

NDESummit Outcomes Report

Theme:

Leveraging the Digital
Economy for Trade & Investment

November 2019

NDES2019 Executive Summary Report

The premiere edition of the Nigeria Digital Economy Summit, (NDES) provided a platform for key conversations around the development of a robust digital economy roadmap with key public and private sector players. The special guest Jack Ma, founder of Alibaba, highlighted the importance of the power of the Internet to spur the next phase of economic growth across the world, especially on the African continent.

The lead sponsor, Mastercard, applauded the effort to drive the conversation to develop a sustainable digital economy that brings value to everyone.

The women in leadership session powered by Business Sweden paved the way for collaborations and opportunities between Nigerian female business leaders and the business delegation from Sweden.

Meetings were facilitated between senior private sector executives and key government officials to lay the foundation for initiatives that will further deepen the synergies, and foster partnerships for mutual gains in the development of Industry 4.0.

The Minister, Industry, Trade and Investment, reinforced the commitment to continue to develop policies that will result in a robust and rich digital economy for the benefit of all.



Key Highlights:

- Development of a robust and concrete Digital Economy roadmap;
- Encourage partnerships between Ministries, Departments and Agencies, (MDAs) in their respective digital transformation journeys';
- Provision of ubiquitous and inclusive broadband internet access;
- Government should develop policies and regulations that encourage investment in the growth of the Digital Economy;
- To lift 100 million Nigerians out of poverty, Government should focus on the 4 Es: Entrepreneurs, E-Infrastructure, E-Government and Education;
- Improve efficiency of governance through digitalisation.

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Background

In 2016, the global digital economy was worth USD 11.5 trillion, equivalent to 15.5% of the world's overall GDP. The digital economy is expected to reach 25% in less than a decade, quickly outpacing the growth of the overall economy – World Bank Report.

However, Nigeria is currently capturing only a fraction of this growth and needs to strategically invest in the foundational elements of the digital economy in order to spur growth. Nigeria is the most populated country in Africa, with a population of approximately 200 million, accounting for 47% of West Africa's population and has one of the largest populations of youth and women in the world.

For many years, Nigeria was viewed as the most dynamic and innovative economy in the region. However, despite relative stability, Nigeria has not lived up to its obvious potential with regards to the digital revolution. With the current constrained growth in GDP, subdued oil prices and increasing population growth, there is a need to reimagine how the Nigerian Government invests and utilises digital development initiatives to increase relevant foreign direct investment in emerging industries, and how to achieve cost effective public service delivery.

With a population that is set to grow by 250 Million, reaching 450 Million by 2050, Nigeria is projected to become the third most populous country ahead of the United States, and with an average age of 23 years, Nigeria is at what can be described as a major crossroads.

How does Nigeria take on the challenge of transitioning to and excelling in this Fourth Industrial Revolution – The Digital Economy?

DAY 1





Otunba Richard Adeniyi Adebayo

Welcome Remarks

Welcome remarks by The Honorable Minister for Industry, Trade and Investment –

In his welcome remarks, the Honorable Minister for Industry, Trade and Investment, Otunba Adeniyi Adebayo, noted that the summit was organised, via a public-private partnership, to drive Nigeria's emergence as a leading nation by harnessing the inherent opportunities of the Fourth Industrial Revolution. He noted that the theme of the event, **"Leveraging the Digital Economy for Trade & Investment"**, was particularly apt as the nation was tackling the challenge of lifting 100 million people out of poverty over the next 10 years.

The Honorable Minister stated that in order to achieve this goal, the country must leapfrog to a "Nigeria 4.0 on the GPA scale", (one characterised by inclusive economic growth and widespread opportunities for prosperity and wealth creation). This task, he noted, was only possible via collaboration between the Government (Federal and States) and the Private Sector (Local and International) and huge investments across several sectors.

Otunba Adeniyi Adebayo acknowledged that Nigeria's young population remains a key asset which gives the nation a competitive edge in Industry 4.0. He, therefore, called for investment in Human Capital to ensure that the nation remains competitive in the years to come. He noted Africa is an attractive investment destination and Nigeria must take the lead, making the Fourth Industrial Revolution its own revolution to greatness.

According to the Honorable Minister, the administration of President Muhammadu Buhari, GCFR, is excited by the prospect of the African Continental Free Trade Agreement (AfCFTA) enabled by technology. He noted that the African youth today, who will be the main beneficiary of AfCFTA and the largest workforce on the planet by 2035, are already connected to the internet but not enough wealth has been created from the connectivity. He, however, expressed optimism that technological innovations in the next five to ten years will result in an explosion of jobs.

The Minister stated that the current administration would continue to develop policies that result in the birthing of a robust and rich digital economy. He cited examples to include projects to digitise all citizens and legal residence using biometrics, efforts to improve the ease of doing business as well as efforts to deepen the interconnectivity between different Government Ministries, Departments and Agencies.



One-2-One Session with Jack Ma

What drove you to recently spar with Professional Boxer, Manny Pacquiao? Is it the same “punching above your weight” spirit that drove your success at Alibaba?

I believe we learn a lot from strong people. We learn from their success and mistakes. Most strong people win not only because they have the muscles, but also because of their intellect. I respect strong people and I learn from them.

I'm driven by my passion to solve problems. I did not have many opportunities as a young person. This led to resentment and lots of complaints but then I learnt that complaining only increases your frustration. The only way out is to solve the problems that people are complaining about. I realised that opportunities abound in the midst of challenges. The bigger the problem, the bigger the opportunity.

If you want your company to be big, then solve big problems. If you want your company to be small, then solve small problems.

"It is important to surround yourself with people who are smarter than you and support them to succeed." –Jack Ma.

How were you able to convince your early stakeholders to join you in the journey of building this great company? What advice do you have for other entrepreneurs that are looking to challenge massive problems?

Alibaba was founded in 1999, a time when running an internet business in China was difficult. The co-founders had little money and no technology background, but

they all believed in a common vision: that the internet could help many people.

The Chinese market was riddled with numerous challenges such as a lack of credit cards, poor logistics infrastructure, etc. Investors had no confidence in the market because of these challenges.

Our team at Alibaba saw the many challenges as opportunities and resolved to build the systems/infrastructure that was missing.

Convincing investors, especially the smart ones, is not easy. They want to be convinced that the entrepreneur and his team believe in the vision and the market. Investors are more easily swayed when they find a hardworking and passionate team that believes in a common vision. It is all about believing in the vision and putting together a team that believes in that vision.

What were your highest and lowest moments building Alibaba and what do you think your legacy is?

Every day of the last 25 years we spent building Alibaba has been a difficult one. Even now that we are one of the biggest companies in China and the World, I still get many headaches. When the company was small, I always fantasised that when we grew big, I could take vacations to the beach while running the company. As the company grew bigger, I realised that growing big comes with much more responsibilities, more employees and bigger headaches. It is important to surround yourself with people who are smarter than you and support them to succeed.

Being an entrepreneur is one of the best things because you have lots of challenges that you have to deal with every day. I hope that one day, people will look back and say that I have been a good mentor. That is the legacy I want to leave behind.

You are well renowned for being relentless and tenacious. You have been rejected from so many jobs; written an exam three times; applied to Harvard University 10 times. What kept you going through your career?

I have been rejected so many times that I think I have gotten used to it. I always tell my people "to get used to it" when they are rejected by customers and partners. The rejections I faced in my life encouraged me from starting my own business and I resolved not to reject people easily. I do not reject people just because they do not have enough qualifications or because they are not good looking.

I have learnt to appreciate when people say "yes" to me and to be understanding when people say "no" to me. I believe entrepreneurs must be flexible, open-minded and get used to rejection.

What drives you to seek to make changes and solve problems?

I do not know. I never thought about that. I remember being invited to dinner by the former American President, President Obama. He said, "Jack, you and I were nobodies but I have become the American President and you have become a successful businessman. What do you think made us who we are and what do you think we should do for other people".

After the conversation, we both realised that we were lucky people. This is one thing that drives me to support other entrepreneurs across the world, and especially in Africa. I am moved and inspired by entrepreneurs who seek to solve challenges and improve the lives of other people. Entrepreneurs in Africa are responsible for economic growth, not the government. Governments across Africa should support entrepreneurs by building infrastructure and empowering them.

I have built five successful companies, and in my studies, I have discovered that companies might be successful for a number of reasons but companies fail for just one



reason. Running a company is like going to the battlefield. You have to learn how to survive and not just how to win. When you learn how to survive, you will win. But if you only want to learn how to win, you will lose.

What is your advice to Nigeria as the country seeks to lift 100 million people out of poverty over the next 10 years?

It is a great vision and mission to lift people out of poverty. Lifting people out of poverty requires that you make them rich.

There are three things governments in every country should do: make their people rich, lead the country in a good direction and develop a good educational system.

A government can make its citizens rich by encouraging entrepreneurship, which will result in the creation of more jobs. China has done a great job in the past 20 years. The Government of China sought to make its people rich and also invested massively in infrastructure.

Governments across Africa should focus on the 4Es:

1. Entrepreneurs: Entrepreneurs are the heroes of African development and the government must seek to empower and support them;
2. E-Infrastructure: Governments across Africa must invest in "e-frastructure" and not just traditional infrastructure. They should develop policies to make the internet and mobile devices available to all citizens;
3. E-government: A government that is digitally connected and powered will be transparent and efficient;
4. Education: An investment in education is a requirement to lift people out of poverty.



Mr. Carl-Michael Gräns

Remarks by Swedish Ambassador to Nigeria

Speaker: Swedish Minister for Foreign Trade represented by Swedish Ambassador to Nigeria

The Swedish Minister for Foreign Trade, Ms Ann Hallberg, who was represented by the Swedish Ambassador to Nigeria, Mr. Carl-Michael Gräns, said in his remarks that the government of Sweden was proud to partner with Nigeria in the Digital Economy Summit. He hinted that an exciting delegation of Swedish business representatives is in Nigeria ready to partner in positioning Nigeria's digital economy for the future. He noted that in the course of the 2-day summit, they hope to create a platform together with a vibrant innovative Nigerian business community to inspire each other and to build new innovative partnerships together.

Mr. Gräns described Nigeria as a fast developing market with huge opportunities in different sectors. He stated that the technological advancement of the 21st century, investment in ICT and digitalisation will contribute to the diversification of the Nigerian economy and further digitalisation will support and accelerate Nigeria reaching its full potential, hence, why Sweden accepted to be a part of the Summit.

He highlighted that the innovation union scoreboard 2019 ranks Sweden as the leading country in innovation amongst the EU member states and Sweden's vibrant start-ups have received much attention in recent years. He explained that Stockholm produces the 2nd highest number of unicorn 1billion dollar tech companies per capita in the world, only beaten by Silicon Valley. Sweden is also ranked as one of the worlds most digitalised economies, having made huge investments in ICT, and companies like Ericsson play a

crucial role in this. The digitalisation of the Swedish economy has played a key role in diversifying the economy and paved the way for new companies and new sectors to expand with more jobs and more exports to the world. He further stated that big companies like ABB have spurred small companies to innovate and develop.

The Ambassador posited that Sweden also believes in the power of corporation and co-creation between countries, industries and academia. Hack for Sweden, he explained, is a government agency promoting innovation through open data. Likewise, the Stockholm Tech festival is a platform where more than 5,000 start-ups, founders, investors, designers, developers and journalists come together to share, to be inspired and to meet the whole Stockholm startup ecosystem. He hopes Nigeria will send a delegation next year. He further mentioned that the Swedish institute was in Nigeria and held an exclusive programme for twenty selected female business managers in Abuja with lectures to help develop sustainable management techniques.



Keynote Speaker: End-2-End Digital Country Journeys - Practical Case Studies

During his remarks, Mr Raghav Prasad, Mastercard Divisional President, Sub-Saharan Africa, (SSA) region, said Nigeria has always been a critical market for Mastercard. He stated that the team is excited to contribute to the thinking on how to take forward Nigeria's digital transformation into Africa's leading digitaleconomy.

Cost of cash is approximately 1% to 1.5% of a country's GDP

The Federal Government of Nigeria is clearly at the forefront of progressive thinking and has brought together through this summit thought leaders to deliberate on leveraging the digital economy in enhancing trade and investment in the country. While working with governments across Africa, Mastercard has seen similar focus across the continent and this bodes very well for Africa's future. He explained that Mastercard is honoured to be a lead partner of the summit and to underline its ongoing commitment to Nigeria and the development of a thriving and inclusive digital economy.

Prasad highlighted that the digital economy is a key enabler of fulfilling growth which creates new opportunities for government, businesses and individuals to strive. He commended the Federal Government of Nigeria for showing commitment to define and implement the right strategies to fast track the economic and social growth in Nigeria. Additionally, he focused support of digital economy with a clear objective to further expand the goals of the digitalisation of the Nigerian economy.

As one of the leading global FinTechs, Mastercard has been working with governments globally and across the African continent to build one of the foundational pillars of a digital economy –the digitisation of payments. Across Africa, and even in Nigeria, more than 90% of payments are done in cash and this extracts a heavy toll on the economy. Our research shows us that the cost of cash is approximately 1% to 1.5% of a country's GDP. In the case of Nigeria, this could translate to between \$4bn – \$6bn per year. The cost includes, the cost of printing the cash, storing, transporting the cash as well as providing the on/off routes for cash to enter and leave the economy.

In 2018, Nigeria spent N64bn in printing notes alone. The other key issue in the cash economy is that it actively discourages the growth of the key economic actors, for example, the MSME sector –the life blood of the African economy. These many one man/woman enterprises, traders, small shops and farmers drive a huge part of our GDP and employment in Africa. Yet, these businesses find that their ability to grow is strangled, despite the best efforts of the government.

Most MSMEs do not fail because they have bad products or they do not have customers, they fail because they run out of cash, and the reason for that is the lack of access to working capital and credit. This is due to businesses being conducted on a cash bail and consequently lacking records. It therefore becomes difficult or impossible for financial institutions to assess their credit worthiness and lend to them –this sets up a vicious cycle that strangles growth. There is also the issue of shadow economies. Cash is the base of shadow economy, which leads to revenue leakages for the government in terms of lost taxes and inefficiencies. It also facilitates corruption. This takes away from the government the ability to make the much needed investment that will foster economic growth. The digitisation of payments leads to the visibility and traceability of flows, thereby driving economic growth.



According to recent research done by Moody's across over seventy countries, for every one percent increase in the digitisation of cash, there is an increase of around one billion dollars in the consumption of goods and services –this is a price that is worth having. The cash economy has a deeply insidious social and economic impact of financially excluding a large chunk of the population. Individuals are denied access to formal banking services like savings, credit, insurance and investments as a result of having no records of their financial activities. Hence, they are forced to operate in the informal sector. This means that they have to pay heavily to do transactions, borrowing at a premium from local money lenders, keeping their savings under their pillows and mattresses. This is why Mastercard believes all these have the biggest long term impact on the economy. We all have the opportunity and must make a commitment to invest in driving inclusive growth.

Mastercard's experience highlights one thing as being consistent across all the countries we worked with; digital economies are most effective when there is a drive to leverage tremendous technological advantage for inclusive growth.

With Nigeria's informal sector accounting for 65% of Nigeria's GDP, the digitisation of the economy has the greatest potential to accelerate financial inclusion by formalising the informal economy. This is a task that cannot be done by one company, government or

institution by itself. We believe partnerships are the only way to make this real. As a result, all of us must come together to commit to a common outcome – the creation of an inclusive digital growth in Nigeria. Public-Private Partnerships, (PPP) when properly focused and executed on the bases of sound business practices, can enable the platforms to drive trade and economic growth. The government, NGOs and the private sector must all come together to be a part of this effort to impact the social economic development of Nigeria.

Mastercard has a great track record of implementing e-government initiatives in over 60 countries around the world. Our partnership with government and other stakeholders, both as a market organiser and participant, has led to the development and delivery of innovative platforms that empower MSMEs, reduce the shadow economy and increase the tax revenues of governments. We are convinced that all of us working together can have an impact in Nigeria and support the government's plans for a digital future.

Raghav applauded the effort of the organisers for putting together this conference to drive conversations that will catalyse the development of a sustainable digital economy that brings value to everyone. He concluded by stating that Mastercard is delighted to have partnered with the organisers on the summit and looks forward to leveraging their decade of experience to support Nigeria and its citizens on this journey.

facebook

Facebook Network Investment – Presentation

Speaker: Kojo Boakye, Head of Public Policy Africa, Facebook

Facebook's Head of Public Policy Africa, Kojo Boakye, gave a presentation on how Facebook thinks of the digital economy and why Facebook is enthusiastic about the potential Nigeria has to develop and increase its digital economy.

Kojo highlighted the challenges of internet connectivity with 3.8 billion people currently offline. With over 70% of Nigerians unable to access the internet, Nigerians lose the ability to connect with family and businesses through digital channels. Kojo outlined four key connectivity challenges that affect Nigeria:

- **Accessibility:** Infrastructure challenges which prevent people from connecting to the internet;
- **Affordability:** Access to the internet is still unaffordable for the majority of people in Nigeria;
- **Relevance:** People do not understand how the internet can be of great benefit to their lives;
- **Readiness:** How prepared are countries in Africa for the emergence of the digital economy.

Despite the current challenges, Facebook is confident about making an impact in Nigeria. Kojo gave an example in regards to how positive regulatory policies encouraged a company to invest substantially in 4G connectivity in India, enabling India to leap frog from mainly 2G connectivity to 4G over one year, giving the country a platform for its digital revolution.

Facebook is investing not to close, but eradicate the digital divide by investing in every part of IT infrastructure that will enable access to the internet. Facebook has invested heavily in subsea cabling and fibre optics in Africa.

Facebook has brought companies in the ICT sector together through the Telecoms Infrastructure Project (TIP) initiative which breaks down silos between companies and encourages interoperability in order to create better and cheaper IT infrastructure.

Facebook is
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digital divide.

Kojo summarised the main challenges to the digital economy in Africa:

- Poor data about ICT user and ICT sector;
- Myths about OTTs, leading to inappropriate regulation e.g. OTT tax;
- Poor implementation of national broadband plans;
- Some governments' investments in connectivity can crowd out private sector investment;
- Persistence of legacy telecoms policy and regulation in a digital age;
- High taxes on the ICT sector e.g. high taxes on mobile operators, data bundles, and devices;
- Spectrum availability due to delayed digital switchover, limited use of unlicensed bands, ineffective spectrum management;
- Internet shutdowns.

In order to resolve these challenges, Kojo proposed providing immersive technologies to enable individuals to become intertwined with Technology in Africa. Virtual Reality, (VR) and Augmented Reality, (AR) can be used to create improved communication experiences, bring businesses and consumers together and provide immersive training experiences. Facebook is currently working with MSMEs, NGOs, students, fresh graduates and unemployed youth in skills development programmes to support Nigeria in growing its digital economy.



Ministerial and Leadership Panel Discussion: Building Governance for a Robust Digital Economy

Moderator: Dr. Joe Abah

Panelists: Otunba Niyi Adebayo, HM, Industry, Trade and Investment;

Mallam Mohammed Abdullahi, HM of State, Science and Technology;

Mr Tunde Folawiyo, Chairman/CEO, Yinka Folawiyo Group;

Mr Grant Johnstone, VP Enterprise Development, Mastercard.

Background

With the emergence of the digital economy in Nigeria, there is a great need for collaboration between policymakers in the government and private sector players to ensure that enabling policies are developed to improve access to internet connectivity and bridge the digital gap. Partnerships between states and federal government ministries should be embarked upon to quicken the implementation of initiatives that will encourage substantial private sector investment in digital infrastructure. The data revolution, which incorporates big data and artificial intelligence, is already transforming economies globally. For Nigeria to achieve a competitive digital economy, priority must be given to areas such as big data analytics and business intelligence to promote entrepreneurial innovation.

Issues and Challenges

Lack of investor recognition of local entrepreneurs.

Traditional investors in Nigeria and the government fail to recognise and support local startup businesses with innovative business models.

Lack of an enabling environment for local businesses

The current regulatory framework does not encourage entrepreneurial advancement. There is an absence of an enabling environment to support innovative companies.

Lack of interoperability across federal government ministries

Issues arise when the federal government tries to implement initiatives that cut across different ministries which can impede the progress of the digital economy in Nigeria.

Difficulty with harmonising regulatory framework

There is a challenge with harmonising the regulatory framework in Nigeria to encourage growth of startup companies.

High cost of laying fibre due to current right of way policy

There is a high cost of laying fibre optic cables due to the excessive right of way charges paid to various states. The excessive right of way charges substantially raises investment required by telecom companies to provide internet connectivity and ultimately leads to high data prices for the consumer.

Absence of a central industry data repository

Lack of a central industry data repository that can be accessed by companies for business intelligence and research purposes. Companies invest a lot of time and money in aggregating hard to find industry data in Nigeria for business purposes.

Recommendations

Digital Economy Road Map

A concrete Digital Economy roadmap should be developed to form a framework that will be used to build a vibrant digital economy, deepen internet penetration and promote smart innovations in Nigeria. Actionable milestones and a clear cost analysis should be embedded in the roadmap.



Investor mindset change

There is a need for local investors to change their mindsets in terms of how they perceive innovative startup companies. There should be a greater willingness to invest and support Nigerian entrepreneurs. The government should develop policy that will encourage banks to support startups.

Cross government ministry partnership

To ensure the smooth implementation of initiatives and policies that will grow the digital economy, there needs to be a seamless partnership structure between the various federal government ministries in order to harmonise regulation and policies.

Policy reform

There needs to be a direct intervention of the Ministry of Communications and Digital Economy to ensure that internet accessibility is easy and affordable to Nigerians. Regulation should be enacted to reduce the internet access cost.

Uniform Right of Way, (RoW) tariff

The federal government should liaise with all the states to develop a uniform right of way tariff, which will reduce the current high cost of fibre deployment across states in Nigeria and subsequently reduce the cost of data to consumers.

Central industry data repository

The government should drive the development of a central data repository which will integrate the data silos across private and public sector for purpose of giving companies readily available and affordable access to big industry data.

DAY 2





Opening Remarks

Opening Remarks by Honorable Minister of Science and Technology – Mr Ogbonnaya Onu

In his opening remarks, the Honorable Minister, Science and Technology, Mr Ogbonnaya Onu, stated that it is important that this summit is taking place at a time when Nigeria is working hard to diversify her economy so as to take full advantage of its AfCFTA membership. He commended the organised private sector for their role in bringing to Nigeria distinguished entrepreneurs as a way to encourage young people to believe in themselves, take their destinies in their hands and work hard irrespective of the challenges and problems to achieve and realise their dreams.

He further stated that this administration holds the private sector in high regard and is determined to work closely to serve the best interests of Nigeria. The Minister acknowledged the contribution of the private sector in job creation, poverty reduction and the growth of Nigeria's gross domestic product, (GDP).

The Minister opined that the global economy is undergoing a digital transformation as a result of the Fourth Industrial Revolution. This is creating a digital economy, enabling a country's ability to effectively participate in global trade and growth depending on its technological, social and organisational innovation and capacity.

The digital economy is already disrupting the conventional way businesses are structured, how firms interact and how consumers obtain services, information and goods. The backbone of digital transformation is hyper-connectivity of people, organisations and machines using the internet and mobile telephone technology.

The spread of digitalisation is transforming economic, political and social structures worldwide faster than in previous industrial revolutions.

This transformation, he explained, has given rise to new production and consumption models. Science, Technology and Innovation as well as the development of the digital economy are increasingly important in facilitating the moves towards new development models. The only way to achieve this and remain competitive in the world market is by redoubling the efforts in the use of Science, Technology and Innovation to facilitate the transfer and construction of technological capabilities.

The Honorable Minister said it is regrettable that Nigeria missed out at the First Industrial Revolution and was also left behind in the Second and Third. Nigeria, therefore cannot afford to be left behind in the Fourth Industrial Revolution.

The circumstances that led to Nigeria not participating in the first, second and third industrial revolutions are well known. But things have changed since then; Nigeria has the largest population in Africa, one of the largest in the world as well as the largest market and economy in Africa.

Nigeria is considered a young nation, not because of how old the country is but as a result of the average age of our population. It is estimated that by the end of this century, if our population continues to grow at its current rate, Nigeria's population will be about 1 billion. Hence, there is a need to grow our economy in both an inclusive and sustainable manner. We therefore must do everything that is necessary to participate in the Fourth Industrial Revolution.

The government, he said, is employing science, technology and innovation to accelerate economic growth in a way that achieves productivity, competitiveness, job creation, wealth creation and poverty reduction in an effort to achieve the happiness of

Nigerians. He explained that in the past four years, the Federal Ministry of Science and Technology has put in place five new policies: **Science, Technology and Innovation roadmap 2017-2030; The National Strategy for Competitiveness in Raw Materials and Product Development in Nigeria; Executive Order Number 5; National Policy on Leather and Leather Products; and National Policy on Use of Methanol Value Chain in Nigeria.**

The roadmap is the compass showing the way for what government MDAs should do to help transform the economy from depending mainly on commodities, to becoming more dependent on knowledge that is innovation driven. The National Strategy is helping Nigeria reduce the volume of imports. The Executive Order Number 5 is a revolutionary document that will help Nigeria to develop appropriate technology to solve national problems as well as encourage the use of local content.

According to the Minister, the government is vigorously pursuing the commercialisation of the research results so that they can be converted into products and services that are available in the market place to meet the needs of the nation. Technology incubation centers are also being used to encourage the development of new entrepreneurs through start-ups. This has started yielding positive results as some of these start-ups have continued to grow into large enterprises over the years.

He charged the organised private sector to play a key role in the commercialisation of research results. The government, he said, has laid the foundations for the emergence of a new generation of entrepreneurs and business men and women that will use technologies developed in Nigeria to compete favourably within the committee of nations.

He concluded by stating that the changes and problems confronting Nigerians provide them with the opportunity to continue with research and innovation to help solve those problems. In the process they will create wealth both for themselves and for the nation. With the foundation the government is laying, the richest Nigerians in the future will be those whose wealth has been built on knowledge and innovation.

"It is regrettable that Nigeria missed out at the 1st Industrial Revolution, and was also left behind at the 2nd and 3rd, but cannot afford to be left behind in the 4IR."

Business Case Studies



EQT Ventures

Presentation by Henrik Landgren

EQT is a venture fund investing in small companies in Europe. EQT makes minority equity investments in tech companies with growth potential in Europe and the US ranging between €3m and €75m. Through its data driven approach EQT invested in a technology called "Motherbrain".



Motherbrain is a neural network program developed by EQT to identify and prioritise investments. The technology has the ability to scope out deals early in the pipeline.

Motherbrain uses convolutional neural networks, or the most popular form of machine learning, to review time-series data about companies to help guide where the firm (EQT) should invest.

Motherbrain's technology enables division of labor: the motherbrain pinpoints where human uncertainty lies, allowing people to spend more time on some tasks that demand this sense of uncertainty.

War on Cancer App

Presentation by Fabian Bolin

War on Cancer is a social media app for patients, survivors and loved ones. The app encourages patients to tell their stories so they can help others going through the same situation.



'War on Cancer' is designed to make patients feel like themselves while undergoing different stages of their treatment. The aim is to collect data on patients which can be used to develop new cancer treatments. This presentation showcased the power of digital media. Fabian Bolin leveraged access to the internet to help himself as well as others who are living with cancer or are cancer survivors.

Grace Health

Presentation by Estelle Westling

Grace Health utilises AI technology to help improve the lives of women. Grace Health is a chatbot — an instant, private and free way to learn about sexual and reproductive health. It tracks period symptoms and fertility as well as offering tips and reminders.



The app is built with the intention of putting female health into the pockets of all women worldwide.

Leadership Panel Discussion: Digital Drivers for Economic Empowerment

Background

Globalisation of the internet and the flow of data across borders have led to the digitisation of economies, with every sector of the economy now relying on the Internet, Big Data and Analytics to conduct business.

Governments, Businesses, and Civil Society in the developed and developing world are starting to use these technologies to boost economic growth, create new jobs, improve public service delivery, strengthen social and economic inclusiveness, and improve governance.

The digital economy is of great benefit to the average citizen because it is transforming all aspects of life; from communications to finance, manufacturing to e-commerce, etc. It is therefore important for Governments, both Federal and States, to implement policies which will drive the growth of the digital economy in Nigeria.

Issues and Challenges

Lack of privacy and loss of control over data

Privacy is a big concern in the digital economy. It is estimated that 58% of Americans think they have lost control over their personal data. Organisations capture all manner of data from users and there is little or no regulation that control the use of these data. Furthermore, the average user is not well informed about what organisations do with their data.

Large number of citizens without access to the internet

According to Facebook, over 70% of Nigerians do not have access to the internet and are missing out on the benefits of the digital revolution. These citizens are being robbed of the benefits that being connected offers. This cannot be allowed to continue if the nation wants to truly embrace the Fourth Industrial Revolution.

Last mile payment to beneficiaries of the Social Investment Program

Due to the lack of payment infrastructure, most beneficiaries of the Government's Social Interventions Programme, (SIP) have to be paid in cash. With the 'Cashless Policy' of the Central Bank of Nigeria (CBN) expected to be implemented Nationwide by March 2020, the SIP is greatly threatened as most of the transactions would be expected to go cashless. This presents a huge challenge as the beneficiaries are unbanked and also without mobile devices or access to the internet.

Recommendations

Build system and structures that hand over control of data to the users

Over the next 10 years, there are two possible scenarios in resolving the privacy concern; do nothing and watch individuals lose total control of their data or implement structures and systems that give users technical and legal control over their data.

Implementing structures and systems that give users technical and legal control over their data will enable them to share, revoke access and audit the use of their data. This requires data infrastructure to be built by the government. When such a system is integrated with lending and payment platforms, it has the potential to greatly increase financial inclusion by providing financial institutions with secure access to data which can be used to determine the credit worthiness. Such a system would also allow the instantaneous payment of the credit facility if the borrower is determined to be credit worthy.

Government to introduce policies to aid growth of digital

The digital revolution is of great benefit to all citizens. Governments, both Federal and States, should be encouraged to implement policies that will spur the growth of the digital economy. This will create opportunities for learning new skills, extending market reach and creating new jobs that can bring about economic prosperity for millions, which is critical to Nigeria's GDP growth, irrespective of shortcomings in traditional infrastructure.

Mastercard Farmers Network



Allowing payments through 2Kuze (in Africa) and e-Rythu (in India) to be made safer and simpler for all stakeholders in the agricultural supply-chain, including the farmer, the buyer and the agent



Keynote Speaker: Case Studies of Transforming Lives and Economies in Africa

Speaker: Michael Elliot, Senior Vice President, Strategic Growth, Mastercard

Senior Vice President, Strategic Growth at Mastercard, Michael Elliot, emphasised how Mastercard is currently playing in the non-traditional or formal financial services space such as the agriculture and MSME. The company is also partnering with other organisations and government to deliver services. He gave an example of how some young people in a village in Niger desired to be part of the real economy and derive opportunities to farm as a business in order to engage in economic activity.

Mr Elliot stated that when Mastercard thinks about the real economy, they start with financial inclusion.

According to Mastercard, there are two billion people that are not financially included, with a disproportionate number being women and youths. Mastercard made a commitment five years ago to onboard five hundred million people unto formal financial systems. In order to create cases around the financial inclusion space for people at the base of the pyramid, Mastercard is focused on three interrelated objectives.

- Engagement: become an indispensable partner to countries, the people and governments.
- Innovative solutions and business models: provide bundled solutions to serve new verticals and segments.
- Social Impact: address major social and economic issues in a commercially sustainable way.

Mastercard drives social impact across the world through partnerships in order to strengthen communities and drive access to the real economy for the unserved people. Michael gave an example of Mastercard's social impact partnership by referring to work being done in the education sector in Uganda. Mastercard in partnership with the ministry of education in Uganda created a product which makes it easy for parents in rural areas to pay school fees more effectively. The product gives schools a better way to track fees and provides the government with visibility into payment to understand how schools are operating from a financial standpoint. Currently, two hundred and fifty thousand students are on the platform.

Mastercard is also focused on the agriculture sector. With 64% of farming households in Sub-Saharan Africa owning a mobile phone, there is a need for individuals to be given technologically appropriate solutions in the agricultural space.

Mastercard is rolling out solutions geared towards agriculture such as the Mastercard Farmer Network which connects farmers to networks, aids in acquiring pricing information and helps suppliers source from smallholder farmers more cost effectively. The data aggregated on the platform can be leveraged on to drive access to finance for farmers.

Michael made mention of the difficulty MSMEs have accessing formal financial services. Mastercard has digitised the relationship between MSMEs and suppliers through a product called KIONECT. In partnership with large FMCGs, data about what a micro merchant is buying and selling can be used to unlock access from the banking sector.



Citizens who have not been digitally identified are excluded from the formal economy

Keynote Speaker: Digitising Government

Speaker: Mikael Ahlström, Founder of the Park, Sweden

When Bitcoin and Blockchain started to change the world for the Banks, it was seen as a disruption but the entrepreneurs and the startups called it opportunity.

Digital innovation is not just about IT, it is about strategies and mainly about cultures. Sweden grew to become a digital hub when it started giving opportunities to entrepreneurs who previously used to work from basements and apartments. The government got them into co-working spaces and accelerators and this started to shape an entirely new ecosystem. We realised that data can be harvested and turned into value.

The government and its agencies sit on so much data and must choose to be firm on freeing data and, by doing so, allowing entrepreneurs the opportunity to explore and be more creative. It will also provide opportunities for the creation of new features that will not only develop and improve society but also foster the creation of new unicorns.

This kind of GovTech initiative was done in Sweden which gave rise to what we know today as 'Hack for Sweden'.



Leadership Panel Discussion: Digitisation of the 'Real Economy' and Roadmap for a Digital Government

Moderator: Banke Alawaye

Panelists: Michael Elliot, Senior Vice President, Strategic Growth, Mastercard;

Mikael Ahlström, Founder, The Park, Sweden;

Vivian Nwakah, Founder, Medsaf;

Ibrahim Ba, Investment Lead, Facebook;

Carolina Emanuelson, Partner Manager, Hack for Sweden;

Christian Landgren, Founder, Iteam

Background

The competitiveness of a country is crucial for the prosperity of its people. If an economy is competitive, local companies can sell their products at home and abroad. Digitisation of the real economy can drive the rapid growth of Nigeria's international competitiveness.

The digital economy has transformed lives and societies with unprecedented speed and presents limitless opportunities for organisations across all sectors of the real economy. Digitisation can serve as an enabler of growth for key sectors such as Agriculture, Health and Manufacturing, creating an enabling environment for MSMEs to flourish. The democratisation of data can pave the way for companies across verticals to access key business intelligence to aid decision making and strategy formulation.

The core priority of the government in partnership with the private sector is to spear head the deployment of internet connectivity to all citizens. The utilisation of data analytics, robotics, process automation, machine learning and artificial intelligence will lead to the improvement of organisational efficiency and revenue growth.

The digitisation of supply chains across sectors can create transparency and visibility into industry ecosystems. The benefits of digitisation of the real economy is vast and concrete measures need to be undertaken to harness its power.

Issues and Challenges

No visibility over Nigeria's healthcare supply chain

There is a lack of visibility and transparency of the healthcare supply chain by NGOs, the government and private sector . This has led to organisations not having the access to data which can enable investment in the healthcare industry.

Citizens located in rural communities not digitally identified

There is a low rate of digital identification of citizens located in the very rural communities in Nigeria. Citizens who have not been digitally identified are excluded from the formal economy.

High cost of smart mobile devices

The smart mobile devices are integral to internet connectivity. There is currently adequate 2G and 3G coverage in Nigeria but affordable smart phones do not exist which creates a barrier for into the digital economy. A substantial number of Nigerians cannot afford to purchase devices to go online and take advantage of available digital applications.

Inadequate power supply

Nigeria currently faces a huge power deficit. Inadequate power supply especially in rural areas that are not connected to the national grid, hinder the growth of digital penetration in Nigeria.

Recommendations

Digitisation of industry supply chains

There should be a private-public sector collaboration to enable better visibility of the supply chain across sectors in Nigeria. This will give the government greater insight into the operational efficiency of industries in the country and it will provide the private sector a means to effectively analyse the current market status and industry ecosystem which will in turn aid in investment decision making.

Development of software data infrastructure

The government should partner with the private sector to develop an open software based data infrastructure, which will enable companies and innovators to access and analyse the open data that will drive innovations and job creation in the country.

Formulate initiatives to drive the citizen digital identification in rural areas

An effective national identity management system is critical to the development of any economy. With citizen identification being central to realising the federal government's Economic Recovery and Growth Plan, (ERGP) it is essential that focused initiatives are embarked upon to integrate digitally excluded citizens based in rural areas while ensuring that their privacy rights are not infringed on.

Provision of alternative power supply

The government should invest in alternative off grid power supply methods such as solar power. Remote rural communities are better off being powered through off grid methodologies. Access to stable power supply will extensively reduce the digital divide in Nigeria.

Development of basic mobile applications

The key players across industries in the private sector should drive the development of basic mobile applications such as Unstructured Supplementary Service Data, (USSD), which can be accessed and used by the low income citizens who cannot afford a smart phone.

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