

Skills for Virtual Gigs Research Summary

Focus on Kenya





Introduction

This literature research summary includes 1) a literature review 2) local Kenyan insights from companies about opportunities, challenges and skills for virtual gigs.

1) The literature review provides an overview of existing research on the global gig economy and narrows in on a subset of the economy – virtual gigs – particularly within microwork and online freelancing in Kenya. It further dives into the supply-side of the virtual gig industry by exploring the opportunities and challenges as well as the needs of workers that navigate the space. From the nature of virtual gig work to the skills necessary to perform tasks, the supply-side of the industry is layered with both promising and difficult narratives that must inform how workers generate income in Kenya and around the world.

The literature on the gig economy uses a variety of terms for jobs that are performed with digital devices (computers or smart phones), including digital jobs, online outsourcing, and online work.

This paper uses the term "virtual gigs" to highlight a specific focus on the segment of the workers within the gig economy that perform work using digital devices.

2) Local Kenyan company insights provide a lens into the experience of a training company, a company that matches virtual gig workers to employers and a gig service provider. These insights explore the realities, opportunities, and challenges of virtual gigs in Kenya.

The Global Gig Economy and Virtual

The world of work is fast changing as technological innovation shapes the way workers and employers perform their work and interact with one another in order to achieve their goals. As both employers and workers capitalize on technology, jobs that rely on the use of technology have broadened the scope of the "gig economy." For generations, "gigs" were essentially characterized as short-term, freelance, temporary, or project-based work done by independent contractors, as opposed to permanent or traditional jobs. While gig work has always existed, 1 it is now enhanced by technology, as gig platforms 2 connect workers with employers and work is performed remotely with the use of digital devices – without a need

employers and work is performed remotely with the use of digital devices – without for in-person or face-to-face interaction.

In 2018, Mastercard and Kaiser Associates determined the size of the global gig economy to be approximately \$204 billion USD in annual Gross Volume (GV) by assessing gig platforms through summarizing the total value of transactions by customers for gig services. Of the total size, gig workers made up two-thirds of the value, while the remaining portion was either collected as commission by digital platforms or distributed to third parties in the gig ecosystem (e.g., restaurant partners in food delivery services).³ This size is projected to grow to approximately \$455 billion by 2023 with growth linked to the increasing supply of gig workers coupled with an increasing demand from consumers and employers for gig services.⁴

^{\$204} billion USD 2018 2023

 $^{^1\,}https://www.fastcompany.com/90379491/how-gig-economy-work-has-evolved$

² digital platforms that allow independent freelancers to connect with individuals or businesses for short-term services or asset-sharing https://newsroom.mastercard.com/wp-content/uploads/2019/05/Gig-Economy-White-Paper-May-2019.pdf (2)

 $^{^3\,}https://newsroom.mastercard.com/wp-content/uploads/2019/05/Gig-Economy-White-Paper-May-2019.pdf$

⁴ https://newsroom.mastercard.com/wp-content/uploads/2019/05/Gig-Economy-White-Paper-May-2019.pdf (3-4)

While developed countries such as the U.S. currently lead with a GV contribution of 44% of the global gig economy, developing countries have a greater potential of supply of gig workers due to their large populations and vast size of lower-skilled labor. With increasing smart phone penetration and rising digital banking access, emerging economies are projected to represent a greater portion of the global gig economy in the future.⁵

Global Virtual Gigs Landscape

Greater access and usage of digital devices such as smart phones and computers has enabled gig workers to provide services or tasks using the internet – also known as virtual gigs. Virtual gigs refers to online outsourcing, microwork, or online freelancing and is characterized by employers hiring workers to "to supply services or perform tasks via Internet – based marketplaces or platforms."

Two Segments of Virtual Giggers

According to the World Bank, there are two segments of virtual giggers – microwork and online freelancing.

Microwork	is when "projects and tasks are broken down into microtasks that can be completed in seconds or minutes. Microworkers require basic numeracy and literacy skills such as image tagging, text transcription, and data entry." Microwork brings about \$400 million in revenue and employs fewer than 1 million people with workers making up less than one half of 1% of the world's labor force.8
Online freelancing	refers to contracting professional services by third-party workers. It often requires higher levels of expertise than microwork and attracts workers with more technical skills. Typically, projects are large and performed over long periods time (hours, days, or months), such as graphic design, web development, or technical report writing. ⁹

Types of Online Work

In a study by Mercy Corps, online work is broken up into three categories that demonstrate the level of technology that their work requires:

1	Tech-intensive work	which requires high digital skills and is created through the production and use of technology e.g. web designers;
2	Tech-dependent work	which requires intermediate digital skills and uses digital technology to varying degrees e.g. transcribers, and
3	Tech-enabled work	which requires basic digital skills and mostly uses technology as a tool to connect demand and supply e.g. taxi hailing drivers. ¹⁰

Based on these categories, virtual gigs can be characterized as tech-intensive and tech-dependent work. Since tech-enabled work does not require that the job use a computer or smartphone to perform work, it is not considered a virtual gig.

According to the World Bank's report in 2015, the majority of the demand for virtual gigs within the private sector is concentrated in Australia, Canada, United Kingdom, and the United States. Yet, this base is expanding, with the fastest-growing client countries like Finland, China, France, Russia, and Sweden on the Upwork platform. Coupled with this, virtual giggers and employers in Kenya and Nigeria reported that regional demand for their services is higher than local demand. Thus, virtual gig work in developing markets is predominately driven by employers in developed economies.¹¹

"The dynamics in the job market are changing. So many companies are outsourcing some services which are not core to their functions. In that case, they are creating space for freelancers and consultancy online. So, there is quite some space for those who want to look deeper."

- Young Virtual Gigger



 $^{^{5}\,}https://newsroom.mastercard.com/wp-content/uploads/2019/05/Gig-Economy-White-Paper-May-2019.pdf$

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⁷ https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y(7)

⁸ http://gcyerti.com/wp-content/uploads/2017/02/The-Nexus-of-Microwork-and-Impact-Sourcing_Final_ONLINE_02.28.17_v2.pdf (12)

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¹⁰ https://www.mercycorps.org/sites/default/files/Youth_Impact_Labs_Kenya_Gig_Economy_Report_2019_0_0.pdf (6)

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¹² https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y (28)

On the supply-side, almost two-thirds of virtual giggers are from the United States (which has the most workers), India, and the Philippines. Countries like Serbia and Romania contribute high numbers of virtual giggers relative to their total populations, while the African continent has the smallest representation of workers, with South Africa and Kenya leading. In addition, the English language speakers lead in the number of requests for virtual giggers, which indicates advantages of English-speaking populations on the supply-side. In the number of requests for virtual giggers, which indicates advantages of English-speaking populations on the supply-side.

Overall, the virtual gig landscape is growing along with the global gig economy. The World Bank projected that in 2020, the virtual gig landscape would generate gross services revenue (the total value of all transactions that pass through each virtual gig marketplace, which includes income generated by the firms and payments to workers) in the range of \$15 billion to \$25 billion. With this demand, it is unlikely that that the supply-side will stifle the growth – as projections show that there are enough workers to meet the demand. Furthermore, demand for virtual giggers could be heighted through interventions that improve worker skills as well as their perceived quality of their work.¹⁴

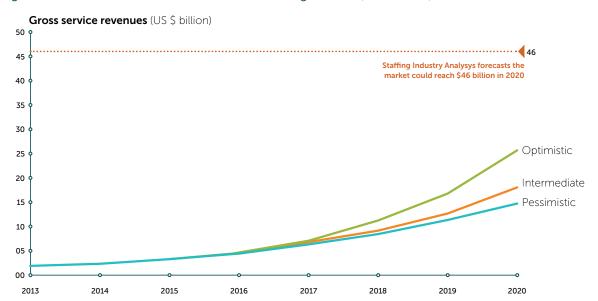


Figure 2.5 - Estimated Growth in Online Outsourcing Revenue, 2013-2020, \$ billion

Source: Dalberg analysis, based on historical revenue data accessed June 2014 from PricewaterhouseCoopers 2005; NASSCOM 2009, 2013.

Virtual Gig Worker Profiles:

Around the world, virtual giggers share some similarities across geographies. Despite differences in culture, languages, motivations, engagement levels, and other differences, virtual giggers share the following commonalities:15

- predominantly male and below the age of 35
- → different education levels depending on type of virtual gigs they engage in (e.g. microwork or online freelancing)
- > spend an average of fewer than 20 hours per week (larger proportion of microworkers work part- time in this way)
- → Income generation is the most common motivating factor in all cases.
- Most microworkers see virtual gigs as supplementary income
- Almost 50 percent of online freelancers report that virtual gigs are their only means of income

¹³ https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y (17)

¹⁴ https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y (26)

¹⁵ https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y (28)

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Risks for Virtual Gig Workers

There are various benefits for virtual giggers, including (1) potential to earn income (2) developing technical skills and soft skills, (3) the potential to upskill, gain traditional employment or education; (4) build social networks and (5) the potential to receive employment benefits (when available), such as health insurance. ¹⁶ Yet, there are still various risks for these workers, including: ¹⁷

- **Working conditions:** Many benefits and protections that are commonly provided for full-time or traditional workers, are not given to virtual giggers.
- **Volatility:** Due to the nature of virtual gig jobs it can be hard for workers to predict the flow, volume, timing, duration, and compensation.
- Nature of the work: For some virtual giggers, work can be isolating, especially when tasks are repetitive and "cognitively unchallenging." In some cases, this may lead to depression.
- **Race to the bottom:** Virtual gigs can lead to a "race to the bottom," where employers target the cheapest workers (those that charge the least) over considerations for quality or inclusion. It can also lead to governments deregulating the labor market in order to attract employment opportunities.

While virtual gig opportunities have the potential to help address youth unemployment outcomes, especially in developing markets, there are barriers for underserved young people in virtual gigs, such as lack of access to computers and internet as well as lack of skills needed to get jobs and thrive. ¹⁸

Virtual Gig Outlook in Kenya

Kenya is one of the countries in Africa with a high representation of virtual giggers. According to Mercy Corps, Kenya's online gig economy as of 2019 was \$109 million and employing 36,573 workers. This was comprised of ride hailing (\$45 million), online professional work platforms (\$55 million) and online rentals (\$5 million) and blue-collar matchmaking platforms (\$3 million). The Kenyan online gig economy is expected to grow by 33 percent by 2023 to \$345 million. ²⁰



Sectors and Types of Work

Virtual gigs cut across various sectors and encompass a variety of jobs. In 2013, Rockefeller Foundation and Dalberg identified key sectors where virtual gigs were accessible to youth in six African countries – Egypt, Ghana, Kenya, Morocco, Nigeria, and South Africa. The sectors were information technology, financial services, out-sourcing, hospitality and tourism, and retail.²¹ Across countries and sectors, it was projected that by 2020, nearly 300,000 jobs that could be accessed by disadvantaged youth would be online.²²



"Online work has created employment opportunities for youth. Online is like a large market on itself. People are participating more online that physically. A lot of businesses are going online. People notice a lot of the work going online. You reach out to a larger target market. It opens a lot of opportunities so long as you are accessible to smartphone and bundle. A lot of young people are on internet."

- Young Kenyan Virtual Gigger



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- 18 https://openknowledge.worldbank.org/bitstream/handle/10986/22284/The0global0opp0n0online0outsourcing.pdf?sequence=1&isAllowed=y(47)
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Number of digital jobs created that are accessible to unemployed your across Egypt, Ghana, Kenya, Morocco, Nigeria and South Africa

Information technology

Financial services

Out-sourcing Hospitality and tourism

Retail

95000

94000

88000

6000

3300

Within the sectors, several jobs can be accessed by virtual giggers. Among job opportunities are computer programming, data analysis, and graphic design for high skilled virtual giggers and image identification, transcription, data collection and processing, and translation for low-skilled microworkers.²³

The table below features microwork tasks that are in high-demand organized by level of complexity according to research by Bayan Global.²⁴

HIGH-DEMAND MICROWORK TASKS

Basic Entry Level Tasks	More Complex Tasks
Data entry	Voice and data transcription
Tagging or screening images	Transcribing audio and handwritten files
Search and click	Entering data in Word
Bookmark webpages	Write reviews
Watch videos	Post comments on blogs
Data validation	Post tweets
Download app and install	Administrative support
Voting	Checking or honing algorithms

In addition to being satisfied with their income as compared to traditional jobs, microworkers cited positive aspects of their work. Including allowing "them the freedom to be creative, make decisions and work with clients from various industries and backgrounds which…exposes them to other opportunities, they would not otherwise get in traditional employment settings."²⁵

Across sectors in Egypt, Ghana, Kenya, Morocco, Nigeria and South Africa, four groups of jobs are in high demand and can inform virtual gig skills development. These jobs include: customer service agents, back office support agents, IT support agents, and content developers.²⁶

²³ https://www.mercycorps.org/sites/default/files/Youth_Impact_Labs_Kenya_Gig_Economy_Report_2019_0_0.pdf 22

²⁴ http://gcyerti.com/wp-content/uploads/2017/02/The-Nexus-of-Microwork-and-Impact-Sourcing_Final_ONLINE_02.28.17_v2.pdf 12 - 13

²⁵ https://www.mercycorps.org/sites/default/files/Youth_Impact_Labs_Kenya_Gig_Economy_Report_2019_0_0.pdf 32

 $^{^{26}\} https://assets.rockefeller foundation.org/app/uploads/20131217164951/Catalyzing-Inclusive-Opportunities-For-Youth.pdf~(7)$

Virtual Gigger Motivations

Much like other gig workers, virtual giggers have diverse motivations for engaging in the industry. In Kenya, some microworkers in the virtual gig industry who engage in task-oriented work such as transcription and data entry are motivated by the high renumeration according to Mercy Corps study.²⁷ The World Banks' study also supports this from a global perspective, finding that "income generation" was the most common motivating factor for virtual giggers.²⁸

In addition to obtaining an income, virtual giggers have secondary motivations. Through qualitative interviews, the World Bank's found that the motivations were:²⁹

- O Lack of ability to find traditional work
- O Inability to perform traditional work for health reasons
- O Inability to perform traditional work for cultural reasons
- Need for autonomy and flexibility
- O Reluctance to migrate away from family to find work
- O Have a passion for the work



In some cases, virtual giggers saw online freelancing on a part-time basis as a pathway to exiting their traditional jobs and transitioning into self-employment or entrepreneurship.³⁰

Quotes from Youth about Opportunities in Virtual Gigs



What sparked my interest in online work is the salary. There is no salary scale in online work. It depends with your time and speed.



I was introduced to online work by a friend. I am a young mother. I used to be an editor and photographer. What sparked my interest is that you get paid by just working from home.



If I have a wedding to attend in the morning or in the afternoon, then I can work at night.



I do online work because it doesn't have boundaries. Through online work, you can network and engage with people across boundaries. Offline work has restrictions such as permit, taxes etc.

Skills and Training

The majority of the literature on virtual gigs emphasize the importance of both soft and technical skills for workers. The skills are either developed in formal training programs or through learning on the job. The technical skills depend on the specific type of work that a virtual gigger engages in. For instance, a microworker may need basic digital literary skills like typing while an online freelancer may need programming language skills.³¹ The specific type of skill and level of mastery depends on the sector, tasks, and functions needed by the employer.

Online freelancers have more opportunity to develop soft-skills because of the nature of their work, which is more diverse and complex than microwork. Yet, microwork and online freelancing have overlaps in soft skill development. For instance, they all need communication skills and time-management to succeed. Yet, online freelancers may require additional soft-skills like "negotiating with clients and managing subcontracted workers." According Tracie Freeman from Rockefeller Foundation, which funds digital job focused trainings in Africa.

A review of the literature spanning diverse perspectives from donors, training programs, and researchers on skills for virtual giggers and the future of work revealed the breath of technical and soft skills that are necessary to thrive. An analysis of skills mentioned was conducted across eight sources and showed that there are five top skills that are keen for virtual giggers – teamwork/collaboration, communication, creativity/innovation/imagination, time management, and problem solving. The overall top skill with the most agreement across the literature was – teamwork/collaboration.

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[Rockefeller] presumed that the individuals would require predominantly technical skills training (the hard skills), some phone skills, call center skills, etc. to get them ready and up to speed to fulfil the tasks / jobs they engaged with. But what we actually found is that the technical skills are often less than forty to fifty percent of the training interaction and where more focus was needed is on the soft / 'ready to work' skills. It was working on attitude first, then technical components.³³

Of all the skills mentioned in the literature, 80 percent were soft skills and 20 percent were technical skills. This difference in the numbers could result from the sources not focusing on particular jobs in the virtual gig industry. Since technical skills are often unique for every job, the broad focus of the literature did not enable more specificity in technical skills. In addition, the prevalence of soft-skills could be related to the previously cited evidence that soft-skills are critical for all virtual gigs and referenced more due to their cross-cutting application (See Appendix I: Literature Review of Skills).

MOST MENTIONED SKILLS FOR VIRTUAL GIGGERS IN LITERATURE



³³ http://gcyerti.com/wp-content/uploads/2017/02/The-Nexus-of-Microwork-and-Impact-Sourcing_Final_ONLINE_02.28.17_v2.pdf (37)

The potential for skills development in virtual gigs is more accessible to online freelancers who often have more advanced skills than microworkers. This reality makes it easy online freelancers to use self-learning to further build their skills. The inherent opportunity that favors youth with more technical skills leaves underserved youth who lack those skills on the margins.³⁴

While some virtual giggers develop skills through training programs, on-the-job skills development is common and has proven to be beneficial for both workers and employers. When a virtual gigger engages in work, they are able to gain experience and skills, which they can build further with more opportunities. This growth increased employability that can also translate to traditional jobs.³⁵ Evidence from impact



- Young Virtual Gigger



sourcing company Samasource shows "that 42% of workers gained soft skills, 38% gained technical skills, and 19% reported an increase in their familiarity with work environments and a stronger resume." In addition, CloudFactory, a virtual gig platform surveyed 2,543 of its microworkers in 2015 and found that they believed their work provided opportunities to learn new skills, enhanced their future job prospects and long-term learning potential. The surveyed 2,543 of its microworkers in 2015 and found that they believed their work provided opportunities to learn new skills, enhanced their future job prospects and long-term learning potential.

Platform-based Upskilling

Platforms play a key role in the gig world. With the digitization of our economies, platforms are creating work and entrepreneurship opportunities for young people through marketplaces where companies and individuals exchange labor, goods and services through digital means. A recent study finds that the increasing 'platformization' of economies in sub-Saharan Africa has resulted 300 transaction platforms operating in eight major markets in the region. 80% of these were founded in Africa ³⁸. These platforms create a variety of self-employment opportunities that offer new income sources and the ability to scale efforts of small-scale enterprises through e-commerce.

According to another recent study by Caribou Digital and the MasterCard Foundation, platforms are directly investing in upskilling gig workers; "Through platform-led upskilling, platforms benefit by accelerating sales and increasing the volume, scope, and quality of goods and services on offer while producers [and virtual giggers] benefit by learning new skills, improving their craft, and selling more." ³⁹ Platforms are offering interpersonal, online and in-work flow training opportunities to workers. At scale, platform-based upskilling presents a great opportunity for partnerships with the private sector to mitigate skills gaps and improve youth livelihoods.

Gender and Social Inclusion

Like other types of labor, issues of gender and social inclusion persist in virtual gig work in Kenya. Women and youth face barriers based on their identities that hinder their ability to access or thrive as virtual giggers. The challenges that women face include:⁴⁰



Women are less likely to look for work online: Women in slum areas and informal settlements in Nairobi, are a third less likely to use the internet to look for work. In addition, they are less likely to engage in online work due to not having enough information or sensitization about the opportunities available. They also perceive gig work as unstable. In addition, globally, women report that their families oppose them being online because perceived lack of safety.⁴¹

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- 35 http://gcyerti.com/wp-content/uploads/2017/02/The-Nexus-of-Microwork-and-Impact-Sourcing_Final_ONLINE_02.28.17_v2.pdf 48
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- https://s4ye.org/sites/default/files/2018-09/S4YE%20Digital%20Jobs%20for%20Youth_0.pdf (42)

- **Social-cultural norms about jobs:** Overall in Kenya's gig economy, gig work is dominated by men with a few women occupying specific jobs such as transcribers within the virtual gig industry.
- **Limited ownership of mobile technology:** Women's ability to obtain virtual gigs can be affected by their limited access to computers or smartphones that enable them to access platforms for jobs, especially in rural households.
- **Availability:** young women have family and household responsibilities that limits the time they have to work.
- **Young women's confidence:** Training companies cited lack of confidence in women that they trained for work in the gig economy in Kenya.
- **Disability:** Globally, disabilities and particularly women with disabilities are significantly less likely to have access to the internet and technology. 42 Yet, people with disabilities could benefit immensely from virtual gigs because of "features such as the ability to work from home, avoid the frustrations of navigating inaccessible transportation, vary the pace of individual or multiple tasks, set a flexible work schedule, determine whether or not to reveal one's disability status, and use their personal adaptive technologies." 43

The in Appendix II displays the wealth of barriers that women face around the world when entering digital work, including virtual gigs. These barriers generally fall into the following categories of (1) restrictive laws and regulation; (2) unequal access to education; (3) stereotypes, biases, and social norms; (4) safety and security concerns; (4) discriminatory work practices. 44

While there are many challenges that determine women's entry and growth in virtual gigs, a critical element of the industry that aligns with women's needs is the flexibility of seeking and performing work.⁴⁵ Women have opportunities to choose when they seek work, the duration, and when the perform work in order to balance other priorities in their lives while earning income.

In order to improve inclusion in virtual gigs, impact sourcing is proposed as a key solution. Impact sourcing is "online outsourcing that focuses exclusively on employing disadvantaged individuals, often in developing countries, who experience specific barriers to employment." These barriers may include gender, disability, age, location, mobility constraints, educational level, lack of job opportunities, or poverty. Impact sourcing encompasses high-quality work that has positive impact on workers, their families, and their communities.⁴⁶

The virtual gig space also offers opportunities for youth in Kenya, as the country faces a high youth unemployment rate. For youth in virtual gig work, there are some positives according to Mercy Corp's research, including:⁴⁷

Improvement in their livelihoods: Youth believe their livelihood has improved a result of obtaining decent and stable income through virtual gigs. For instance, they can send their children to school, support aging members of their families, or further their own education.

Pathway to Entrepreneurship: Microworkers have been able to open agencies where they employ and train other youth for virtual work.

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- http://gcyerti.com/wp-content/uploads/2017/02/The-Nexus-of-Microwork-and-Impact-Sourcing_Final_ONLINE_02.28.17_v2.pdf (14)
- ⁴⁷ https://www.mercycorps.org/sites/default/files/Youth_Impact_Labs_Kenya_Gig_Economy_Report_2019_0_0.pdf (39)

Challenges that Virtual Gig Workers Face

While microworkers in Kenya's virtual gig economy express gains from their work, they also have challenges. These include:48

Lack of consistent job opportunities: Virtual giggers spend a lot of time searching for work, which does not always result in obtaining a job. Since the supply of workers is high in comparison to the demand, these some workers find it difficult to get jobs – especially those with little specialized skills.



- Young Virtual Gigger



- → **High international competition:** Virtual giggers that use international online platforms to seek work face competition with non-local virtual giggers in-terms of setting competitive compensation rates, since employers choose the cheapest rates.
- → Perceptions of quality of work: Employers often favor low-cost is favored over quality of work. Particularly when Kenyan's face competition with international workers, the quality of work by international workers is perceived as better. Thus, making it difficult to secure international employers.
- → Race to the bottom: Employers are drawn to low-cost offers from virtual giggers which makes workers feel pressure to lower prices, even when the their work is worth more in the local traditional work market.

"Clients go for the cheapest bidder. The amount of work you put into a project is not commensurate with the price."





- High cost of work: Virtual giggers in Kenya have costs associated with their work. For instance, some local platforms charge high subscription fees on their platforms. This reduces the income that virtual giggers are able to obtain.
- → Lack of Labor Laws: The virtual gig industry in Kenya is not governed by labor laws. As a result, virtual giggers are vulnerable to potential exploitation or disputes with employers.

"We need to help youth [learn] how to identify authentic virtual gigs. We also need to come up with protection measures to avoid fraudsters in online gigs."





Company Insights on Virtual Gigs in Kenya

Between December 2019 and February 2020, Kenyan companies in the virtual gigs space were identified and interviewed in order to obtain insights for understanding the skills and support that youth need to obtain consistent and compensated virtual gigs. The companies that were interviewed represented different segments of the virtual gigs space that could provide diverse perspectives on the supply and demand side of the industry in Kenya. The three companies consisted of a training company, employment platform, and virtual gig service provider.

Training Company

eMobilis creates opportunities for local talent by training them on Mobile and Wireless Cellular Technologies. Their trainings focus on future readiness, freelancing, working collaboratively, presentation skills, communication, as well as cybersecurity and graphic design.

Virtual Gig Service Provider KaziRemote is an impact sourcing transcription service providers in Kenya. The offer human generated transcription services as a way of creating jobs and changing the youth unemployment narrative in Kenya. KaziRemote works with both global and local clients providing safe, secure and cost-effective Transcription, Subtitles, Captions and Translation services.

⁴⁸ https://www.mercycorps.org/sites/default/files/Youth_Impact_Labs_Kenya_Gig_Economy_Report_2019_0_0.pdf (32-34)

Employment Platform

BrighterMonday is East Africa's #1 job website. Founded in Kenya in 2006 and operating in all East African markets, BrighterMonday is committed to the goal of maximizing the opportunities for East Africa's job seekers and employers.

Each company provided their experiences by answering questions that were most relevant to their particular work in the virtual gig space.

Trends in the Virtual Gigs Space

Training: eMobilis and KaziRemote shared that training virtual giggers is on the rise. According to KaziRemote, "low entry level workers have either taken online courses or self-trained in relevant and in-demand skills such as data science and software development." An example of training leading to work, include at the University of Nairobi that enabled professors/political analysts to work through youtube.

Geography: When it comes to transcription, KaziRemote noted that there has been a shift in the geographic location of where virtual gig work comes from (those that need services). In the past, most of the work came from the United States. Today, transcription work that is available on employment platforms are mainly from Europe and Asia with clients looking for transcription in their native languages.

Technology – Advanced technologies have an effect on Transcription work. For instance, there has been a shift to transcribing for Artificial Intelligence or natural language processing. While transcription work is available, the type of areas that the work is applied to has shifted. In addition, there has been an increase in gig work platforms that connect employers to workers. Local platforms like Kuhustle.com are now in the space and help connect SME's with virtual giggers by providing a space for them to showcase their portfolio and gain credibility through feedback.

In-Demand Gigs

There are a variety of gigs within the virtual gig space. Yet, there was agreement by eMobilis and KaziRemote that three types of gigs were in demand – **transcription**, **virtual assistance**, **and writing**, **including academic and legal writing**. Other gigs these companies cited as in-demand were:

- Digital marketing
- SEO and content creation
- Web development
- Data entry
- Online research

Customer care service

Among these, KaziRemote noted that the types of work growing in the industry, include web content writers, virtual assistants, social media managers, legal researchers and the customer care service providers. In addition, eMobilis saw growth in additional gigs, including:

- Social media businesses
- O Social media influencer engagement/monetization
- Freelance marketing
- Content creation on YouTube
- O Graphics design freelancing
- Software engineering freelancing

Digital marketing

According to KaziRemote, data science has gained attention and is trendy, yet it is not clear how it has translated into an influx of data scientist in Kenya.

Skills for Virtual Gigs

As evident in research, the types of hard skills necessary for virtual gigs vary based on the sector and role of the gig. For the types of training that eMoblis offers, they believe that hard skills in software development, research, business and entrepreneurships skills, and digital marketing are important. Yet, for KaziRemote's focus on transcription, English language skills are important, particularly grammar skills.

When it comes to soft-skills, there is more agreement among the three companies about the importance of communication. For all the companies, communication in speaking and writing is essential for the variety of virtual gigs that their companies focus or interact with. Other soft skills mentioned by the companies varied. These were netiquette skills (online etiquette), adaptability, discipline, creativity, and work ethic.

According to BrighterMonday, virtual gig employers are looking for workers with key skills, including work ethic, time management, problem solving, and social skills.

Diversity and Youth Access in Virtual Gigs

When it comes to diversity and youth access to virtual gigs, all three companies were in agreement that it is a challenge. Underserved youth have the most difficulty accessing virtual gigs opportunities. eMoblis and BrighterMonday believe that some of the barriers to access are

- O Lack of skills (both tech/digital skills and literacy)
- O Lack of awareness/exposure to virtual gigs
- O Lack of or challenges with internet connectivity, especially in remote areas
- O Security issues

Diversity among virtual workers is also a challenge. While eMoblis saw programs it administered as combatting the perception that the field is male dominated (due to maintaining gender balance), KaziRemote shared that the landscape is still dominated by men. In addition other factors contribute to a lack on inclusivity in the space. According to KaziRemote, the virtual gig economy favors urban living individuals due to the requirement of internet connectivity. Platforms and organizations like Riziki Source are working to expand access to work opportunities to people with disabilities, many still experience barriers to securing work.

Youth Training for Virtual Gigs

eMoblis and KaziRemote offer trainings for youth who are interested in virtual gigs. While eMoblis focuses on a variety of topics, including cyber security and graphic design, KaziRemote specializes in transcription. Their learning on training youth with the skills needed to succeed in virtual gigs are:

Topic	eMoblis	KaziRemote
Delivery	Length varies; Virtual trainings couples with in-person trainings are most effective (blended learning)	7 to 10 days of training of online training; also possible in-person.
Outcomes of Trainings	 Problem solving skills Exposure into career paths Application of tech skills for commercial outcomes. Career growth Kickstarting entrepreneurship 	 Understanding transcription Setting up an online platform profile Bidding for work Typing Word processing
Number of youth	n/a	Up to 20
Disability Accommodation	No accommodation for disabled	No accommodation for disabled

Impact of COVID-19 on the digital gig economy

The World Bank forecasts a 5.2% contraction in global GDP in 2020 due to the COVID-19 pandemic. The gig economy is already feeling the impact of this economic downturn. Microwork platforms like Uber and Lyft which require inperson interactions have experienced sharp declines in business and have had to layoff thousands of workers. At the same time, some platforms like Freelancer and Upwork are experiencing noteworthy increases in job postings for online work. Freelancer recently released its Fast 50 report which shows a 41% increase in job postings for the second quarter of 2020 [post-COVID19] compared to the same period in 2019. According to Upwork's "Future of the Workforce Report", 73% of hiring managers are maintaining or increasing their hiring of freelancers to manage disruptions from the COVID-19 pandemic. Virtual work opportunities are continuing to grow during this uncertain and difficult economic period and these opportunities offer young people pathways to economic resilience, incomes and career development.

Implications for Further Research or Interventions

Country Specific Research

While the literature gives tremendous insight into the virtual giggers industry, there are various limitations and vast opportunities for further research and interventions in the field. It should be noted that most of the future projects about the growth of virtual gigs stop at the year 2020. New projects are needed in order to adequately assess needs and opportunities on the supply-side and demand-side. In addition, more country specific research is necessary. While there are some studies that focus on Kenya, and some recent studies focused on East Africa, the majority are globally focused. More targeted data focused on individual countries and cities is needed.

Soft Skills

The emphasis on soft-skills in the literature showcases their importance in virtual gigs. Yet, more research is needed on the technical skills needed for particular types of online freelancing or microwork. For youth and others seeking to prepare for entry into virtual gig work, insights on virtual gig pathways can help prepare to enter the industry.

It is evident that on the supply-side, training interventions can help youth seeking virtual gigs through providing technical and soft-skills development. While on the job learning is effective, it favors skilled virtual giggers, so it is important to provide opportunities for underserved and vulnerable youth to develop their skills so they are well-positioned for virtual gig entry.

Partnerships between development practitioners and platforms offer new opportunities to scale and increase access to skills development, and on-the-job training, particularly for marginalized and underserved youth.

Marginalized and Underserved Youth-focused Interventions

Key approaches and interventions specifically targeting young women are essential for addressing the needs of this group in the virtual gig space. While trainings and other skills development initiatives are needed for young women, demand-side interventions that encourage employers to consider inclusion factors, and perhaps use impact sourcing models in their recruitment of virtual giggers can help young women as well as other marginalized group access and sustain virtual gigs.

Self-driven Learning

Since on-the-job self-driven learning has been effective for online freelancers, this approach can be adopted for interventions that target underserved and vulnerable youth seeking entry into virtual gigs. Interventions for this population must include skills development for growth mindset and continuous learning in order to strengthen the ability for these youth to learn on the job. In addition, such interventions should embed opportunities for youth to obtain work and practical strategies that can be used to learn while working. Peer networks and peer support can be valuable support systems for self-driven learning for youth virtual giggers.

Virtual Gigs Transition into Sustained Careers, Self-Employment and Entrepreneurship

Virtual gigs bring the marketplace to youth and offer opportunities to use digital technology to exchange labor, goods and/or services for an income. Some skills development trainings and learning resources have started to emerge to support young virtual gig workers. However, more needs to be done focusing on soft skills development and career support for youth. Virtual gigs have been overlooked as work opportunities that can open doors to sustaianble career paths in freelance, self-employment, fulltime work or entrepreneurship. Recognizing these career possibilities is the first step. Development practitioners and researchers need to invest in research to better understand the kind of career opportunities and career paths available to youth through online work. This research can also identify the kind of support youth need to effectively leverage virtual gigs to transition into sustained careers, self-employment and entrepreneurship.



"Working online and being your own boss encourages flexibility. It encourages you to go for different goals. Once you start getting substantial income online, you have ample time to empower yourself through conferences, trainings and further your studies... Working online gives you that freedom to go for bigger goals."



"I feel like my own boss – it feels nice to work for your own rather that working for someone else."

- Young Virtual Gigger





Appendix I: Literature Review of Skills

Skill and Literature Source	Count of skill *
Adaptability	2
Accenture	1
PWC	1
Agility	1
Accenture	1
Analysis and application of data	1
Accenture	1
Analysis and synthesis	1
Accenture	1
Awareness of and ability to use professional tools and programs	1
Accenture	1
Awareness of data sources and applications	1
Accenture	1
Business conduct and protocol	1
Accenture	1
Coding	1
Accenture	1
Communication	5
Accenture	1
Banyan Global	1
Mery Corps	1
S4YE	1
World Bank	1
confidence building/self-confidence	3
Banyan Global	1
Mery Corps	1
S4YE	1
confidence-building/self-confidence	1
S4YE	1
Content creation	1
Accenture	1

Continuous Learning	1
Accenture	1
Creativity/Innovation/Imagination	5
Accenture	2
PWC	2
World Bank	1
Critical thinking	3
Accenture	2
S4YE	1
Curiosity	1
Accenture	1
customer relations/client engagment	3
Mery Corps	1
S4YE	2
Data interpretation	1
Accenture	1
Decision making	1
Accenture	1
Delegation	1
Accenture	1
Design thinking	1
Accenture	1
desktop publishing	1
World Bank	1
Digital literacy/skills	3
Accenture	1
PWC	1
World Bank	1
Emotional Intelligence	1
PWC	1
Empathy	2
Accenture	1
PWC	1
Employability basics	1
Accenture	1
	-

Entrepreneurial mindset/skills	3
Accenture	1
PWC	1
S4YE	1
Feedback	1
Accenture	1
Financial management	1
Mery Corps	1
Flexibility	1
Accenture	1
Focused attention	1
Accenture	1
Global mindset	2
Accenture	1
S4YE	1
Graphic and visual design	1
Accenture	1
Grit/perseverance	1
Accenture	1
Growth mindset	1
Accenture	1
independent working	1
S4YE	1
Job searching	1
Accenture	1
Judgment	1
Accenture	1
Leadership	2
Accenture	1
PWC	1
Listening	2
Accenture	2
Management of direct reports and supervisors	2
Accenture	1
World Bank	1

marketing skills	1
Mery Corps	1
Mindfulness	1
Accenture	1
Negotiation	2
Accenture	1
World Bank	1
Numeracy	1
Accenture	1
Openness	1
Accenture	1
Optimism	1
Accenture	1
Organization	1
Accenture	1
Planning and execution	1
Accenture	1
positive work habits	1
Banyan Global	1
Prioritization	1
Accenture	1
problem solving	5
Accenture	1
Oxford	1
PWC	1
S4YE	1
World Bank	1
programming languages	1
World Bank	1
punctuality	1
S4YE	1
Reading comprehension	1
Accenture	1
Receptiveness to change	1
Accenture	1

reliability	1
World Bank	1
Resilience	2
Accenture	1
S4YE	1
risk management	1
PWC	1
Self-awareness	2
Accenture	1
PWC	1
Self-control/management	3
Accenture	2
PWC	1
Self-efficacy	2
Accenture	1
Banyan Global	1
self-management/control	1
S4YE	1
Self-motivation	3
Accenture	1
S4YE	1
World Bank	1
Sequencing	1
Accenture	1
Service mindset	1
Accenture	1
Social intelligence/skills	1
Accenture	1
Social intelligence/skills	1
Banyan Global	1
Software design	1
Accenture	1
STEM skills	1
PWC	1
Storytelling	1

Accenture	1
Teamwork/Collaboration	6
Accenture	2
Oxford	1
PWC	1
S4YE	1
World Bank	1
Time management	5
Accenture	1
Mercy Corps	1
S4YE	1
World Bank	2
Understanding of professional tols and programs' functionality	1
Accenture	1
Working memory	1
Accenture	1
Writing	1
Accenture	1
Zest	1
Accenture	1
Grand Total	122

^{*} Each skill is counted only once per literature source (despite number of times it appears in source). The World Bank had 2 different sources that were reviewed.

Appendix II: CONSTRAINTS TO YOUNG WOMEN'S DIGITAL EMPLOYMENT

CONSTRAINT	DESCRIPTION	GROUP
	Low digital literacy and ICT skills	WY
	Lack of complementary non-ICT skills	WY
	Household and care responsibilities (childcare, elderly care, sibling care)	W
_	Lack of voice and agency	WY
dua	Limited mobility	WY
ndividua	Low digital self-efficacy and self-confidence	WY
Ĕ	Bias against pursuing ICT-related education & careers	W
	Low representation in STEM-edication & careers	W
	Limited ownership & control of assets	WY
	Financial exclusion	WY
	Online safety concerns & threats of violence	W
S	Lack of access to capital	WY
lures	Lack of information about digital work opportunities	WY
s & Fai	Lack of information about workers	WY
Market	Gender pay gap	W
Market: Government	Promotion bias	W
ove.	Occupational segregation	W
Ŭ	Low bargaining power	WY
	Availability of relevant ICT infrastructure	WY
CLO	Conflict and violence	WY
Macro	Constraints to business creation and job creation	WY
	Age cohort-size	Y