Digital Sector
Skills Gap Report

Digital Sector

Skills Gap Report

Table of Contents

Acknowledgments

All pictures were sourced from https://unsplash.com/

Who We Are

We are Nigeria's No. 1 Career Platform

Founded in 2009, Jobberman's services have grown over the years with an attendant success rate which has helped us to remain the No. 1 recruitment platform in Nigeria, with over 2 million candidates and 60,000+ employers.

We are part of the Ringier One Africa Media Group (ROAM). ROAM is one of Africa's largest digital publishers, allowing global brands to reach targeted audiences nationally, regionally, continentally and by each vertical in which we operate.

Jobberman leverages technology and data-driven recruitment solutions to work with employers to ensure that the right person is placed in the right job in the most efficient manner. Thus, resulting in increased workplace productivity.

Jobberman provides:

- Access to a large pool of candidates
- Excellent data on candidates to aid decision making
- An experienced team of professionals serving you
- Access to both local & international talent

Our Numbers

Jobberman.com

Seeker Profiles +2,300,000	
Registered Employers +60,000	
Applications per Job +100	
Job Applications Yearly +950,000	

Most represented age group

Millennials: 60% of our database is between 26-40 years

Fastest growing segment

Fresh graduates between 19-26 years account for ~50% of our joiners each year

Qualifications

60% of candidates in our database have a Bachelor's Degree & above

About Young Nigeria Works

Overview

In January 2020, Jobberman Nigeria partnered with the Mastercard Foundation with the goal **to tackle youth unemployment in Nigeria.**

The partnership, titled **'Young Nigeria Works (YNW)',** aims to **train 5 million young people in Nigeria (with 70% focus on women) and enable 3 million of them to secure dignified and fulfilling work by 2025.**

As a subset of the broader 'Young Africa Works' (YAW) strategy of the Mastercard Foundation, YNW will be implemented in **Lagos, Kano, and Kaduna.**

To achieve maximum impact, the project execution will span across activities including: **soft skills training, youth engagement events, skills gap surveys, and making technical adjustments to our platform to suit partner needs.** A core part of the project is **placing jobseekers into various roles across the Agriculture, Creatives and Digital Sectors.**

The project is being implemented in three states including:

Kaduna

Kano

Lagos

The project is focused on the following target sectors:

Agriculture

Creatives

Digital

Introduction
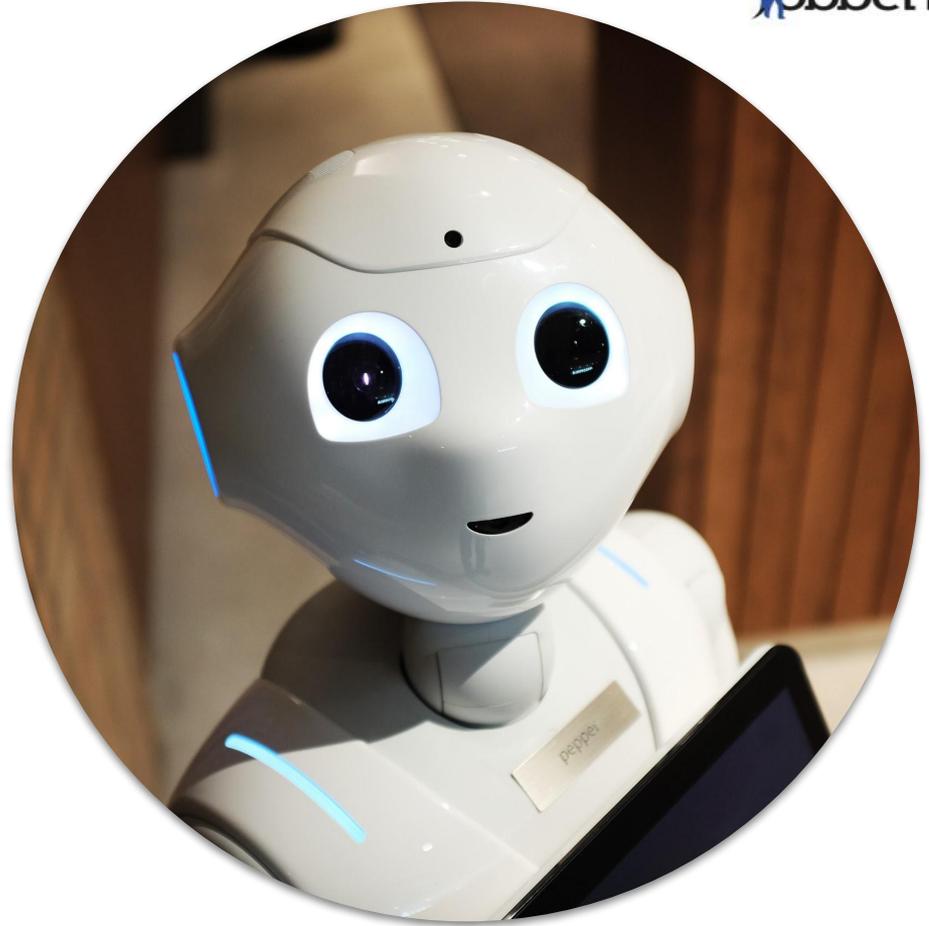
Nigeria's booming youth population and the increasing contribution of the digital sector to GDP shows promising potential for Nigeria's economic outlook.

With the ICT sector leading in terms of its contribution to national GDP (17.83%), Nigeria's digital economy presents a unique opportunity for employment and job creation. However, this will require improvements in digital skills and literacy amongst young people.

Although young people are described as digital natives, there is a digital literacy gap which excludes young people from harnessing the opportunities that the digital economy presents.

According to the World Bank, only about 2 - 4% of secondary and tertiary level graduates are employable (have the knowledge, skill and ability to get a job and succeed on the job), while 18 - 20% of tertiary graduates will require training interventions for about 1 - 4 years to become employable. While this raises questions about how young people are being socialised into the workplace, we know very little about the specific 'Digital skills in demand' and the the extent to which young people in Nigeria posses these digital skills.

Figure 1 - ICT contribution to real GDP (Q2 2015 - Q2 2020)
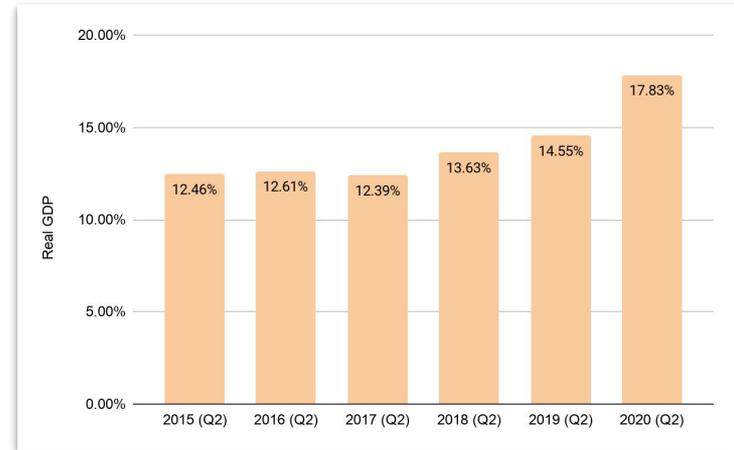
According to the National Bureau of Statistics (NBS), the ICT contribution to GDP increased from 12.46% in Q2, 2015 to 17.83% in Q2 2020 (Figure 1 shows ICT contribution to GDP from Q2 2015 - Q2 2020), this is greater than the contribution to GDP from the oil sector (8.9%) in the same quarter. Telecommunications and Information Services are two sub-sectors that have continued to contribute to the existing growth of the ICT sector year on year.

This study therefore seeks to contribute to an understanding of the skills gap that exist within Nigeria's Digital sector in Nigeria.

This study presents emerging perspectives on the nature of the digital sector, the skills gap that exists within the digital sector in Nigeria with a focus on Lagos, Kano and Kaduna, the factors that shape the current situation and teases out relevant recommendations for policy and programming.

This report is the first part of a broader study that attempts to provide an understanding of labour market realities in three focus sectors (Digital, Creatives and Agriculture) and three states (Lagos, Kano and Kaduna).

Specifically, the study attempts to provide answers to the following questions:

What is the nature and character of the digital sector within the context employment and job creation?

What key skills (technical and soft) do employers require in the digital sector?

What skills do jobseekers possess based on schooling and workplace exposure? How do they perceive the skills they possess and those they lack?

What gaps exist between jobseekers' skills and employers' skills requirements?

Nigeria's Digital Economy - Emerging Trends and Drivers of Growth

Rapid digital transformation is reshaping the global economy and Nigeria is said to be in a vantage position to reap the benefits of a fast-growing digital economy. Yet there are questions about the country's preparedness to take advantage of the prospects and the extent to which young people can be a part of it.

Estimates suggests the digital sector could add $88 billion and 3 million jobs to the economy by 2027. Already, the potential is apparent as Nigeria is said to be Africa's biggest digital market and the foremost destination for investment on the continent - with venture capital investments reaching an all time high of over $660 million in 2019.

Although, 2020 has seen these investments dropping due to the pandemic, healthtech startups in Nigeria received some of the largest rounds of funding in the second quarter of 2020. According to a study by Briter Bridges these deals had startups such as 54gene and Helium health receiving $15 million and $10 million respectively.

There is an increasing sense that investors are willing to make big bets in Nigeria and across Africa. With news that Stripe acquired Paystack for a whooping $200 million speaks to the growing influence and prospect that Nigeria's digital sector possesses.

The increasing latent potential of Nigeria's digital sector and its attractiveness to investors is, in part, underpinned by emerging trends including:

Urbanisation and increasing youth population.
Increasing mobile penetration
COVID-19
Fourth Industrial Revolution
Improved Business Environment

Urbanisation and increasing youth population.

Nigeria's population is on the brink of an urban revolution.
With a population estimated at 200 million, the country hosts about half of West Africa and has one of the world's largest youth population – estimated at over 100 million (between ages 15 – 35 years).

This population growth is occurring side by side with rising urbanization and this is said to be advancing growth consumer expenditure. Many young people migrating from rural to urban areas are being brought in close proximity with new technology, improved opportunities for employment as well as expanded prospect for entrepreneurship or self-employment - especially within informal spaces - and experts say that spending patterns on consumer goods and services in African cities is 79% higher than the national average.

This demographic shift is meaningfully advancing consumption patterns as young people are becoming more and more shaped by globalization and growing in affluence. Analysts posit that this will very likely boost the country's competitiveness in both skilled and unskilled labour, which will further increase local consumption.

Current Population Estimate - 2020

Nigeria	West Africa	Africa
206 Million	401 Million	1.3 Billion
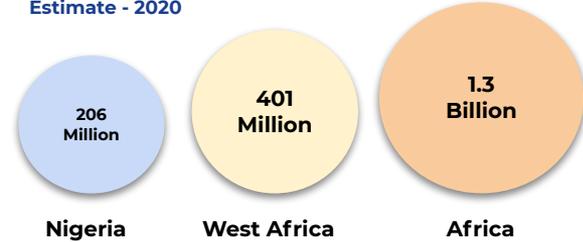
Current Youth Population Estimate - 2020

Nigeria	West Africa	Africa
>100 Million	>200 Million	~800 Million
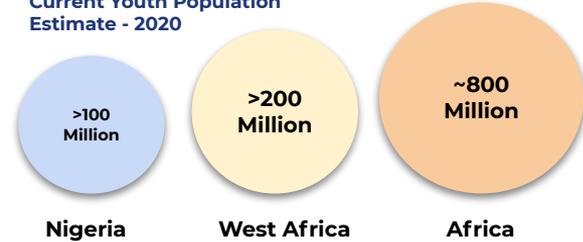
Projected Estimate - 2030

Nigeria	West Africa	Africa
260 Million	516 Million	1.7 Billion
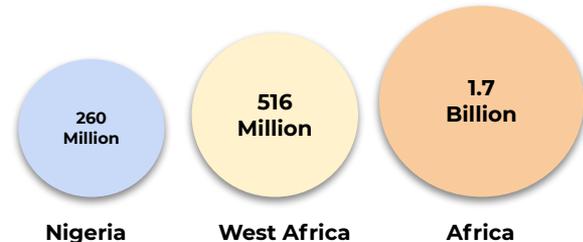
Calculated based on data from worldometer

Increasing mobile penetration

According to World Bank, Nigeria has the largest mobile market (phone users) in Africa and this is supported by growing broadband infrastructure and internet connectivity. In Nigeria, the number of internet subscribers has grown from 200,000 in year 2000 to 126 million in 2020 with a 61% penetration (See Internet World Stats). A similar analysis by GSMA, suggests that Nigeria has over 97 million unique mobile subscribers with a 49% penetration which is expected to rise to 55% by 2025.

From a continental perspective, increasing internet penetration by 10% can potentially increase GDP per capita by 2.5%, while increasing internet access to 75% can create 44 million on the continent (See e-Conomy Africa 2020 Report)**.** Essentially, the mobile technology sector presents an array of opportunities for business and economic growth. Although affordability remains a barrier.

This growth is expected to ride on rising smartphone penetration and expanding payment services as well as the e-commerce market. This fact is corroborated by the National Investment Promotion Commission which projected that Fintech revenues will grow to $543 million by 2022 compared to $153 million in 2017.

Internet Users

200k	126 Million
2000	2020

97 Million Unique Mobile Subscribers

27 Million Facebook Subscribers
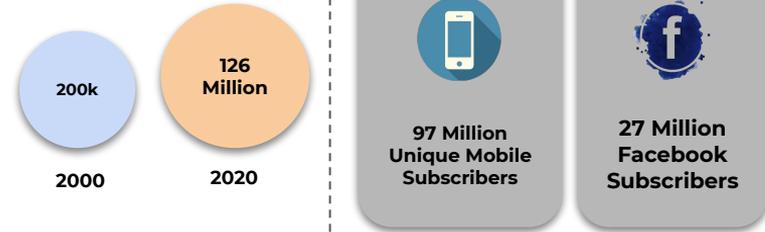
According to the Inclusive Internet index 2020, Nigeria ranks 5th on the continent and 66th amongst 100 countries globally. The index seeks to measure the extent to which the internet is accessible, affordable, relevant and readiness for usage in a way that enables positive social and economic outcomes for individual and groups.

Availability	**81/100**
Affordability	**25/100**
Relevance	**64/100**
Readiness	**74/100**

COVID-19

Despite the negative prospects that COVID-19 presents, Nigeria's digital economy appears to be showing significant promise. Recent projections by McKinsey suggests a likely economic contraction for Nigeria with an estimated reduction in GDP by a whooping U$D20 billion in the least worst-case scenario, or a U$D40 billion reduction in GDP where the virus is not contained. However, recent data shows that Nigeria's the ICT contribution to GDP increased from 12.46% in Q2, 2015 to 17.83% in Q2 2020.

This tendency is largely occasioned by the increasing need for businesses to sustain remote working and skeletal operations. Experts anticipate that this trend will be favorable to sub-sectors such as telecoms, e-Commerce, fintech, and healthtech. The increasing demand for these services will translate into significant revenue.

Telecoms service providers are perhaps the biggest winners following the impact of the pandemic. As expected the increasing demand for data and voice related services increased in the wake of lockdown restrictions as consumers have to rely on these services for remote working, learning activities, religious activities and social gatherings and also maintain social ties. MTN Nigeria, for instance, recently released its unaudited financial result for the third quarter of 2020 and recording a 13.9% increase in total revenues totaling N975 billion up from N856 billion in the same period of the previous year. With mobile subscribers increasing by 3.9 million to 75 million and active data users increasing by 1.7 million to 30.7million

COVID-19 & Fintech

With increasing emphasis on social distancing and the aversion towards being in crowded places, there will be a corresponding increase in the need for cashless transactions and e-payment solutions. This could further accelerate the digitization of the financial industry as well as innovate around approaches and solutions that can reduce cash handling.

COVID-19 & e-Commerce

Full and partial lockdown as well as social distancing may likely influence e-commerce behaviors post-pandemic. As consumers become less accustomed to engaging in large payment transactions for products and services, online shopping may likely become the norm and this will prove lucrative for the e-commerce sector. Already, e-mobility and food delivery startups have begun expanding their services beyond rides to include groceries and essential products even as apps are proving even more useful.

COVID-19 & Healthtech

Due to the pandemic, both patients and doctors are getting accustomed to telemedicine as healthtech solutions continue to gain ground. Notably, in the midst of the pandemic, Lifebank- a healthcare logistics company – launched a drive-through COVID-19 testing centre. With investor funding, Lifebank was able to provide these services for free and has also included its oxygen delivery services to support treatment efforts.

Fourth industrial Revolution (4IR)

Technological advancements and its application in business, governance, and social interactions is a key factor shaping the demand sector in Nigeria and elsewhere. Developments in computing power and big data; the increasing penetration of mobile internet, the uptake in cloud tech, and the internet of things is already having an extensive influence on businesses and their operations.

Furthermore, developments in artificial intelligence, machine learning, peer to peer platforms and manufacturing technology is making it possible to program machines routine tasks. This is also making companies and individuals access new opportunities for productivity. While new energy supplies such as renewables and hydraulic fracturing (fracking), are shaking up the global energy landscape and shifting the role of gatekeepers with profound and complicated geopolitical and environmental consequences.

According to the World Economic Forum also estimated that about 46% of work activities in Nigeria will be susceptible to automation. Some of the new job functions emerging include: process automation experts, digital marketing experts, user experience and human-machine interaction designers, logistics experts, geologists, mining engineers, artificial intelligence and machine learning specialists, big data specialists and information security analysts.

Improved Business Environment

The Nigeria government have continued to initiate reforms to improve the ease of doing business when it set up the Presidential Enabling Business Environment Council (PEBEC) in 2016 – an initiative geared towards minimizing the constraints associated with running businesses in the country. This initiative has since begun to show signs of progress as the country moved in the 2020 Ease of Doing business index . According to the Report, Nigeria ranks 131 out of 190 countries - moving up 15 places from 146th position in the 2019 Report. The improved performance of the digital sector is, in part, derived from improvements in reforms and governance.

As part other initiatives to reposition the economy to take advantage of emerging opportunities within the digital sector, the Federal ministry of Communications and Digital Economy launched the National Digital Economic Policy and Strategy (NDEPS). This has helped to forge partnerships towards advancing an inclusive digital economy.

To achieve the goal of lowering the access barrier to digital tools for the citizens, the government has set a benchmark of 95% digital literacy rates to be achieved in the next ten years (2030) through States and LGAs support. It is expected that through the policy young people will be equipped with the necessary skills to get decent job while transforming Nigeria into a leading digital economy.

Ease of doing business is an index published by the World Bank. It is an aggregate figure that includes different parameters which define the ease of doing business in a country. Description: It is computed by aggregating the distance to frontier scores of different economies.

Figure 2 - Ease of Doing Business Index (IDI)

Country	Rank/190
Nigeria	131st
Kenya	56th
Ghana	118th
South Africa	84th
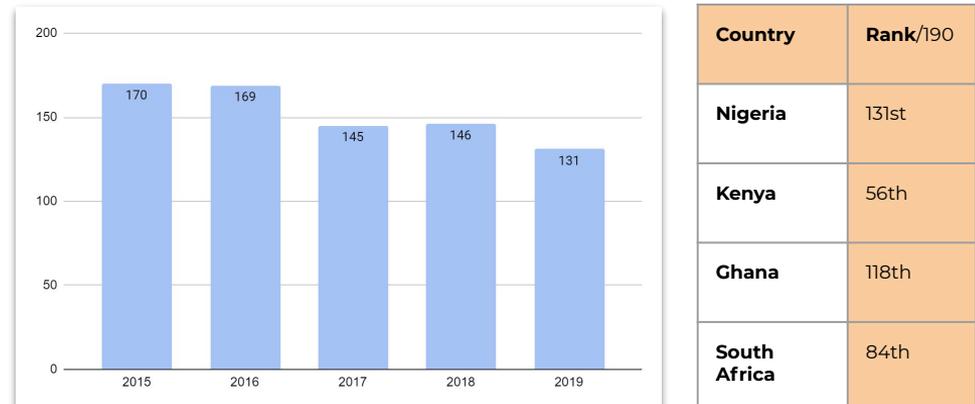
Key Issues in Nigeria's Labour Market

Despite the opportunities that the digital economy presents, young people in Nigeria may hardly benefit due to the digital and soft skills gap. Nigeria's labour market is already characterised by high unemployment and underemployment rate. According to recent data from the National Bureau of Statistics (NBS), 1 in 4 Nigerians is unemployed (27.1%), while the number is worse for young people (15 - 35 years) with 1 out of 3 being unemployed (34.9%). Similarly, the country has a combined (unemployment and underemployment) unemployment and youth unemployment rate of 55.7% and 63.1% respectively.

Nigeria's high unemployment rates is largely related to the rate at which jobs are created. According to PWC job growth was less than 2% in the last decade, much lower than labour force growth of about 4%. What this means is that, more people are entering the labour market than the number of jobs being created at any point in time. For instance, in 2018, Nigeria only created about 450,000 new jobs while over 5 million people joined the labour force. This led to an increase in the number of the unemployed by 4.9 million people in the same year. (See - Nigeria Economic Update**)**

Nigeria total labour force population of 80 million.

1 in 4 Nigerians are unemployed

1 in 3 Nigerian youth is unemployed

55.7% of Nigerian's are unemployed

63.1% of Nigerian youth (15 - 35 years) are unemployed
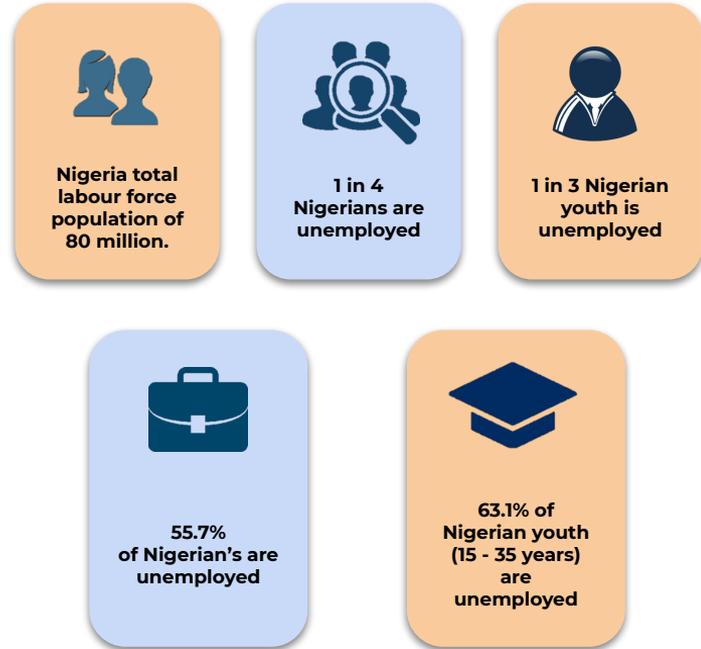
The economy's limited capacity to absorb the growing labour force is, in part, linked to gaps within the education system that prevents young people from developing skills (technical and soft skills) and gain the required confidence to be employable; the limited spaces and networking opportunities for employers to interact with job seekers; as well as other cultural and structural conditions limiting women and young people in marginalised contexts.

This gap in human capital optimisation is at the core of the inefficiency in Nigeria's labour market as Nigeria captures only 49% of its full human capital potential, compared to a continental average of 55%, ranging from 67% in Mauritius to 44% in Chad - see Figure 3.

The human capital optimisation is a measure of the productive and earning potential of the population based on their skills, education, capacity and attribute. In this regard, Nigeria's human capital potential remains latent.

Nigeria's inefficient labour market is, in part, due to;

Gaps within the education system leading to skills gap.

Limited opportunity for interaction between employers and jobseekers

Culture and policy constraints

Figure 3 - Human Capital Optimisation in Africa

Nigeria	49	
Ghana	64	
South Africa	63	
Kenya	58	
Rwanda	56	
Chad	44	
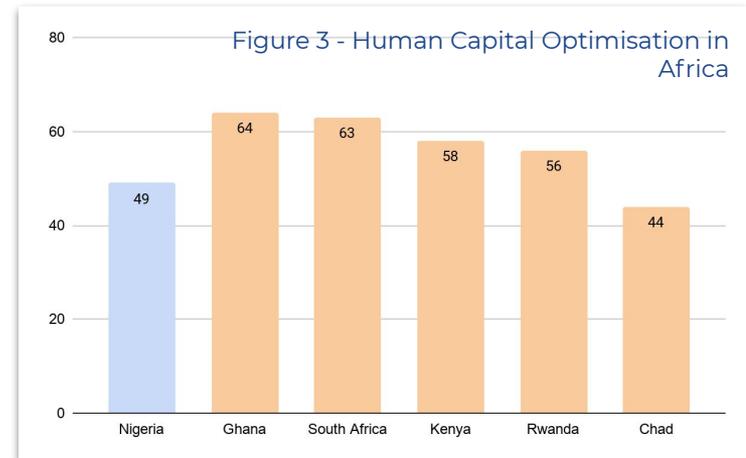
Source: The Future of Jobs and Skills in Africa Report - 2017

Furthermore, a higher number of the labour force that is inactive are women (mostly married and without education). Limited access to education and training has reduced the ability of women to be engaged in decent work and experience upward mobility. According to NBS data, 63% of women are more likely to be unemployed or underemployed than men (49%). Thus, for every 2 women in full time employment, 3 other women are either unemployed or underemployed.

Also, Kaduna and Kano are amongst the states with the highest combined unemployment rate - Kaduna 39.8% and Kano 31.6%.- while Lagos stands at 19.5%.

Given the employment opportunities that the digital sector presents, there is a mismatch between the the skills in demand within the sector and the skills that jobseekers possess. Digital skills are no longer optional in the world of work, they have become the new normal, and employers are paying increasing attention to hiring talents that possess them (from user literacy to producer technical skills).

With 46% of work activities in Nigeria susceptible to automation, digital skills will be an imperative if young people will be able to leverage emerging job opportunities within the digital sector as well as opportunities in digital entrepreneurship, freelancing, gig work and social commerce (ecommerce).

Kaduna

39.8%
Unemployment rate.

Kano

31.6%
Unemployment rate.

Lagos

19.5%
Unemployment rate.

Furthermore, the country ranks low key indicators that measure ICT adoption (Nigeria ranks 143rd out of 176 countries and 15th within the region as at 2017 (see Figure 4) and digital skills development (Nigeria ranks 122nd out of 140 countries, with a score of 40.4).

Unfortunately, much is required of Nigeria's education standards as the learning outcomes emerging at all levels have continued to suffer from poor funding and deteriorating infrastructure. According to the World Economic Forum Executive Opinion Survey, the quality of Nigeria's education system ranks amongst the lowest on the continent at 2.8 over 7, and below the world average, which stands at 3.8.

Nigeria has one of the lowest shares of government expenditure in education (7%). In addition, Nigeria stands out globally in its number of out-of-school children - 13 million - which means that 1 in 5 of the world's out of school children is in Nigeria.

The World Economic Forum's "Future of Jobs" report report predicts the loss of 75 million jobs by 2025. However, the report also anticipates the creation of 133 million jobs, thanks to the Fourth industrial revolution leaving a positive balance of 58 million jobs. However, the indicators suggest that the country is underprepared for the impending disruption to jobs and skills brought about by the Fourth Industrial Revolution.

Figure 4 - ICT Development Index (IDI)

Country	Rank/176	IDI Value
Nigeria	143rd	**2.60**
Kenya	138th	**2.91**
Ghana	116th	**4.05**
South Africa	92nd	**4.96**
China	80th	**5.60**
Brazil	66th	**6.12**
United States	16th	**8.18**
United Kingdom	5th	**8.63**

Source: ICT Development Index 2017

Beyond the emphasis on digital skills, soft skills are at the center of the future of work as employers are keen on recruiting talent that possess skills relating to critical thinking, problem solving and innovation. Roles such as Customer Service Workers, Sales and Marketing Professionals, Training and Development, People and Culture, and Organizational Development Specialists as well as Innovation Managers are expected to be on the rise.

COVID-19 has in little way accelerated the increased appreciation of the necessity and value of tech-based solutions to business operations, learning activities, religious activities as well as other social interactions. Experts in the digital sector agree that this renewed uptake of technology has the potential to create jobs, increase productivity as well as unlock the entrepreneurial potential of informal units.

Yet, certain groups from less privileged contexts may be left behind. At the same time, groups already in work will constantly need to update their technical and digital skills and where they are unable to afford this upgrade, the prospect of becoming redundant becomes a near prospect. This is because the digital space is fast paced and demanding updated technologies to implement work.

Recent studies by LinkedIn and the International Finance Corporation (IFC) suggests that the digital skills gap is hindering digital transformation and expected economic growth. These reports also indicate that there will be a short supply of skilled workers for technical jobs. Specifically for Africa, the IFC estimates that over 230 million jobs will require digital skills by 2030, requiring almost 650 million training opportunities.

While the digital skills gap is not a phenomenon peculiar to Africa, Coursera 2019 Global Skills Index, suggests that two-thirds of the global population is falling behind in critical skills, with 90% being in developing economies, including Nigeria.

For instance, software engineers and developers will constantly have to familiarise themselves with new programming languages, softwares, algorithms, design patterns and programming hacks. They will have to shift from old tools such as Cascading Style Sheets (CSS) and PHP Hypertext Preprocessor to new languages such as Python and Laravel..

Interestingly, it does not stop there. These new languages are constantly popping up with new versions and features just like mobile phones. The cost of this may be overwhelming for many programmers and software engineers, and may lead to redundancy. A case in point is the recent disengagement of over 400 junior engineers by Andela across Nigeria, Kenya and Uganda. Consequently, the accelerated uptake of technology occasioned by COVID-19 in-part bears the risk of deepening existing inequalities.

Furthermore, the pandemic exposes fundamental gaps in Nigeria's institutions, business environment and human capital which were already on the decline and highlighted in the 2019 Global Competitiveness report. Based on the reports' profiling of Nigeria, the country ranks low in its institutional capacity (128th) to provide security, property rights and transparency. In relation to infrastructure (130th), the gaps in transportation and electricity are laid bare as the country rank really low amongst other countries. (See figure 5)

Figure 5 - Nigeria's Profile: Global Competitiveness Index (GCI)

Category	Overall Score	Enabling Environment				Human Capital		Markets				Innovation Ecosystem	
Score	48	41	40	33	60	47	40	52	60	44	71	59	32
Rank/141	116th	128th	130th	118th	130th	127th	129th	97th	67th	131st	30th	79th	94th
	Overall	Institution	Infrastructure	ICT adoption	Macro-Economic stability	Health	Skills	Product market	Labour market	Financial system	Market size	Business dynamism	Innovation capacity

Source: 2019 Global Competitiveness report (see report for definition of indicators)

While the aforementioned has implications for the business environment including the digital sector, the report suggests that the country ranks low in skills (129th) as an indicator of human capital development. The assessment of the quality of the young people as well as the preparedness to leverage the prospects of the digital sector indicate institutional lapses in how young people are being socialized for the future of work. (See figure 5)

Although the relative macro-economic stability and market indicators suggest that the country is positioned to reap the dividends of the digital transformation, the country's willingness to make strategic investments in creating an enabling environment, supporting innovation with the ecosystem and investments in human capital development will be useful

Approach and Methodology
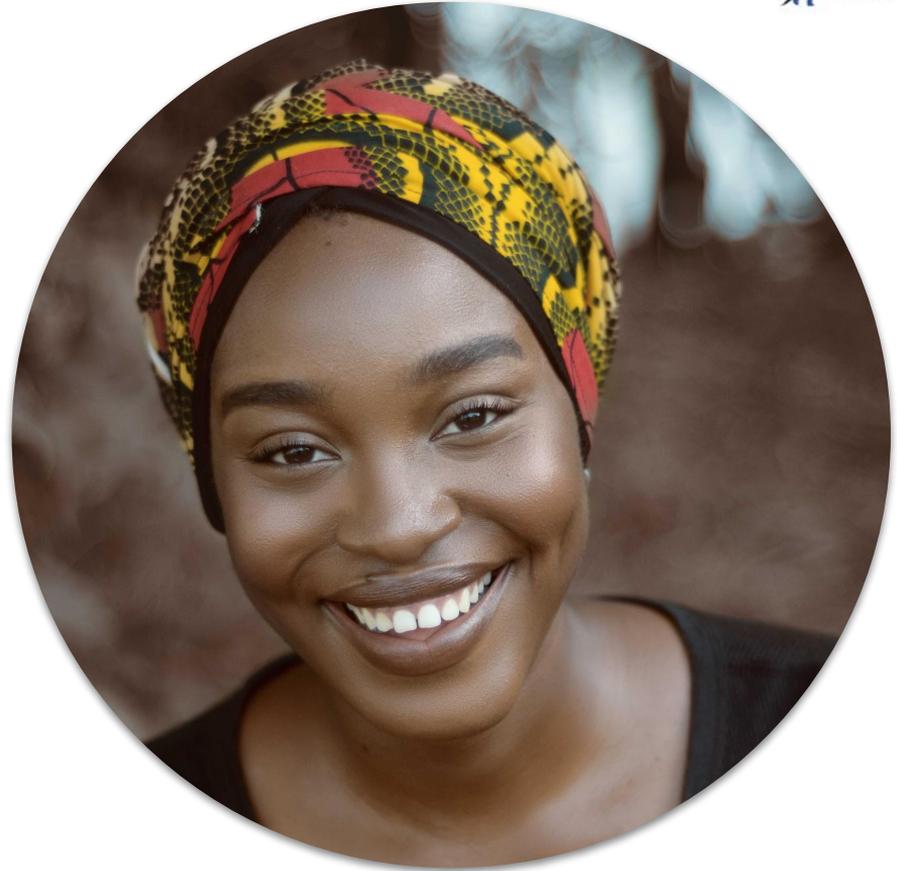
This report presents insights from our research on the Digital Skills Gap in Nigeria, with particular emphasis on our targets states - Lagos, Kano and Kaduna. It attempts to answer the following questions:

1. What is the nature and character of the digital sector?
2. What key skills (technical and soft) do employers require in the digital sector?
3. What skills do jobseekers possess based on schooling and workplace exposure? How do they perceive the skills they possess and those they lack?
4. What gaps exist between jobseekers' skills and employers' skills requirements?

The research methodology adopted provided answers to the research questions and enabled us understand the digital sector landscape in Nigeria. The methodology engaged online survey and interviews as the primary source of data collection and review of relevant literatures and policy documents as the secondary source. The use of both sources is to validate the quality of data collected and enhance the intellectual rigour of the evidence gathered.

1.

Primary Data Outcomes

1. **Online Survey:** The survey was targeted at Jobseekers and Employers in the digital industry leveraging our database, events directories and community partnerships. A total of 4,603 Jobseekers and 419 Employers took part in the online survey. The Employer population surveyed comprise Senior Managers, HR Executives, Operations Personnel, Information and Communication Technology professionals among others. While the Jobseeker population is predominantly (93.01%) made up of young people between age 18 and 35 with 48.39% female and 51.70% male representation. Lagos had the highest (33.6%) representation by state while Kaduna and Kano had 11.2% and 17,4% representation respectively.

2. **Interview:** A total of 11 interviews were conducted, the interviewed participants include HR Professionals, Learning and Development Practitioners, NGO Experts and Digital Experts. The interviewed professionals provided further context around some of the evidence gathered from the survey and shared valuable insights on the existing digital skills gap and the role of young people as well as various stakeholders in bridging it.

Supply Side

48% 52%

4,603
Total Respondents (Jobseekers)

Age Group

Age Group	
Under 18 years	<1%
18 - 24 years	37%
25 - 30 years	45%
31 - 35 years	10%
Above 36 years	7%
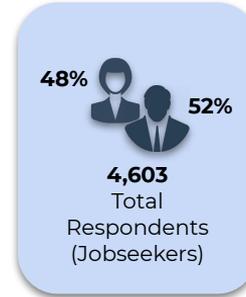
Location	
Lagos	33.6%
Kano	17.4%
Kaduna	11.2%
Others	37.8%

Demand Side

419
Total Respondents (employers)
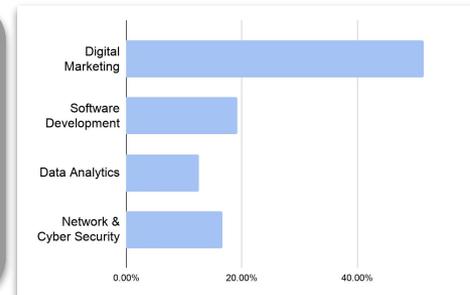
Location	
Lagos	47%
Kano	36.9%
Kaduna	16.1%

Secondary Source of Data:

To understand the emerging evidence within the literature, we engaged a number of secondary sources;

1. Review of relevant Publications: Digital Economy Diagnostic Report, Click on Kaduna, e-Conomy Africa Report etc.
2. Data Repository (National Bureau of Statistics (NBS), State Data Board)
3. Market Relevant articles: Techpoint, World Bank blog, etc.
4. Policy Documents: National Digital Economy and Strategy 2020 - 2030
5. Internal Documents: Jobberman Baseline Report and Soft Skills Training Reports

Limitations

1. Restriction of Movement: Due to the COVID-19 pandemic there was restriction of movement and lock down measures in most parts of Nigeria, as such the surveys and interviews was administered solely online. This might have excluded some potential respondents with limited internet access.
2. Survey fatigue: Attention was given to brevity while designing survey questions to avoid survey fatigue by respondents.

To overcome these limitations, interviews were conducted for context and emerging evidence from literature helped with further insights into the study.

**Skills Gap
Analysis**

Demand Side Analysis

Established within the literature is the reality of the digital literacy gap **even in the most technologically advanced countries.** Given the realities of the 4IR and a pandemic that has accelerated digitisation, advancing an understanding of what this digital skills gap means and how it can be managed is timely.

In understanding the skills gap from a demand perspective, the tools sought to understand the following:

1. Employer perception on the skills gap and the key skills in demand.
2. Understand how employers are handling the skills gap and hiring trends.
3. Understanding how the pandemic is impacting their businesses and what this means for jobs.

In this regard, we asked employers within the digital sector to rank specific skills based on the experience with their current employees. The ranking is based on a 3 scale rubric of beginner, intermediate and advanced levels. The hypothesis here is that the higher the frequency within the advanced proficiency the lower the potential of a skills gap. In reverse order, the higher the frequency at beginner level the higher the potential for a skills gap.

We also asked employers to identify key roles they deem to be in demand within their spaces to advance an appreciation of where the mismatch lies.

Furthermore, our enquiry also sought to attempt an explanation on how employers are responding to the skills gap by trying to understand their hiring trends and their expectations for job seekers in terms of how they should present their skills.

Given how COVID-19 is disrupting economic activities we also asked employers to help us understand how the pandemic has impacted their businesses, how they are responding, what this means for jobs as well as what they would prioritise in terms of support.

Supply Side Analysis

Nigeria's digital sector holds the potential to move the economy towards prosperity and create jobs for the country's increasing youth population. Young people's ability to leverage this opportunity will be largely shaped by how they are socialised for the workplace. Essentially, digital skills are an imperative if young people will compete favourably in a constantly changing global economy.

At the same time, the pandemic may have expanded what it means to be employable as young people will require both digital (technical skills) as well as soft skills to remain competitive within the labour market and also run a startup or an enterprise.

To advance our understanding of the skills gap from a supply perspective, we surveyed 4,603 jobseekers in an attempt to gain answers to two key questions;

1. What aspect of the digital sector jobseekers are interested in?
2. What skills do jobseekers possess based on schooling and workplace exposure?
3. How do they perceive the skills they possess and those they lack?

The survey required jobseekers to rate their skills across 4 digital skill competencies: digital marketing, software development, data analytics, and network and cybersecurity. Just like employers, we asked jobseekers to rank the level of their proficiency based on their level of education and exposure to work.

The ranking is based on a 3 scale rubric of beginner, intermediate and advanced levels. The hypothesis here is that the higher the frequency within the advanced proficiency, the lower the potential of a skills gap. In reverse order, the higher the frequency at beginner level the higher the potential for a skills gap.

However, in advancing our understanding of the gaps in soft skills, this report leveraged baseline data from Jobberman soft skills training. The data provides an advanced methodology based on scenario based questions which are standardised for soft skills testing.

Key Findings

Employers say that job readiness amongst young people is very low. They find it difficult to recruit digital talents with skills such as artificial Intelligence, machine learning, penetration testing, big data analytics, cloud infrastructure, UI/UX, as well as identity management and access.

COVID-19 is expanding what it means to be employable as there is a widening digital talent gap. The data shows that the pandemic is increasing the demand for skills related to data analysis, social media marketing, digital strategy, cyber security, CRM email marketing, product management, full-stack engineering and security engineering.

Employers say there is increasing competence in soft skills but every second employer surveyed say they look out for both hard and soft skills. This result is in tandem with growing evidence that employers are seeking workers that sufficiently possess both technical and soft skills and would rather not make trade-offs between the two skill types.

The pandemic has required employers to expand their operations as the demand for digital services increase. However, employers are concerned that the skills gap will have implications for business productivity and organisational culture.

Top 10 Skills Gap Areas

Artificial Intelligence

Machine Learning

Data Science

Identity management and Access

Big Data Analytics

Cloud infrastructure

UI/UX

Computer Programming

Mobile Development (iOS & Android)

Penetration Testing

Scale of demand

Demand Gap Areas	Scale of demand
Digital Strategy	46%
Cyber Security	45%
CRM and Email Marketing	33%
Security Engineering	30%
Security Architecture	29%
Data Science	10%

More employers are shifting from an emphasis on certifications to practical tests as basis for recruitment, Jobseekers on the the other hand are given to engaging their certifications and job profiles to communicate their competencies.

Although the pandemic has impacted cash flow and capacity to pay salaries, yet more than 70% of employers surveyed will not or are less likely to lay off workers.

Young people are aware of their deficiencies in digital skills and its importance for the workplace, but are not conscious of what soft skills are and its relevance for the workplace.

Young people are lacking in all the soft skills measured. Our baseline assessment administered by 27, 289 unique jobseekers show a total average score of 49%. This essentially indicates that jobseekers are generally weak with regards to the soft skills being measured.

Employers indicate that other areas where there is a soft skills gap amongst young people include lifelong learning, growth mindset, leadership/courage and intellectual humility.

Social norms as well as limited opportunity for female education limited the prospects for the increased participation of women in the sector. Some social settings for instance socialise women in ways that limit their aspirations to specific kind of jobs such as nursing and teaching.

Soft Skills	Average Score
Personal Effectiveness	55%
Work Preparedness	53%
Communication Skills	52%
Professionalism	51%
Emotional intelligence	46%
Innovativeness	46%
Problem Solving	36%

Strong (81 - 100)

Average (66 - 80)

Fair (50 - 65)

Weak (0 - 49)
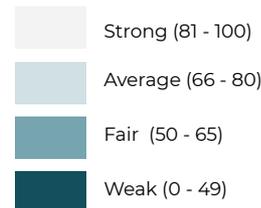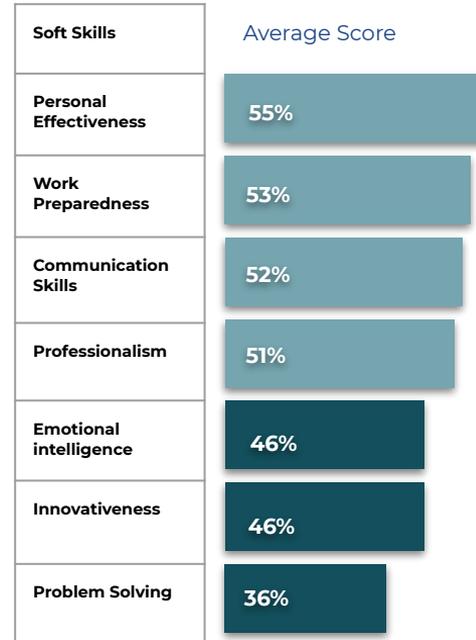
Employers indicate that other areas where there is a soft skills gap include;

Lifelong Learning

Growth Mindset

Leadership/Courage

Intellectual Humility

Digital Marketing - Demand

Digital marketing is an aspect of mainstream marketing which relies on the internet, online based digital technologies and other digital media platforms to promote products and services. Basically, digital marketing refers to online marketing efforts such as email marketing, pay-per-click advertising, social media marketing and blogging which help to connect companies and products to prospective clients.

Legend: ■ NA ■ Beginner ■ Intermediate ■ Advanced

	NA	Beginner	Intermediate	Advanced
Sales Skills	10.71	23.98	32.14	33.16
Marketing Campaign	6.09	23.86	38.07	31.98
Search Engine Optimization	9.18	21.94	35.20	33.67
Social Media Management	4.55		38.89	42.93
Content Development	4.08		38.78	43.88
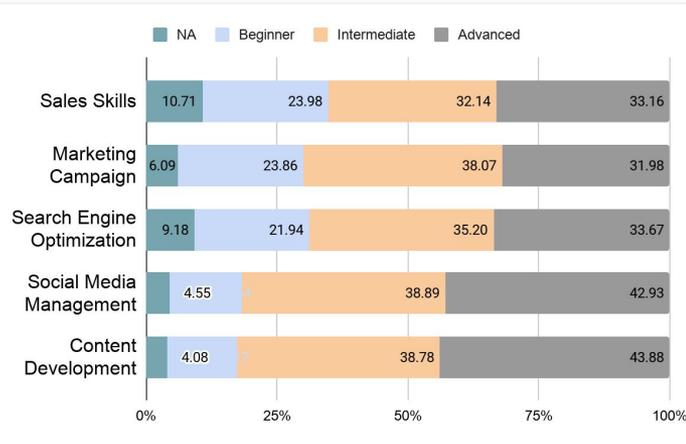
Digital marketing skill proficiency level - n=196

Within the digital marketing sub-sector perceptions emerging from employers suggests that there is a reasonable amount of competency around social media management (42.9%) and content development (43.8%) which from their judgement has proficiency ratings above 40% at advanced levels

Although there is a fair amount of competency in sales skills, marketing campaign and search engine optimisation, there is a larger portion beginners within this group when compared to social media management and content development.

Furthermore, the data suggests that there is a growing demand for job roles in social media marketing, digital strategy as well as CRM and email marketing. This is perhaps due to the recent pandemic.

Key Roles	Scale of demand
Social Media Marketing	46%
Digital Strategy	46%
CRM and Email Marketing	33%
Community Management	27%
E-Commerce Management	25%
Affiliate Management	22%
Analytics Management	16%
SEO Management	14%

Digital Marketing - Supply

Based on data from the supply side, there is higher potential of a skills gap across all 5 skills identified within the digital sector cluster as most jobseekers perceive their proficiency to be within the beginner scale. The gap is more pronounced in marketing campaign, search engine optimisation and content development skills which have over 50% of jobseekers rating their proficiency within the beginner range.

Putting this side by side with employer ratings confirm in clear terms that there is a skills gap in marketing campaign and search engine optimisation and sales skills. Similarly, the data shows consistency between the market demand for social media marketing roles and job seeker interests.

However, there is a likelihood of a mismatch in the roles of digital strategy as well as CRM and email marketing. These two roles are considered in demand by employers, but jobseekers appear to show very little interest in these roles with about 10% signifying interest in CRM and email marketing while only 6% show interest in digital strategy.

Skills Gap

- Sales Skills
- Marketing Campaign Execution
- Search engine optimisation

Demand Gap

- CRM and email marketing
- Digital strategy

Digital marketing skill proficiency level - n=4603

Skill	Beginner	Intermediate	Advanced
Sales Skills	44.71%	44.67%	10.62%
Marketing Campaign	55.51%	36.36%	8.13%
Search Engine Optimization	53.28%	36.14%	10.58%
Social Media Management	39.18%	43.90%	16.92%
Content Development	52.76%	36.29%	10.95%
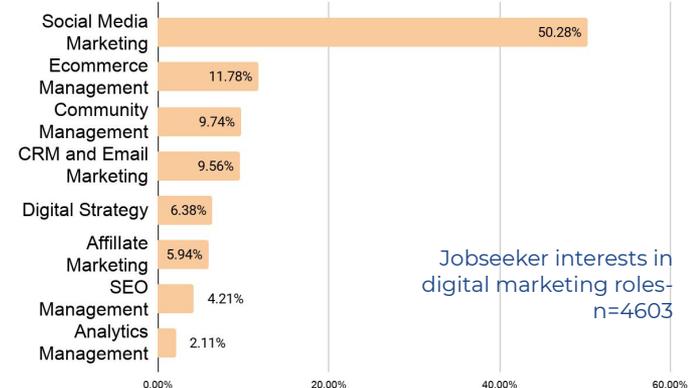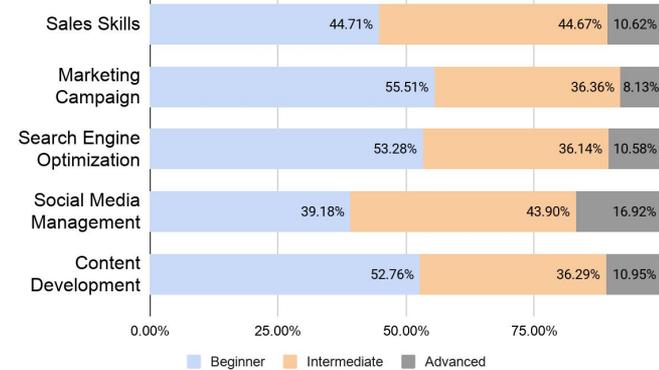
Jobseeker interests in digital marketing roles- n=4603

Role	%
Social Media Marketing	50.28%
Ecommerce Management	11.78%
Community Management	9.74%
CRM and Email Marketing	9.56%
Digital Strategy	6.38%
Affillate Marketing	5.94%
SEO Management	4.21%
Analytics Management	2.11%

Software Development- Demand

Software development is the process of building computer programs. It refers to a set of activities dedicated to the process of creating, designing, deploying and supporting software. It involves conceiving, specifying, designing, programming, documenting, testing, and bug fixing while creating and maintaining applications, frameworks, or other software components.

For software development, the data from employers suggest that there is a reasonable amount of competency in computer programming (46%), web design (47%) and design thinking (50%) as proficiency ratings are above 40% at advanced levels

In contrast, the data shows a fair amount of competency in cloud infrastructure, UI/UX, mobile development and machine learning, which have beginners ratings above 20%. Importantly also computer programming is rated to have a large number of beginners although it is also ranked to have a reasonable amount of competency.

The data further suggests that there is a growing demand for job roles in product management, full-stack engineering and security engineering. Again, the pandemic may be responsible for this pattern as there seem to have been a lot of front and back end engineers in the labour market.

Key Roles	Scale of demand
Product Management	33%
Full-Stack Engineering	33%
Security Engineering	30%
DevOps Engineering	28%
Back-End Engineering	17%
Front-End Engineering	14%
OA Engineering	12%

Software Development skill proficiency level - n=72

Legend: NA, Beginner, Intermediate, Advanced

	NA	Beginner	Intermediate	Advanced
Computer Programming	7.89	25.00	21.05	46.05
Cloud Infrastructure	9.33	24.00	32.00	34.67
UI/UX	9.86	26.76	33.80	29.58
Web Design	2.70	18.92	31.08	47.30
Mobile Development (iOS & Android)	15.49	22.54	29.58	32.39
Machine Learning	14.29	28.57	22.86	34.29
Design Thinking	7.04	11.27	30.99	50.70

Software Development - Supply

Under the software development cluster, the data suggests an overwhelming potential of a skills gap across all 6 skills identified. On the average about 73% of jobseekers rate their proficiency as beginners across all the skills measured. Although there is fair size at intermediate levels across the computer programming, web design and design thinking skills, only a 4% average of jobseekers rate their proficiency within the advanced scale.

Juxtaposing this with employer ratings confirm in clear terms that there is indeed a skills gap across all the skills identified in software development. Similarly, the data shows consistency between the market demand for social media marketing roles and job seeker interests.

Interesting, there is a appears to be a match between employer demand and jobseeker interest in the roles of product management and full-stack engineering. However, there is a likelihood of a demand gap in security engineering as only about 10% of respondents identified interest in the role.
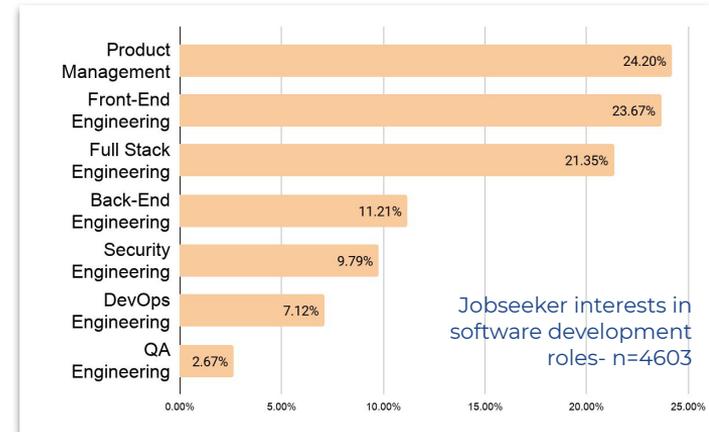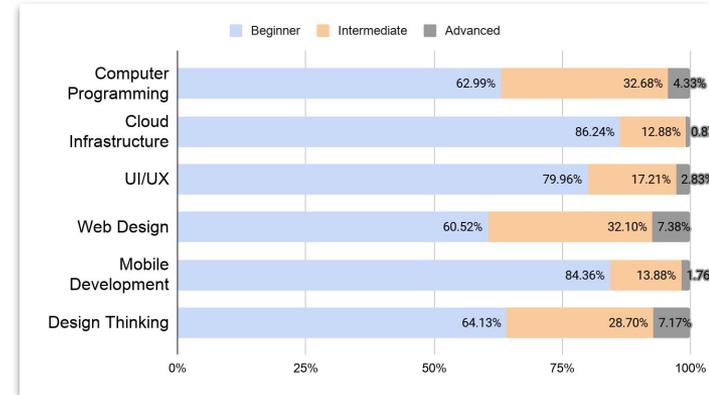
Skills Gap	Demand Gap
• Computer programming • Cloud infrastructure • UI/UX • Web design • Mobile development • Design thinking	• Security engineering

Beginner / Intermediate / Advanced

	Beginner	Intermediate	Advanced
Computer Programming	62.99%	32.68%	4.33%
Cloud Infrastructure	86.24%	12.88%	0.8%
UI/UX	79.96%	17.21%	2.83%
Web Design	60.52%	32.10%	7.38%
Mobile Development	84.36%	13.88%	1.76%
Design Thinking	64.13%	28.70%	7.17%

Role	Interest
Product Management	24.20%
Front-End Engineering	23.67%
Full Stack Engineering	21.35%
Back-End Engineering	11.21%
Security Engineering	9.79%
DevOps Engineering	7.12%
QA Engineering	2.67%

Jobseeker interests in software development roles- n=4603

Data Analysis - Demand

Data analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, informing conclusions and supporting decision-making. Data analysis tools make it easier for users to process and manipulate data, analyze the relationships and correlations between data sets, and it also helps to identify patterns and trends for interpretation.
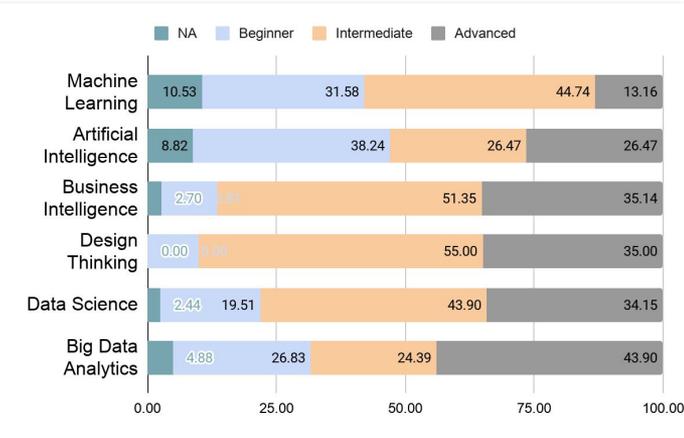
Data analysis skill proficiency level - n=38

The skills gap within the data analysis cluster is apparent especially within the realms of Machine learning and AI which employers rank to have a lot of beginners.

While big data analytics appear to have been ranked to have a reasonable amount of competency with a ranking of almost 44% in advanced stage, business intelligence, design thinking and data science skills have more rankings within the intermediate spectrum.

Interestingly, the increasing demand and relevance for data analysis is unmistakable from the data available. In the midst of the pandemic there is an increasing appreciation in understanding not just how customers are shifting but also how society in general is changing. Religious organisations, researchers as well as political actors for instance have continued to show growing interest in how people, their perceptions and perspectives are shifting.

Key Roles	Scale of demand
Data Analysis	63%
Data Analytics	22%
Data Science	10%
Machine Learning Engineering	7%
Data Engineering	5%
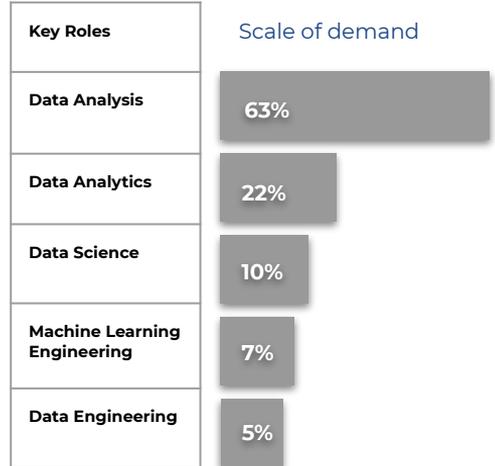
Digital Analysis - Supply

Similar to the trend in the software development cluster, responses for digital suggests also indicates an overwhelming potential of a skills gap across all 6 skills identified. On the average about 70% of jobseekers rate their proficiency as beginners across all the skills measured. Although there is fair size at intermediate levels across the business intelligence and design thinking skills, only a 5% average of jobseekers rate their proficiency within the advanced scale.

When comparing jobseekers ratings with that of the employers, the skills gap becomes more visible. Although, employers ratings show reasonable competence available for big data analytics.

Similarly, the data shows consistency between the market demand for data analysis and data analytics roles and job seeker interests. The data suggest very minimal likelihood of a mismatch in the other roles identified, although there is limited interests in machine learning engineering and data engineering.
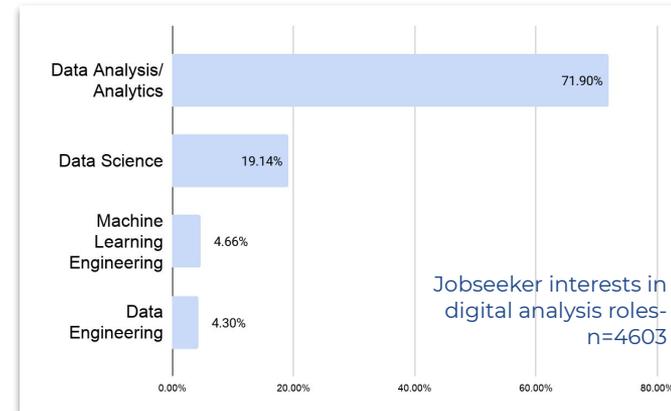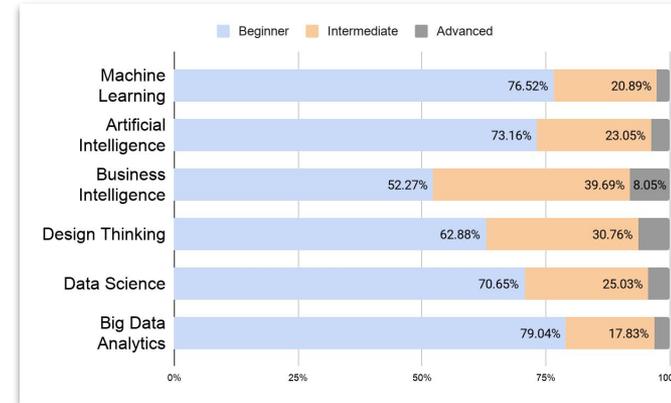
Skills Gap	Demand Gap
• Machine learning • Artificial intelligence • Business intelligence • Design thinking • Data science • Big data analytics.	• Data Science

Jobseeker interests in digital analysis roles- n=4603

Network and Cybersecurity - Demand

Cybersecurity is the safeguarding of internet-connected systems computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks or cyber-threats. The purpose for applying cybersecurity in organizations processes is to enable an effective security bearing for devices and the information on these devices from invaders.

Within the network and cybersecurity cluster there appears to be growing competency as most of the skills are ranked within the intermediate range. However, the data suggests that there is an apparent skills gap in identity management and access as well as penetration testing.

Nevertheless, the data shows that there is a reasonable amount of competency in server management and network processing.

More than before, consumers are anxious about a range of issues related to use of the internet as they are becoming mindful of concerns related to data security and online privacy. It is therefore not far fetched that cyber security as a role is in demand.

Key Roles	Scale of demand
Cyber Security	45%
Security Architecture	29%
IT Security Engineering	16%
Forensic Computer Analysis	14%
Network Engineering	7%
Security Systems Administration	3%
Information Security Analysis	1%
Penetration Testing	1%

Skill proficiency chart

Legend: NA, Beginner, Intermediate, Advanced

Skill	NA	Beginner	Intermediate	Advanced
Identity Management &	10.00	36.67	41.67	11.67
Penetration Testing	17.24	20.69	55.17	6.90
Cloud Security	8.20	18.03	50.82	22.95
Computer Programming	1.64		62.30	26.23
Disaster Recovery	8.77	15.79	42.11	33.33
Server Management	6.90	6.90	44.83	41.38
Network Processing	1.64		50.82	39.34
Work Station Installation	13.11	13.11	42.62	31.15

Digital marketing skill proficiency level - n=196

Network and Cybersecurity - Supply

Under the network and cybersecurity cluster, the data again suggests an even more significant potential of a skills gap across all 8 skills being measured. On the average about 77% of jobseekers rate their proficiency as beginners across all the skills identified. Unlike the other clusters, the frequency of rating within the intermediate scale is not necessarily significant with an average rating that is less than 20%. Also, only a 5% average of jobseekers rate their proficiency within the advanced scale.

When placing the jobseeker rating with that of employers the contrasting effect indicates a significant skills gap across all the skills identified.

With regards to roles in demand, the data indicates an opposing trend with jobseeker interests. However, the data shows consistency between the market demand for social media marketing roles and job seeker interests. The data shows little interest with roles such as cyber security and security architecture which are in demand, but shows high interest in roles such as information security and penetration testing which are less in demand.
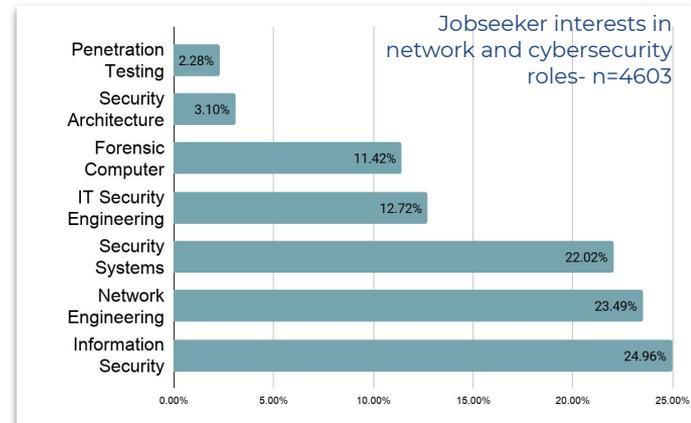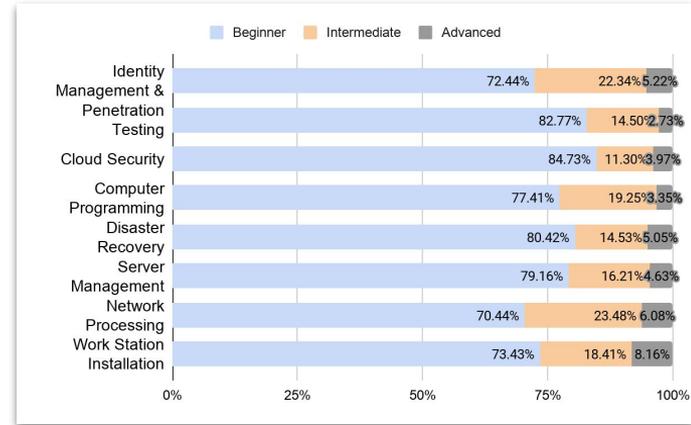
| Skills Gap |
| --- |
| Identity management and access Penetration testing Cloud security Disaster recovery Server management Network processing Workstation installation |

Demand Gap
- Cyber security   - Security architecture

Jobseeker interests in network and cybersecurity roles- n=4603

Soft Skills

Jobberman

soft skills are defined as *the mix of skills, attitudes, behaviours, personal qualities and mindsets that individuals use to be successful across different situations in work and life.*

Employers are more than ever seeking job seekers that are adaptable, collaborative, can communicate effectively with multiple stakeholders and can lead themselves. Interestingly, employers ratings of soft skills show strong competencies across the specific soft skills measured.

However, every second employer surveyed say they look out for both hard and soft skills. This result is in tandem with growing evidence that employers are seeking workers that sufficiently possess both technical and soft skills and would rather not make trade-offs between the two skill types.

Employers say they are willing to provide a learning environment for employees to learn on the job, as long as they have the minimum skill and knowledge level required. The data suggests that employers are deliberate about ensuring that learning is happening monthly, quarterly, bi-annually and annually and not waiting till the need arises or before a project begins

Soft skill proficiency level - n=351

Legend: NA, Beginner, Intermediate, Advanced

	NA/Beginner	Intermediate	Advanced
Adaptability	5.44 / 18.34	37.82	38.40
Communication	1.14	39.43	44.29
Teamwork	2.57	37.43	45.14
Time Management	0.86	38.00	50.57
Leadership	1.68	33.05	52.94

On an average, how often do you train (upskill) your staff?

- Monthly — 31.5%
- Quarterly — 27.3%
- Bi-Annually — 17.5%
- Annually — 22.8%
- When needed
- Before a project starts
- On the job

- Almost entirely hard skills — 9.9%
- Mostly hard skills — 18.4%
- Equal parts hard skills and soft skills — 51.0%
- Mostly soft skills — 11.9%
- Almost entirely soft skills — 8.8%
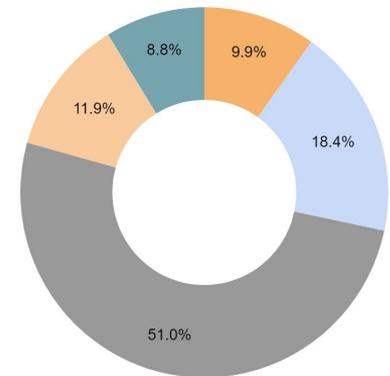
What is the split of the skills seen at your organization?

Soft Skills

In order to understand, this report leveraged Jobberman soft skills baseline data to get a sense of the soft skills gap amongst job seekers. The baseline data adopts a rubric/scoring methodology that combines both quantitative and qualitative approaches along seven domains.

The domains measured include personal effectiveness, communication skills, professionalism, Innovativeness, work preparedness, problem solving and emotional intelligence. The framework assigns scores to each domain on a rubric scale of 1 – 4 which provides a basis for description and measurement for pre and post assessment.

Between may 2020 and November 2020, 27, 289 unique jobseekers took the baseline assessment and after computing the scores the total average indicates a score of 49%. This essentially indicates that jobseekers are generally weak with regards to the soft skills being measured.

While this data reinforces dominant notions about young people's employability. Interviews with employers indicate that other areas where there is a soft skills gap include lifelong learning, growth mindset, leadership/courage and intellectual humility.

Young people are aware of their deficiencies in digital skills and its importance for the workplace, but are not conscious of what soft skills are and its relevance for the workplace.

Soft Skills	Average Score
Personal Effectiveness	55%
Work Preparedness	53%
Communication Skills	52%
Professionalism	51%
Emotional intelligence	46%
Innovativeness	46%
Problem Solving	36%

Strong (81 - 100)
Average (66 - 80)
Fair (50 - 65)
Weak (0 - 49)
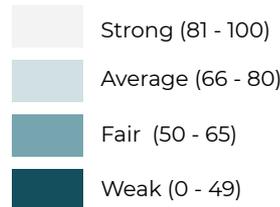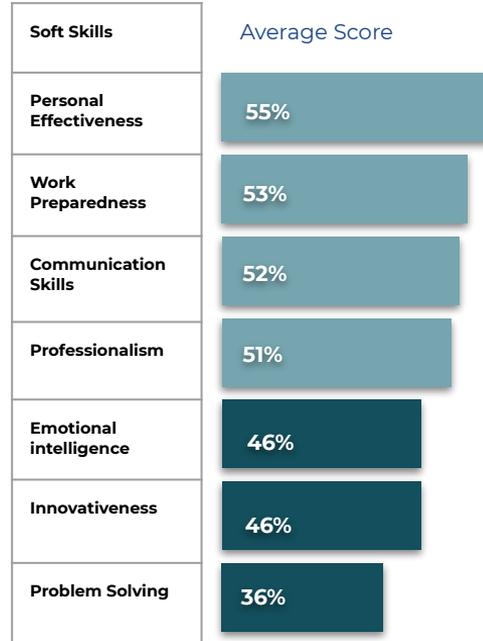
Employers indicate that other areas where there is a soft skills gap include;

Lifelong Learning

Growth Mindset

Leadership/Courage

Intellectual Humility

Hiring Trends
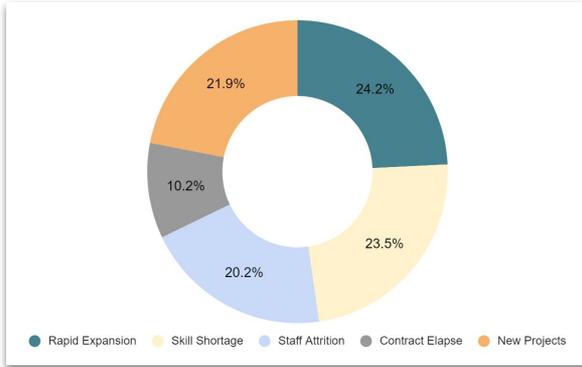
Reasons for hiring
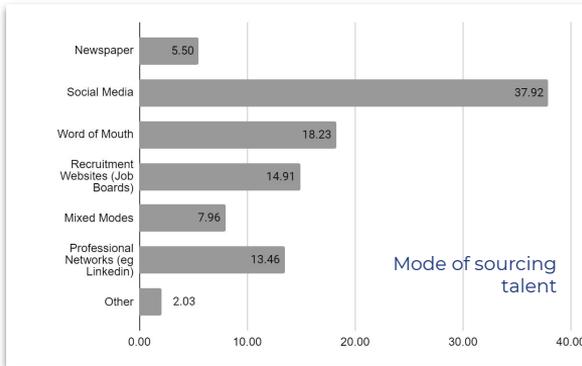
Legend: Rapid Expansion, Skill Shortage, Staff Attrition, Contract Elapse, New Projects

- Rapid Expansion: 24.2%
- Skill Shortage: 23.5%
- Staff Attrition: 20.2%
- Contract Elapse: 10.2%
- New Projects: 21.9%

Employers say that job readiness amongst young people is very low. They find it difficult to recruit digital talents with skills such as artificial Intelligence, machine learning, penetration testing, cloud infrastructure, UI/UX, as well as identity management and access. Employers are concerned that the skills gap will have implications for business productivity and organisational culture.

Due to the pandemic many digital businesses are experiencing expansion in their business operations. This presents one of the key reasons why employers find themselves in the market seeking talent. However, the skills shortage is the second major reason they are seeking to recruit.

Interestingly, social media (37%) appears to be the leading means through which employers source talent. While this could be attributed to the pandemic, referrals (18%), recruitment websites (15%) and professional networks (13%) remain prominent options.

The minimum educational requirement to work in the sector according to majority of employers is tertiary education.
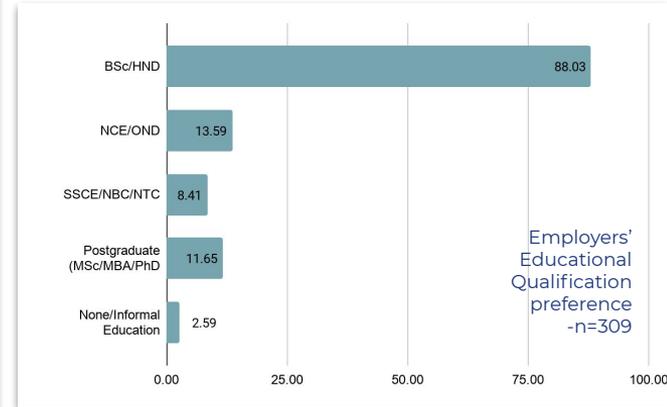
Employers' Educational Qualification preference -n=309

- BSc/HND: 88.03
- NCE/OND: 13.59
- SSCE/NBC/NTC: 8.41
- Postgraduate (MSc/MBA/PhD): 11.65
- None/Informal Education: 2.59

Mode of sourcing talent

- Newspaper: 5.50
- Social Media: 37.92
- Word of Mouth: 18.23
- Recruitment Websites (Job Boards): 14.91
- Mixed Modes: 7.96
- Professional Networks (eg Linkedin): 13.46
- Other: 2.03
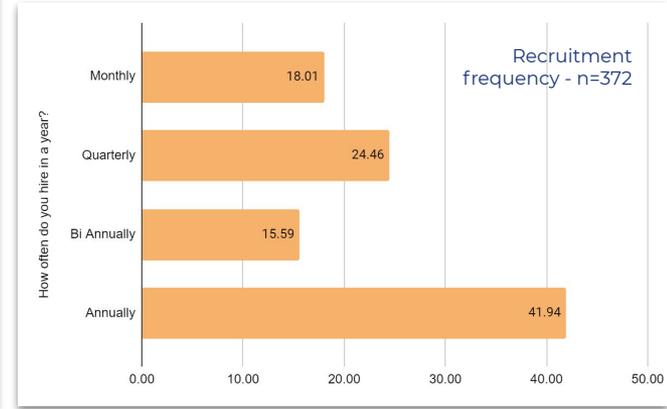
Recruitment frequency - n=372

How often do you hire in a year?

- Monthly: 18.01
- Quarterly: 24.46
- Bi Annually: 15.59
- Annually: 41.94

Training and Certification

More than 37% of employers prefer to hire candidates based on practical tests while 22% give preference to updated CV. According to surveyed employers, CV presents an opportunity for recruiters to filter applications while presenting an opportunity for jobseekers to communicate the value that they have to offer. However, the eventual decision on who to hire is based on practical test for most. This is designed to confirm that applicants have the competency they claim to have.

Jobseekers on the the other hand are given to engaging their certifications and job profiles to communicate their competencies. However, 86% of employers also say that jobseekers with certifications from leading organisations (e.g. Andela) stand a higher chance of being hired.

This further highlights the need for young people to seek out training opportunities that will help them acquire the skills needed in the workplace. Especially, as employers expect jobseekers to have the requisite skill needed to perform the job function that they are applying for.

Furthermore, our findings reveal that majority (81%) of employers will hire candidates who have received training based on a particular competency.

How employers expect jobseekers to communicate their skills vs how jobseekers communicate their skills

■ Employer preference ■ How Jobseekers commnicate their competence

	Employer preference	How Jobseekers
Practical Test	37.47	20.71
Updated CV	22.84	22.26
Professional Certification	18.85	31.53
Job Portfolio	20.84	25.50
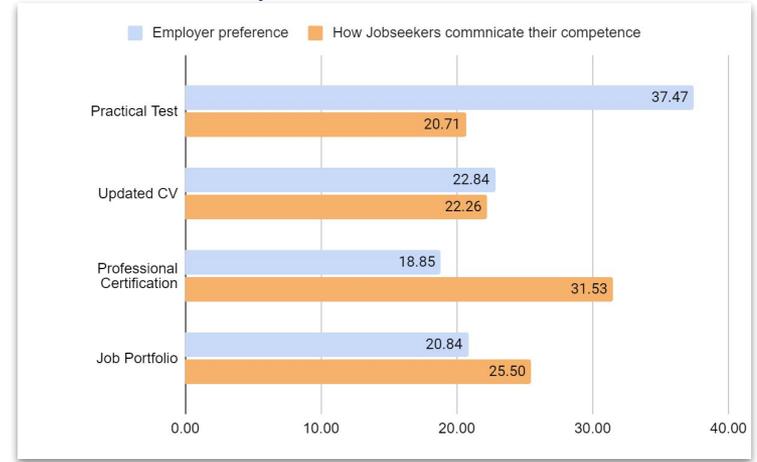
Will training youth with competence based skills encourage you to hire them?

12.8%
87.2%

■ Yes ■ No
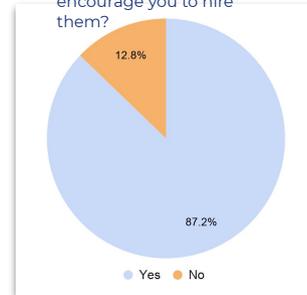
Will awarding youth trainees certifications from leading institutes encourage you to hire them?

12.8%
87.2%

■ Yes ■ No
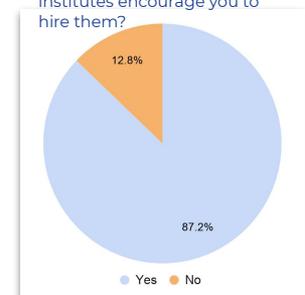
COVID-19 and Business Outcomes

Are you likely to lay off staff?

- Not likely: 48.9%
- Yes: 28.1%
- No: 23.0%

Legend: Not likely, Yes, No

What was your level of remote work before the pandemic?

- 0-25%: 13.4%
- 26-50%: 34.6%
- 51-75%: 37.4%
- 76-100%: 14.6%

Legend: 0-25%, 26-50%, 51-75%, 76-100%

What new opportunities have emerged for your business due to the pandemic?

Opportunity	Value
Expansion and diversification	15.42
Creation of new products and services	20.34
Innovation and disruption	20.13
Partnerships	28.05
Access to new markets	13.28
Recruiting new hires	2.78

(Axis: 0.00, 10.00, 20.00, 30.00)

Beyond the health threats, the pandemic has left economic disruptions and labour market shocks in its wake. However, the narrative seems a bit different for employers that were surveyed.

While other sectors such as aviation, hospitality and tourism are experiencing employment contractions, more than 70% of employers surveyed say they will not or are less likely to lay off workers. Employers say that following the pandemic they have forged new partnerships, created new products and services, expanded and diversified their business operations and have accessed new markets.

We found that 72% of the employers were already at advanced stages (above 50%) of remote work. This may, in part, be responsible for their ability to remain resilient in the face of the pandemic.

Nevertheless, about 75% of employers say that the pandemic has impacted their businesses mostly in terms of cash flow and payment of salaries. In terms of support, they indicate that securing finance (34%) and retaining clients (31%)will be top priority.

Impact of COVID-19 — Scale of impact

Impact of COVID-19	Scale of impact
Salaries and wages	40%
Cash flow	39%
Recruitment	19%
Sales	18%
Investment	16%
Foreign exchange	15%
Production	8%
Rentals	7%
Debtors	6%
Supply chain	5%

Women in the Digital Sector

Interview responses as well as surveys with employers indicate that the digital sector is male dominated. This is consistent with findings from Center for Global Development which revealed that 30% of tech firms are owned by women, while only 6.5% are top managers within those firms.

Of the women population interested in the digital sector, many are largely interested in digital marketing (58.73%) and data analytics (30.89%). These interest areas can be harnessed, while they can be made aware of the other opportunities within software development and network and cybersecurity.

Social norms as well as limited opportunity for female education limited the prospects for the increased participation of women in the sector. Some social settings for instance socialise women in ways that limit their aspirations to specific kind of jobs such as nursing and teaching. According to industry experts, some of the reasons responsible for this disparity is because men tend to have some clarity about how they want to play in the digital sector and know how to communicate their competencies compared to women.

Employers we interviewed confirm that there is a tendency within the sector to have a bias (conscious and unconscious) for men. This might be as a result of societal expectation of the kind of work that men and women should do. However, organisations are increasingly making effort to embrace diversity according to one of the leaders in the industry

Already, gender focused networks are already emerging to support women participation within the sector. Notable initiatives include innovation hubs such as She leads Africa, Women focused acceleration programs such as Venture Garden Groups, Greenhouse lab and Impact hub. A number of networking events are also emerging such as African Women in technology Conference and tech Women Lagos. Many of such initiatives are almost non-existent in the North.

Reflections and Recommendations

Advancements in technology will continue to shape and transform economies globally and this realization has become entrenched due to the pandemic. As we herald a new decade, Nigeria's ability to reap the benefits of the digital sector will depend largely on the country's willingness to deploy technology and the extent to which policy allows innovation to thrive.

The potential is that Nigeria has an increasing youth population and has the largest mobile market in Africa. The benefits of this potential are already visible across macroeconomic indicators discussed earlier in this report, and if the predictions about the fourth industrial is anything to go by, Nigeria can be the poster child for digital transformation on the continent.

While it is important to recognize the progress being made, the country currently captures only a fraction of the growth of its potential or digital development. Consequently, it will be imperative to make strategic investments that supports human capital development, creates an enabling environment as well as advance initiatives that encourages innovation within the digital ecosystem.

Invest in Human Capital Development
1. Strengthen education institutions and support reforms in education to develop industry relevant curriculum for improved skills.
2. Galvanise support for digital skills and soft skills trainings especially for women and marginalised communities.

Create an Enabling Environment
1. Create a friendly regulatory environment for the digital economy to grow.
2. Invest in infrastructure that enables ICT adoption (such as broadband internet and electricity)

Support the Innovation Ecosystem
1. Public-private partnerships to stimulate and sustain demand for the use of digital platforms.
2. Improve business climate to boost investment opportunities.

Tapping into the Global Ecosystem
1. Create remote opportunities for local talent beyond our ecosystem e.g. exchange programs.
2. Attract foreign tech players to set up and scale local/regional operations in Nigeria.