirable outcome.

4.2 What are Rwanda's Chances of Building a GBS Cluster?

The effects of the COVID-19 Pandemic spurred GBS companies to diversify and look for new locations, including in Africa ([Knowledge Executive, 2020a](#)).

Choosing new contact centre locations in emerging markets has seen a significant increase in 2020-21. One key determinant for this diversification has been that the agglomeration in a few cities in South and South-East Asia has caused many GBS companies difficulties during the worst phases of pandemic lockdowns ([Berryman & Lytle, 2020](#)). This, and the sector's overall growth, have led most GBS firms to embrace multi-sourcing from various locations (Newman, 2020), and several of them are actively looking for new destinations across Africa ([Knowledge Executive, 2020b](#), 2022; interviews with various GBS consultants 2021-2022).

The GBS sector has been cited by the Government of Rwanda as a priority sector for over a decade (e.g., MINECOFIN, [2007](#), [2013](#), [2017](#)).⁵² Yet, besides South Africa, Egypt, Morocco, and Tunisia, no African country, including Rwanda, had been able to develop a sizable GBS industry.⁵³ But this has changed recently: small GBS clusters have emerged in Nairobi (Kenya), Dakar (Senegal), and Accra (Ghana), and first international outsourcing companies have set up in Rwanda. The first was Tek Experts, a tech support company with ambitions to establish a 1,000-seat service centre for global blue-chip companies. Other companies in several fields, including image annotation, software development, and classic call centres, are in the process of setting up (e.g., CCI) or in discussion to do so in 2022-2023. This change is also mirrored in recent global rankings, where Rwanda is now highlighted as an “up-&-coming BPO location” ([Knowledge Executive, 2020b](#)).

⁵² In older documents, global business services (GBS) were still referred to as business process outsourcing (BPO).

⁵³ Throughout the 2000s, many Sub-Saharan African governments attempted to emulate the India and Philippine model of exporting digital services to the world. The Financial Crisis of 2008 then slowed the expansion of the GBS to new locations. In Africa, mainly Egypt, South Africa, and to a lesser extent Morocco and Tunisia managed to build GBS sector clusters. Kenya and Ghana made significant efforts but initially failed to gain traction in global markets. The shock of the Financial Crisis was compounded with local deficiencies in the various African countries, such as a lack of reliable infrastructure, lack of suitable real estate with global standards, lack of a pool of workers with sufficient language capabilities, lack of security and stable governance, unreliable currencies, or unconducive regulatory and tax regimes (e.g., on repatriation of corporate profits).

These GBS companies are attracted by several advantages that Rwanda exhibits, such as: stable economic governance;⁵⁴ high ease of doing business scores;⁵⁵ low crime rates;⁵⁶ strong governance scores;⁵⁷ low corruption;⁵⁸ strong public health and Covid-19 response measures;⁵⁹ strong technical tertiary education facilities;⁶⁰ a young, price competitive, and flexible workforce;⁶¹ secure & reliable electricity and internet connectivity;⁶² strong data protection;⁶³ modern office space;⁶⁴ easy international access;⁶⁵ easy and safe commutes for workers;⁶⁶ and a stable currency.⁶⁷

4.2.1 The Skills Gap

With these positive attributes, the biggest concern for a GBS sector in Rwanda is arguably the skills gap. Having few other potential employers can be attractive to incoming GBS firms (as there is less competition for the existing talent), but current competency levels could raise doubts over whether the talent pipeline would be sufficient to sustain a thriving GBS sector.

The most crucial skills relate to language capabilities (mainly English). No comprehensive data exist on Rwandan language fluency, but data from job seekers with Harambee (2020) provides an indication: of nearly 7,000 young applicants, the spoken English capabilities were such that only 10% were fluent enough (B2) to be considered for a contact centre job. Another 15% came close (B1/B2), and most, 75%, were at insufficient levels (B1 or below). These findings are not necessarily representative of the wider youth population, since the sample for this study was ‘jobs seekers,’ i.e., youths who had experienced some difficulties in finding suitable employment.

As the Harambee (2020) study’s authors are familiar with the skill requirements in of the South African GBS industry, they note that the contact centre language requirements tend to be less the *overall* language capacities, and more the *spoken* English capabilities. It is noteworthy that in the Rwandan sample, comprehension appears to be significantly stronger than spoken English. The GBS-required English levels of B2 or above were achieved by nearly half the applicants, with 23% at B2 and another 23% in the C-range (see Figure 2 below). This indicates the need for upskilling spoken English, but it also

⁵⁴ Rwanda’s sovereign credit rating is deemed ‘B+’ by both Fitch (2020) and Balasubramanya (2020) and ‘B2’ by Moody’s (2020).

⁵⁵ Rwanda ranked 2nd in Africa (behind Mauritius, whose average incomes are ten times Rwanda’s); and 38th globally (ahead of the Netherlands and Belgium). particularly interesting for foreign investors is that Rwanda has no limitations on 100% foreign ownership, no capital controls, and no limits on repatriating profits.

⁵⁶ Rwanda is consistently ranked the safest country in Africa, and among the 5-10 safest countries in the world for travellers.

⁵⁷ In the World Bank Governance Indicators, Rwanda’s Regulatory Quality is ranked 4th in Africa (behind Mauritius, Botswana, South Africa); and Rwanda’s Government Effectiveness ranked 3rd in Africa (behind Mauritius and Seychelles) (The Global Economy, [n.d. a](#); [n.d. b](#)).

⁵⁸ In Transparency International’s Corruption Perception Index: Rwanda ranks 2nd place in Africa (behind Botswana, whose average incomes are 9x higher than Rwanda’s); and 54th globally (ahead of Italy and Greece).

⁵⁹ Global praise by the World Health Organisation ([Mitchell, 2021](#); [Beaubien, 2020](#)), and in academic comparisons of public health sector responses ([Cahan, 2020](#); [Hale et al., 2021](#); [Musnabaganwa et al., 2021](#)). EU Safe Country: Rwanda has been the only African country consistently on the small list of countries deemed safe for travel throughout the pandemic ([SchengenVisaInfo n.d.](#)). By late December 2021, this list consisted of 19 countries, including Namibia and Rwanda from Africa ([SchengenVisaInfo n.d.](#)). Rwanda’s outstanding public health sector achievements during the pandemic are in line with the country’s wider accomplishments: On UNDP’s Human Development Index (measuring income poverty, education, and health) Rwanda improved most in the world between 1990 and 2015 (despite Rwanda’s drastic negative scores during the war and Genocide period from October 1990 to July 1994) ([The Economist, 2017](#)).

⁶⁰ Kigali hosts the Africa campuses of Carnegie Mellon University, the International Center for Theoretical Physics, the African Institute for Mathematical Science, and the African Leadership University, among others.

⁶¹ The Rwandan average age is 20, and the average annual income is USD 800. Incomes are steadily rising but will remain below those of regional competitors. Rwanda’s 2018 Labour Law ([GoR, 2018](#), p. 18ff) is conducive for investors (stipulating 45h-work weeks; 21 days annual leave; no night or holiday work restrictions; 15-30-day notice periods for contract termination).

⁶² Rwanda’s electricity outages amount to 29h per year, which is a small fraction of regional averages (see World Bank, 2020b). Rwanda’s 4G/LTE mobile coverage is close to 100% throughout the country, far above the regional average and better than Ghana’s, Kenya’s, or South Africa’s ([GSMA, n.d. a](#)). The internet is connected to Seacom submarine cables via three separate fibre optic broadband cables, two underground cables on separate routes through Uganda to Kenya (Mombasa), and one through Tanzania (Dar es Salaam). This provides risk diversification.

⁶³ On the Cybersecurity Index, Rwanda regularly towers over the regional average and also outscores direct competitors like South Africa and Morocco ([GSMA, n.d. b](#)).

⁶⁴ Due to recent building sprees, Kigali has centrally located modern office space available at between USD 15-22 per square meter. For example, in early 2022, in Kigali’s City Centre: the M Peace Plaza had 8000m² available for USD 18/m²; the I&M Building had 3800m² for USD 20/m²; and the Soras Towers had 2000m² for USD 20/m². Near Kigali Convention Centre: the Kigali Business Centre had 4300m² for USD 20/m²; Kigali Heights had 4250m² for USD 20/m²; and the Career Centre had 850m² for USD 18/m².

⁶⁵ Kigali is accessible via direct flights from Amsterdam, Brussels, Cape Town, Dubai, Doha, Istanbul, Johannesburg, London, Mumbai, and 13 additional African cities (direct flights from New York and Peking are planned). The national carrier, RwandAir, is fast growing and now 49% owned by Qatar Airways. The new airport (60% completed) and is planned to boost Kigali as a regional hub. The city of Kigali is home to over 20 high-quality hotels (five 5-star and more than fifteen 4-star hotels), and has minimal traffic congestion (all city commutes, including to the airport, in under 30 minutes)

⁶⁶ Most transportation costs are far below USD 1 per ride, and, due to high safety levels, public transportation can be safely also after dark (optimal for night shifts).

⁶⁷ Compared to South Africa’s Rand, the Rwandan Franc is stable with minimal fluctuation.

suggests that speaking capabilities can be built up, based on the foundation in language comprehension skills that already exist among Rwandan youths.

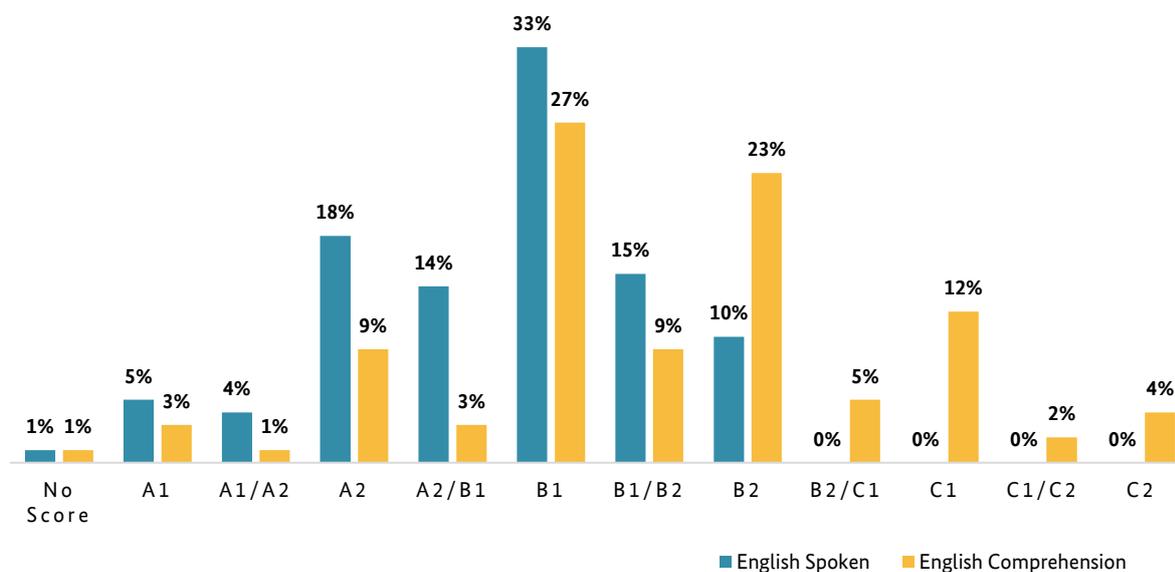


Figure 2: English levels among Rwandan job seekers: comprehension and spoken

Source: Harambee (2020)

Below, we make concrete policy recommendations for firms, ecosystem players, and especially for the Government of Rwanda (GoR) to discuss potential incentives dedicated to the GBS sector to address these concerns and to make the GBS sector take-off scenario more likely.

5 Policy Recommendations for Global Business Services in Rwanda

This section is divided into three parts, starting with brief advice for incoming global business services, then providing more detailed advice for the non-governmental GBS eco-system in Rwanda (i.e., training institutions, partner organisations, and the GBS sector firms that are already in Rwanda), and finally, in most detail, advice for the GoR. Some of this advice overlaps (e.g., both non-governmental and governmental bodies will need to work together on building the skills pipeline), but dividing this section by recipient rather than by substance seems more conducive for selective readers.

5.1 Policy Recommendations for Incoming Firms: Define ‘Impact’ & Plan Longer Term

GBS firms should define their organisation’s idea of creating ‘impact’: Rwanda has a dedicated developmental-state and a plethora of development partners. If incoming firms can articulate their ideas for creating ‘impact’ in Rwanda, the GoR and the ecosystem players are likely to be conducive to whatever that firm needs to succeed in Rwanda.⁶⁸

Plan longer term: As the sector is new and workers tend to need some time to become competitive, Rwandan workers will most likely not be able to compete with an established cluster like that of the Philippines in the first year. But the demographics, the governance, and the ecosystem are all such that Rwandan workers are ready to learn, work hard, and to become competitive as soon as possible if given the chance.

5.2 Policy Recommendations for Ecosystem Players: Showcase and Coordinate Training Options

Ecosystem players should register an industry association and set up a website: The content could be aligned with that of South Africa’s BPESA. The website should introduce core member firms,⁶⁹ showcase the emerging high-tech ecosystem and the IT landscape,⁷⁰ Kigali’s technical tertiary educational institutions,⁷¹ and point to the city’s co-working spaces, start-up hubs and IT labs.⁷² The site could further highlight the close collaboration with the GoR and international development partners,⁷³ introduce the relevant training facilities,⁷⁴ and link to lists of hotels, tourist attractions, and the best available office spaces in the city.

This industry association should then create an inward investor support team: A multi-agency office to support the fast-track of investments into Rwanda already exists within the Rwanda Development Board (RDB). A non-governmental team could be established within the industry association to help make it even easier for investors to access all inputs across different government departments.

Lastly, the industry association should coordinate the talent pipeline: if the best-case scenario becomes reality and one or two further GBS firms commit to investing in Rwanda in 2022, then other GBS firms will be intrigued to follow. But, depending on how fast first movers grow, the firms on the doorstep will have reason to doubt that Kigali can produce the workforce ready to meet such a sudden influx in demand. The eco-system of training institutions should thus plan for this best-case scenario and prepare to present a coherent roadmap for training some five to ten thousand GBS workers between today and 2025. To be credibly established and demand-driven, this will need to be a coordinated effort between several ecosystem players: e.g., the teams of MasterCard Foundation/Harambee and GIZ/DSAA, together with Careerbox, elev8, Education First, and possibly others, such as Generation (from Kenya) or TULA (from South Africa), and with supportive (advisory) roles for organisations like CapeBPO and BPESA. Concretely:

⁶⁸ By merely entering the country, a GBS firm creates significant impact by dint of providing well-paying formal jobs in an export sector that employs many women. Hence, to GBS firm executives, this is point should not be made as a demand, rather as a suggestion to align the vision for Rwanda’s development trajectory.

⁶⁹ E.g., introducing CCI, Deriv, iSON, SchnellMedia, SolvIT, Tech Affinity, Tek Experts, and VIPP Intersist.

⁷⁰ E.g., introducing Andela, AmaliTech, Awesomity Lab, Code of Africa, getINNOtized, IBM, Rode & Schwarz, and ZaTech.

⁷¹ E.g., introducing African Institute of Mathematical Studies, African Leadership University, Carnegie Mellon University Africa, International Center for Theoretical Physics, University of Kigali, and University of Rwanda.

⁷² E.g., introducing Impact Hub, kLab, Norrsken, and Westerwelle Startup Haus.

⁷³ E.g., introducing the close collaboration with the RDB, and the Private Sector Federation’s ICT Chamber (or a newly established GBS Chamber), and introducing some of the relevant partner organisations, such as the Digital Skills Accelerator Africa, GIZ, Harambee, and the MasterCard Foundation.

⁷⁴ E.g., introducing Atingi, Careerbox, Education First, elev8, Harambee, and Kepler.

- *For entry-level worker training (language training to climb the sector's entry barriers):* the GoR and partner universities are already in the process of conceptualizing a language upskilling program together with Harambee. This is meant to help assess the actual skills gap for GBS firms and to create a pipeline of potential young agents for arriving firms. The training starts with University of Rwanda's College of Science and Technology and focuses on spoken English and puts particular emphasis on giving students the tangible motivation (i.e., a job prospect in a global company) to improve their English skills. Another program sees Education First train 1,000 youths in language capabilities specifically for the GBS sector. This too should be coordinated from the beginning with the needs of the incoming GBS firms. If it works well, additional funds should be mobilized to scale it up.
- *For worker skill training (technical training offers to support upward mobility and career development):* The Digital Skills Accelerator Africa (DSAA) began operations in 2019 and has a growing network of (currently ten) IT and GBS firms in Rwanda (personal communication, Annabell Kreuzer, DSSA; Ayaan Jama, GIZ Rwanda, July 2022, social media). Similar initiatives already exist, prominently through Andela. These can be coordinated and advertised as subsidised upgrading training courses, and GBS firms can be approached for partnerships from the start. German partner organisations are closely involved with building this GBS cluster, ideas such as paid educational leave (*Bildungsurlaub*) or even a more integrated version of Germany's dual education system (*Ausbildung*) could be tabled with GBS firms and the GoR. Since several GBS-sector verticals have low entry barriers for workers, non-university graduates can be onboarded, e.g., if demand-driven dual education curricula can be tailored for the GBS sector. As the Kigali cluster is in its infancy, it will be malleable and open for experimentation for worker training for lowering the entry barriers (getting youths skilled for the GBS sector) and for fostering upward mobility (providing avenues for career development in the GBS sector). The way it is moulded in the beginning can influence the sector's trajectory in Rwanda (avoiding the potential problem of specialising too much on the lower rungs of the value ladder, and instead following the Indian path of nurturing future Silicon Valley CEOs).
- *For manager training:* CapeBPO of South Africa has for several years been connected to the leadership training (TULA) for some of the world's leading GBS firms. The above worker skilling initiatives should be combined with manager training that is particularly targeted at the GBS sector. As we recommend generous visa stipulations for foreign managers that should be gradually lowered over time (see below), this type of manager training could be a direct linkage opportunity for donor organisations to begin, together with the GBS firms, to fill the ensuing gap with local managers. This initiative could set a 50-50 gender quota for managers from the start, to support the growth of women leadership roles as Rwanda's GBS sector matures.

5.3 Policy Recommendations for the Government of Rwanda: Economic Incentives & Skills

The study found that GBS firms tend to decide on new delivery locations by examining the *ecosystem*, the *skills*, and the *comparative costs*. We established that Rwanda has a conducive ecosystem (with quality infrastructure and business friendly regulations) and thus has the potential to become an attractive delivery location. But enticing the companies to choose Rwanda will also require a push to (i) match the costs of competitor countries, and (ii) generate the needed skills training to become competitive at scale. We provide practical recommendations on how this could be achieved. This is not an exhaustive list of options. It merely offers decision-makers some tangible ideas that might be useful as the GoR crafts its own policies for the sector.

5.3.1 Overall Economic Incentives to Bring GBS Sector Jobs to Rwanda

The study proposes that Rwanda need not necessarily concentrate on competing with the lowest cost offerings of the GBS sector in other countries. Rwanda's GBS sector could develop a unique niche, built on some of Kigali's latent advantages –

such as cyber security, government reliability, worker flexibility, high-tech tertiary education, a thriving ecosystem of supporting partner organisations, and the opportunity for GBS firms to take part in creating maximum impact in a low-income society.

Nevertheless, Rwanda also needs to be cost competitive with comparable delivery locations. A benchmarking exercise (Harambee, 2019) revealed cost areas where Rwanda's competitiveness can be improved in skills, office rent, internet connectivity, and set up costs.

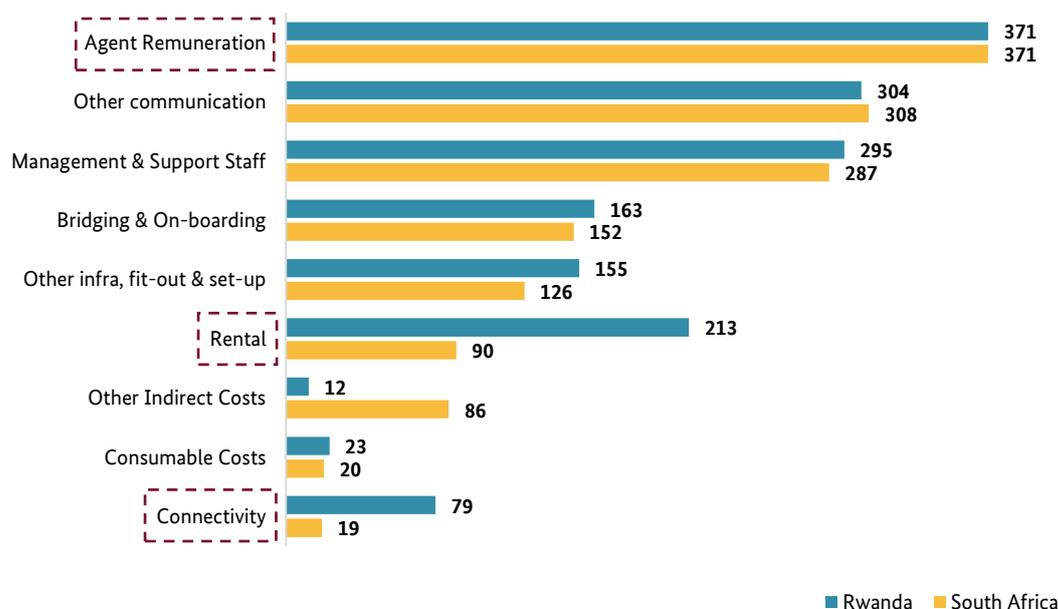


Figure 3: Global business services cost comparison between South Africa and Rwanda

Source: Harambee, 2019

In Figure 3, the largest cost differences were found in office rental space and internet connectivity. With wide-scale worker training, some of these costs could be offset by lower agent remuneration. But this should only be a temporary measure, since higher salaries are associated with higher task complexity, greater involvement of the lead GBS firms in the local cluster, and faster poverty reduction in the country.

For addressing the cost gaps via short- and long-term interventions, we thus suggest two guiding principles:

- *Reduce direct government expenditure where possible:* Compared with richer countries like South Africa, Rwanda has less fiscal flexibility. Hence, as direct cash payment subsidies can be difficult to implement, we recommend, where possible, policies that offer foregone revenue instead.
- *Align with precedent on existing incentives:* The GoR has experience with crafting innovative incentive structures for manufacturing investments. Where possible, incentives for the GBS sector should follow a similar structure.

5.3.2 First Addressing the Entry-Level Skills Gap & Considering Foreign Worker Permits

When considering the employee needs of large GBS firms, we differentiate between delivery agents (who provide the actual service to clients – e.g., by solving their problems while speaking to them on the phone, communicating via chat or through email), and the management staff (which can be extensive as several floor-managers are needed in larger operations). Since Rwanda's GBS sector is only just beginning to take root, the management level needs to be built up from scratch. To initially allow GBS firms to recruit and train the high numbers of agents needed to secure global contracts, the initial work permit

allotments should be expanded far beyond the currently existing frameworks. The current investment code offers only three work permits per registered investor, and the processes under the Directorate-General of Immigration and Emigration's (DGIE's) usual labour market test or occupations-in-demand list (ODL) can be lengthy and unpredictable.

This need for additional work permits would be further increased if Rwanda were to build out its ICT Hub Strategy ([MINICT, 2020](#)). This strategy emphasizes investment in pan-African educational institutions, the Kigali International Financial Centre, and enticing various start-up hubs and the global companies to locate their headquarters or training facilities for the region in Rwanda ([MINICT, 2020](#)). Linking the ICT Hub Strategy to the GBS sector would allow Rwanda to export services beyond that, which is initially possible with the existing talent pool. Examples could include workers with certain global language skills (such as Portuguese or German for specialized contact centre work), workers with certain IT skills (such as Python for specialized software development), or workers with local language skills (such as Oromo or Amharic for specialized social media content moderation).

The precise allotments will need to be determined over time and in collaboration with the companies. We propose to either offer a general quota for all professional staff, which would feed into the 'hub strategy' ([MINICT, 2020](#)), or to limit the permits to higher level staff, such as the management teams (including floor-managers and trainers). As companies are expected to develop new staff in Rwanda, these allotments should be decreased over time. Based on discussions with companies and industry experts, we propose to limit the percentage of foreign staff to 30-40% in the case of the Hub Strategy and to limit the quota of foreigners among the broader management team to 90% in the first year, 70% in the second year, 60% in the third year, and 40% thereafter.

5.3.3 Employment Subsidies

Delivery agents are at the heart of GBS operations. Their employment, training, and professional enhancement is of keen interest to governments who promote the sector. In Rwanda, GBS agent costs are roughly equal to those of similarly skilled South African agents.⁷⁵ In South Africa, however, under the updated DTI incentives ([GoSA, n.d.](#)), companies receive up to 124,000 Rand (USD 7,800) for each job created. Morocco also offers full exonerations of agents' income taxes for the first two years of employment and an additional training subsidy of EUR 550 (USD 560) per year for agents of up to EUR 3,150 (USD 3,200) per year for more advanced positions such as software engineers. Such subsidies in the region can make Rwanda effectively uncompetitive.

It will be fiscally difficult for Rwanda to offer employment grants that match those of South Africa or Morocco. Building a commercially attractive GBS sector proposition thus requires finding ways to further reduce costs instead.

One way to do this could be to entice GBS companies to on-board lower-skilled talent and upskilling them as trainees in-house, as is currently done by Tek Experts. This provides a welcome addition to government and donor partner skilling programs but initially further increases the costs to the companies (as training under-skilled new hires costs money). A way to offset this and offer a *de-facto* employment incentive without a direct payment is to offer income tax (PAYE) discounts. Such PAYE discounts are already successfully deployed under Rwanda's Manufacture and Build to Recover Program. We thus propose – considering the generous incentives paid out by competitor countries – to exempt agents from PAYE for the first five years, and to apply a 50% PAYE rate for years six through ten. While this should not set a precedent for other sectors, these would all be additional jobs in the formal sector, exporting services and hence generating additional revenue that would not exist if the companies were to choose to locate in one of the other countries.

⁷⁵ This is based on a salary benchmarking report (Right Seat, 2019), produced in support of a larger benchmarking study by Harambee (2019) in collaboration with RDB.

5.3.4 Office Rental Costs

Despite high vacancies of prime office space in Kigali, office rent in Kigali can be nearly twice as high as in Cape Town, and up to 30% higher than in Nairobi (Harambee, 2019, see also Figure 3).⁷⁶ To lower rental costs, the Government of Rwanda may need to invest in dedicated GBS parks. This has successfully been done for manufacturing businesses, through the implementation of Special Economic Zones and Advanced Factory Units, which offer immediately available and high-quality land and facilities to manufacturing investors. To avoid the mistakes of other countries, where developed ICT parks often did not suit the needs of the companies, a GBS park in Rwanda should only be developed in close collaboration with potential off-taker companies (Lerner, 2009). Because of this, and the several year-long lead-times to such major developments, the establishment of a GBS park can only be a medium to long term solution and therefore needs to be accompanied by more immediate short-term interventions.

The Government of Rwanda could bridge the gap until an attractive GBS park becomes available. Several options exist, including:

- *Vacant government buildings*: The Government can rent out dormant government buildings, where they exist, to GBS operators at a subsidized cost. This could include buildings that previously housed ministries or agencies or unused space at universities (as was done in the case of Andela). But as GBS companies tend to require large, open floor areas for operational efficiency and high-quality amenities and infrastructure to fulfil their client demands, it is unlikely that much of the available government real-estate can be utilized.
- *Government framework contracts*: As the GoR has a better understanding of the local real estate market and its dynamics, it could pre-negotiate lease agreements with landlords to offer lower costs to potential GBS firms coming into Kigali. It is, however, doubtful that landlords would be willing to offer significant rent reductions.
- *Direct subsidies*: To bridge the affordability gap, the GoR could directly subsidize office space. The GoR could either rent space and sub-lease it to the incoming GBS companies at a discount, or it could pay direct subsidies. To reach competitiveness with more established markets like South Africa, subsidies of around USD 5 per m² or 25-30% of costs would be required. As this would constitute a direct cash payment, this should be a last option on the list of possible incentive measures.
- *Value-added tax (VAT) of 0% (zero rating)*: Zero-rating rent costs of approved GBS firms would reduce *de-facto* rental cost by 18% as GBS firm exports are VAT exempt and input VAT therefore cannot be offset. This option appears as the most promising transition mechanism to temporarily reduce costs until dedicated GBS parks offer a sustainable solution. It constitutes a foregone revenue and not a direct cash payment but still achieves *de-facto* cost reductions of 18%.

5.3.5 Internet Connectivity Costs

While internet costs are a small fraction of operating costs for law firms, strategy consultancies or insurance firms, they are a sizeable cost to most GBS providers. For companies whose clients are nearly exclusively based abroad, a fast, stable, and affordable internet connection is key. What good roads and reliable shipping routes are to globally operating manufacturing companies, fibreglass internet is to the GBS industry.

For mobile internet, Rwanda does have globally competitive prices. But its dedicated fibreglass connections for businesses are still expensive. For example, while Rwanda's average cost for mobile internet is half that of South Africa's, a dedicated

⁷⁶ According to Knight Frank (2022), however, Kigali's top office real estate rental costs of around USD 20/m² are only slightly higher than Cape Town's (USD 18/m²) and significantly lower than Cairo's (USD 30/m²) or Accra's USD 28/m². Before any subsidies are paid out, this should be further investigated.

line for business clients in Rwanda costs twice as much.⁷⁷ This has many reasons, including low volumes, low customer purchasing power, and immaturity of the market.

As broadband is provided through private enterprises, the GoR's influence on price setting is limited. However, the Ministry of ICT and Innovation (MINICT) could lead a task force with the Rwanda Information Society Authority (RISA) and the Rwanda Utilities and Regulatory Authority (RURA), to investigate available policy options to reduce prices of dedicated internet connections, especially for GBS exporters.

Ideas that should be explored include bulk purchases at much reduced prices e.g., through RISA. This could either be solely dedicated to GBS companies or bundled with other purchases as this would utilize GoR's combined purchasing power. The GoR could then pass on the price reductions to the individual companies. Another option would be direct subsidies or some innovative agreement with private providers to offer industrial internet tariffs, not unlike the highly subsidized industrial electricity tariffs that are already offered to manufacturing companies in Rwanda.

5.3.6 Export Processing Zone Status for GBS Firms

Companies with Export Processing Zone (EPZ) status are allowed to import machines, equipment, and inputs free of duties with the justification that their goods are exported. To date, the EPZ regulation is exclusively applied to manufacturing companies. To our understanding, the regulation could allow regulators to apply the status to exporting services companies, too. To ease the setup processes for GBS firms in Rwanda, the GoR should clarify whether exclusively exporting (or minimum 80% exporting) GBS companies are eligible to receive this EPZ status. This would allow imports of their equipment – such as IT equipment, furniture and general office fit-out – free of customs duties. Much of the equipment imported by GBS companies is already both import duty and VAT exempt (as stipulated in lists published by MINICT). But issuing EPZ status would further reduce costs and ease the set-up process for GBS firms (e.g., on office furniture). Equally important: this would provide additional clarity and send a strong signal to GBS companies that the GoR considers them of equal importance to the country's development as manufacturing businesses.

Similarly, the government could explicitly list global business services in the investment code not only as a priority sector but extend it the same corporate income tax (CIT) rate reduction (to 15%) that it offers other priority sectors, such as manufacturing, in the current investment code.⁷⁸

5.3.7 Signal Strong Government Support to the Ecosystem and Advertise for GBS Firms

Aside from these investment incentives, other important measures come at little financial cost to the GoR. For example, it is of immense importance to signal strong government support to the industry, especially during infancy. This includes being receptive and responsive to issues encountered by the industry as it develops. An industry association, representing companies and ecosystem actors (perhaps based on the example of BPESA in South Africa), would be useful in providing an industry-wide perspective that can serve as the most important counterpart to the GoR in further developing the sector (see also Section 5.2 above).

The GoR can also support companies operating in Rwanda by promoting their services to potential clients. Especially in a world where more and more companies place a premium on sustainability and impact sourcing, aiming to use their

⁷⁷ Dedicated fiberglass connection costs USD 25,000/1,000 Mbps/month in Rwanda compared to around USD 10,000 for the same in South Africa. Note that stakeholder meetings convened by RISA following the initial findings of the Harambee (2019) benchmarking report already helped to reduce initial costs from USD 42,000 per 1,000 Mbps to USD 25,000 (see RDB, 2022) while lower quantities are still priced at around USD 40/Mbps (Harambee, 2019). Dedicated connectivity is offered a constant bandwidth whereas the much cheaper residential tariffs usually offer up to a certain speed but reduce the available speed depending on demand, which is not feasible for a GBS firm. The average cost per GB of mobile internet is USD 1.25 in Rwanda and USD 2.67 in South Africa (Cable.Co.UK, 2022).

⁷⁸ This will not have an immediate fiscal impact as globally exporting GBS companies pay a reduced 15% already but will showcase governments commitment to sector and will offer GBS companies greater certainty as the current investment code extends the CIT reductions to 80%-exporters for only a maximum of 5 years (RDB, 2021).

procurement to do good, platforms such as Davos' World Economic Forum, the UN General Assembly, the Commonwealth Heads of Government Meetings, and other major conferences that bring together leaders from the public and private sector can offer great opportunities to secure additional contracts (and hence jobs) for GBS firms in Rwanda.

5.3.8 Nudging Skills, Knowledge Transfer & Anchoring Innovation Capabilities in Rwanda

If the initial investments succeed, a lack of suitable and ready talent will likely be the most constraining factor for Rwanda's GBS sector growth. Therefore, in addition to investment incentives, a coordinated effort to build a talent pipeline is needed. To avoid this bottleneck, emphasis should be placed on scalability of the trainings with a commitment to train at least twice as many as are demanded at any given time by the GBS sector. The GoR and its training partners (see the above list under 'ecosystem') should be prepared to scale up training efforts to deliver on 5,000 to 10,000 workers by 2025 – at best with special attention to increased female labour participation. Much like the concerted effort of non-governmental ecosystem players will be needed (see above), the GoR, too, will need to support this with a concerted network of government entities – including RDB, MINICT, and MINEDUC. Crucial to building a successful talent pipeline are testing and matching:

- *Testing*: Language skills of all candidates must be tested and scored along internationally comparable standards. If done both prior and post training and across different training programs, the GoR can determine the most efficient training offerings and channel resources accordingly. Such training offerings should however also cater for the needs of female participants.
- *Matching*: Being able to match candidates with prospective employers is of crucial importance. Information on candidates from all GBS training programs should be collected and stored centrally to allow for seamless matching. We recommend building on the government's existing cooperation with and previous work done by GIZ/DSAA and Harambee, and to use their platforms to match prospective employees, with support and oversight from RDB's Chief Skills Office (CSO). In addition to the matching, this will allow the GoR to further strengthen its pitch by highlighting the existing talent pipeline and the methodological approach to increase it further. Harambee's reputation, especially among GBS companies active in South Africa, is likely to further strengthen Rwanda's case.

We recommend that external partners are utilized to provide the (gender-sensitive) trainings (e.g., Education First, Harambee, elev8, Careerbox), and that the GoR concentrate its own involvement on rigorously reviewing test results to better understand which trainings work better or worse (monitoring and implementing quality standards).

Similarly, rather than funding these trainings from government coffers, the Government of Rwanda's most essential role will be in sourcing, coordinating, and channelling outside funding to these trainings.

Lastly, over time, the GoR's role will be to support the Rwandan GBS sector's move towards more complex tasks, nudging the knowledge spill-overs from the lead firms in the global value chain (GVC) to entice local innovation capabilities. For this, RDB bureaucrats will need to establish the embedded autonomy (Evans, 1995) needed to both support and nudge these firms in the direction of making Kigali an increasingly more important part in their GVCs. For practical advice on how this is best done, the GoR should draw on the connections built in the Kigali ecosystem's connections to Egypt's ITIDA (via DSAA), South Africa's BPESA (via Harambee), and South Africa's CapeBPO (via GIZ). These organisations are far along on the pathway of creating future-oriented GBS clusters, and all three have indicated that helping Rwanda build another cluster could be mutually beneficial. RDB's interactions with these three organisations should thus be regularized. Apart from strategic advice on more and less fruitful deals with GBS firms, this regular contact would likely lead to tangible positive effects as well, such as building up regional value chains with firms already active in Egypt or South Africa, or coordinating Cairo-Kigali-Cape-Town site-visit round trips for GBS firms interested in establishing a presence in Africa.

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Annexure

Glossary Box: Digital services, and the various acronyms and terms used to describe them	
<p>Digital services are often described by various terms and acronyms, many of which are used interchangeably in the literature. This study keeps the use of acronyms to a minimum, but a few vocabularies in this sector are so specific, that this Glossary Box makes an attempt to clarify and define some of the most widely used terms.</p>	
Outsourcing vs. Offshoring	<p>'Outsourcing' is associated with lean production management, in which businesses concentrate on their competitive advantage by contracting other businesses to take on non-core activities. 'Offshoring' is simply outsourcing across borders. Other terms have entered the lexicon, such as 'Nearshoring' (to emphasise that the offshored location and/or time zone is nearby); 'multi-shoring' (an outsourced activity is conducted from several locations around the world); or 'flexi-shoring' (the activity is or can easily be switched from one offshored location to another). The term 're-shoring' refers to bringing previously offshored work back home to the end market, which is often associated with labour-saving task automation.</p>
Captive services	<p>The term 'captive services' is frequently used for non-outsourced services (i.e., services conducted in-house). This is often seen in the banking sector, where for security reasons, 'contact centres' (see below) are kept in-house. Captive services can also be offshored, as seen with technology companies who open subsidiary branches in offshored locations to provide certain services from far away, yet in-house.</p>
BPO vs. ITO vs. BPM vs. KPO	<p>BPO (Business Process Outsourcing) has long been the most widely used term for outsourced and offshored services. BPO is sometimes used synonymously with 'contact centre' (see below) but can include non-contact work (see 'back office' below). As BPO included a broad array of services, terms like ITO (Information Technology Outsourcing), KPO (Knowledge Process outsourcing) and BPM (Business Process Management) have emerged to distinguish services that are more technical (ITO) and the more complex and better paid (KPO & BPM). ITO work can range from software development at the top of the task-complexity ladder to data labelling at the bottom, whereas KPO tends to refer to highly paid consultancy work such as accounting or legal services.</p>
ITES vs. GBS vs. BPS	<p>As the sector diversified, distinctions like 'ITO' and 'KPO' effectively dethroned the term 'BPO' from an umbrella term for all outsourced/offshored services and reduced it to a 'leftover' term for less specialized services that had not given themselves a fancy new name. BPO became associated with less sophisticated work. This called for a new umbrella term, less tainted with the lowest paid forms of digital service work. Several terms emerged as candidates. In India and in the academic literature, the term IT-enabled Services (ITES or ITeS) became prevalent (sometimes referred to as BPO/ITES or IT & ITES to emphasise the umbrella nature of the term). In the UK and South Africa, the term Global Business Services (GBS) has become a prevalent contender for an all-encompassing umbrella term. This term is now frequently used in global consultancy reports (but it has not found its way into the academic literature to date, and some organisations, such as CapeBPO or BPESA (Business Process Enabling South Africa) still refer to both 'BPO' and 'GBS' as the umbrella term). For the purposes of this study, the terms ITES and GBS can be used interchangeably. A difference in the literature, apart from the region heritage, is that ITES can include <i>all</i> forms of digital services, including informal online platform work, and place-based services (see Study 1 above), whereas GBS has become the umbrella term only for formally outsourced, offshored, and captive trans-border business service activities.</p>
Impact sourcing	<p>The term 'impact sourcing,' coined by Janah (2017; sometimes also ascribed to the Rockefeller Foundation) describes a social business model BPO, where the impact the firm makes on a social objectives (usually empowerment and poverty reduction) is part of the core bottom line. Janah (2017) founded Samasource as a non-profit, but made clear that impact need not be confined to non-profit sector (Janah, 2017). E.g., a for-profit impact sourcing service provider (ISSP) is Sama's competitor CloudFactory. Over the past years, several much larger for-profit BPOs have made 'impact' part of their core mission statements. What is meant by 'impact' is left to the companies to define. And the term can thus run the risk of serving as a fig leaf for profit-maximising firms in the GBS sector. But a direction towards impact in the sector is clearly discernible, with companies like Majorel/Sitel, CCI, or Tek Experts working closely together with German Development Cooperation to define and implement their goals for impact (participant observation, 2020-21).</p>

voice vs. non-voice / front office vs. back office	The terms ‘voice services,’ or ‘voice-based services,’ are used interchangeably and refer to the classical call centre, where agents receive (inbound) or place (outbound) calls with customers, interviewees, or marketing targets. This and any other outward facing part of the BPO sector is called ‘front-office’, whereas ‘back office’ work requires no direct contact with anyone outside the firm. For example, social media content moderation, even though no direct customer relations tend to be involved, would be classified as front-office work, if it deals in real time with external content. Data labelling, on the other hand, can be performed by working one’s way through files of images offline – that is back-office work.
Call center vs. contact center vs. CEX/CX/CXE/CXM vs. CRM	Call center was the classic name for what is now more widely known as contact center work, simply because in the digital era, the points of contact between agents and customers are now not only voice but also non-voice, such as chat or email. The term ‘customer experience’ (often used in the abbreviation CX, CEX, or CXE) refers to what happens when any front-office interaction between an agent or a bot (see below) takes place. This entire business area is also referred to as customer relations management (CRM) and includes mainly receiving inbound inquiries and complaints calls/messages (e.g., technical or billing questions for telecommunication companies, or bookings for airlines) and initiating outbound marketing, sales, survey calls/messages. This is the largest sub-sector within the classical BPO sector (other subsectors in BPO are (i) ERM – Enterprise Resource Management, which, according to Fernandez-Stark et al. (2011) includes procurement, logistics, supply chain management; and (ii) HRM – Human Resource Management, which includes training, talent management, payroll, and recruiting (Fernandez-Stark et al., 2011). CRM, is also still the largest sub-sector within the entire GBS universe (at roughly 70% of employment), even though certain ITO tasks like social media content moderation or back office work like data labelling for machine learning have grown rapidly in the last years.
Online platform work vs. WFH vs. hybrid working vs. gigCX	<p>‘Online platform work,’ ‘online work,’ ‘online outsourcing,’ ‘online freelancing,’ or ‘online gig work’ are among the terms used to describe the phenomenon of signing onto a virtual platform</p> <p>WFH stands for ‘work from home’ in the GBS industry but has become a term used more broadly during the Covid-19 pandemic in many other sectors. While ‘online work’ describes freelance workers, WFH refers to formal employees (in this case in the GBS sector) who merely work remotely from home.</p> <p>‘Hybrid’ work can describe (a) the life of a fully employed GBS worker who works partially from home and partially in the office, or (b) a GBS company/department that employs both on-site workers and WFH workers.</p> <p>gigCX is a new phenomenon that has become prominent during the Pandemic by merging the above concepts. Specialized online labour platforms (such as LiveXchange) have emerged that provide freelance contact centre work. Buyers of gigCX platform services are not clients, but brick-and-mortar contact centres who seek to add a virtual layer of freelance contact centre agents on top of their existing (in-house or WFH staff), e.g., during spikes in demand for services, or, acutely, during shortages of staff due to social distancing measures.</p>
RPA vs. bots vs. Agents	RPA (robotic process automation) is the technology meant to automate much contact center work previously conducted by human GBS workers (agents). This technology often comes in the form of call answering bots or chatbots: algorithmically steered interactions without a human in the loop. As neural network machine learning entered the scene, this technology was widely advertised around the mid-2010s and led to an automation wave throughout the GBS industry. At the time of this writing, however, the transition process has all but failed. It has not led to the reduction of human agents. To the contrary, many in the industry have come to believe that bots will not replace human agents but rather need to be repurposed to help empower human agents (e.g., see CX Files).

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