KTA ANNUAL SYMPOSIUM

KTA ADVOCATES | UNCDF

Achieving Uganda's NDPIII Goals:

How Intellectual Property, Digital Trade and the 4IR can Facilitate an Inclusive and Robust Digital Economy.

www.symposium-iptech.com

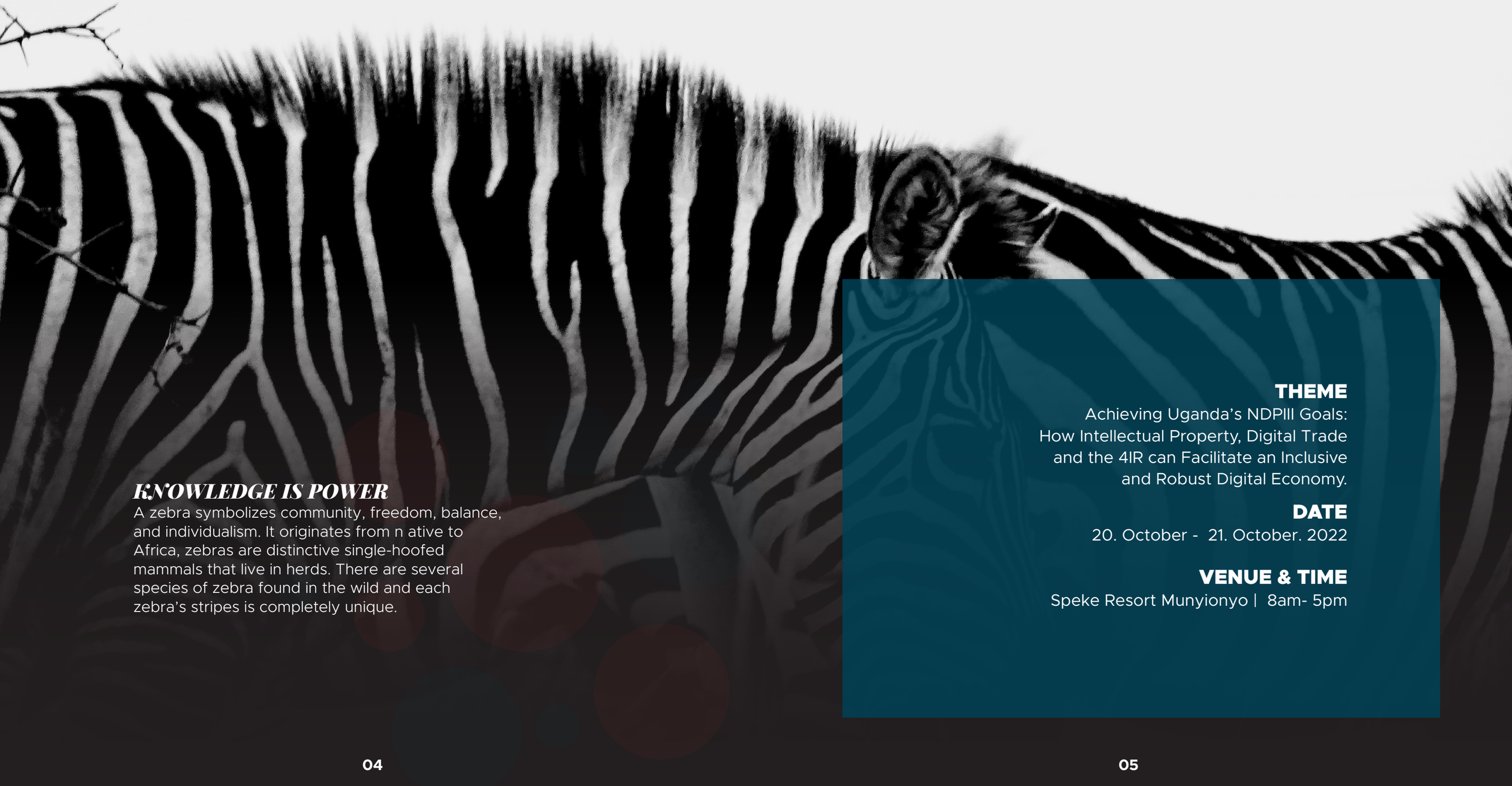
List of Acronyms

1	AfCFTA	African Continental Free Trade Area
2	AI	Artificial Intelligence
3	DST	Digital Services Tax
4	EAC	East African Community
5	ECCMIS	Electronic Court Case Management Information System
6.	FinTech	Financial Technology
7	GDP	Gross Domestic Product
8	ICT	Information Communications and Technology
9	IP	Intellectual Property
10	IPR	Intellectual Property Rights
11	MNEs	Multi-National Enterprises
12	MNO	Mobile Network Operators
13	NDP	National Development Plan
14	RCDF	Rural Communications Development Fund
15	RTGS	Real Time Gross Settlement
16	SMEs	Small and medium-sized enterprises
17	TRIPs	Agreement on Trade-Related Aspects of Intellectual Property Rights
18	USSD	Unstructured Supplementary Service Data

List of Institutions

1	AU	African Union
2	EAC	East African Community
3	ECOWAS	Economic Community Of West African States
4	FITSPA	Financial Technologies Services Providers' Association
5	KCCA	Kampala Capital City Authority
	MoICT & NG	Ministry Of ICT And National Guidance
6	NIRA	National Identification And Registration Authority
7	NITA (U)	National Information Technology Authority (Uganda)
8	OECD	Organization For Economic Co-Operation And Development
9	PDPO	Personal Data Protection Office
10	UBA	Uganda Bankers Association
11	UBOS	Uganda Bureau of Statistics
12	UCC	Uganda Communications Commission
13	UN	United Nations
14	UNCDF	Uganda Registration Services Bureau
15	WIPO	World Intellectual Property Office
16	WTO	World Trade Organization

KTA 5th Annual Symposium Report



KNOWLEDGE IS POWER

A zebra symbolizes community, freedom, balance, and individualism. It originates from n ative to Africa, zebras are distinctive single-hoofed mammals that live in herds. There are several species of zebra found in the wild and each zebra's stripes is completely unique.

THEME

Achieving Uganda's NDPIII Goals: How Intellectual Property, Digital Trade and the 4IR can Facilitate an Inclusive and Robust Digital Economy.

DATE

20. October - 21. October. 2022

VENUE & TIME

Speke Resort Munyionyo | 8am- 5pm

KTA ADVOCATES
THE GO -TO REGIONAL FIRM OF CHOICE

The firm's clients range from leading businesses in banking, e-commerce, sports, entertainment, technology, beverage & hospitality, telecommunications, broadcast entertainment, music and publishing through to platforms, content retailers and early-stage entrepreneurs.

The firm champions at advocacy on a wide range of aspects that affect their clients' businesses ranging from regulatory, operational and compliance aspects that most affect their given nature of business. These include matters of transportation, data protection, cyber security, payments, cross border trade in the region anti-competition, copyright, e-commerce, blockchain & cryptography among others. This advocacy extends to national contributions.

The firm is a member of the Amani IP Network of Intellectual Property Practitioners AmaniIP in the region and has offices in Nairobi, Dar-es-salaam and Bujumbura. We also work with other trusted law firms in several jurisdictions in Africa including Kenya, Tanzania, Burundi, South Sudan, Democratic Republic of Congo, Ghana, Nigeria, South Africa, Tunisia, Morocco, Mauritius as well as law firms in Europe, Asia and North America with similar media, technology and IP focus, covering all key worldwide jurisdictions.

KTA provides an avenue through which the team of twenty (20) highly specialised Advocates render a range of legal services to clients globally. KTA is driven by its defined mission and values, which form the foundation for the business model built around solving clients' problems while incorporating them into the firm strategy. The firm is also conscious of the magnitude of its services and the need to protect its clients therefore the firm always has an updated professional indemnity policy.

United Nations Capital Development Fund
Impact Capital for Development

LEAVING NO ONE BEHIND IN THE DIGITAL ERA

> Our vision is to promote digital economies that leave no one behind.
>
> Our goal is to equip millions of people by 2024 to use innovative digital services in their daily lives that will empower them and contribute to achieving the Sustainable Development Goals.

Dear Reader,
It gives me great pleasure to present you with the report of the fifth Annual Symposium on Intellectual Property and Digital Inclusion hosted annually by KTA under the theme **Achieving Uganda's NDP III Goals: How Intellectual Property, Digital Trade and the 4IR can Facilitate an Inclusive and Robust Digital Economy.**

I emphasize that when it comes to mind made products, intellectual Property (IP) is to technology what technology is to the Fourth Industrial Revolution (4IR).
The term intellectual property refers to the total of all innovations, literary and artistic works, designs and symbols, names, and visuals that are employed in business.

The fourth industrial revolution (4IR) conceptualizes rapid change to technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and smart automation.

As is the culture and value at our symposium, we strive to be a confluence for new and combining ideas, and we use the newly acquired information to build capacity and chart new path for integration, partnership, and the development of our nation. This is something that we consider an essential part of our mission.

The publication of the Third National Development Plan (NDPIII) corresponded with a watershed moment in our country's history. Uganda, like the rest of the world, was struggling with the COVID-19 pandemic, as well as other disasters that were created because of the pandemic.

FORWARD..

At the heart of NDP III is an unshakable determination to rise above these challenges and focus on achieving our goal of building a modern, people-centered, autonomous, interconnected, resilient, and self-sustaining economy. It is more critical than ever to accelerate the Uganda Vision 2040, by making the most of the opportunities that our beloved nation has available such as a young, vibrant and entrepreneurial population. Uganda is endowed with an abundance of natural resources, and one of the key goals of the NDP III is to determine how these resources can be exploited and utilized in ways that are both environmentally responsible and advantageous to Uganda's social and economic development, both now and in the future. As a major part of the NDP III, the government has looked at Information and Communication Technology as a major enabler, not only for development but also as a means to improve connectivity within the country. The Digital Transformation Programme under the NDP III aims to increase ICT penetration and use of ICT services for social and economic development. The government expects that a focus on ICT infrastructure will result in increased ICT penetration; reduced cost of ICT devices and services; creation of more direct jobs in the sector; increased ICT incubation, and increased government services online.

We need to enable the rise of the digital economy. One that consists of all the different kinds of transactions that can take place on the internet. This might be anything from a video conversation with one grandmother or the digital purchase of an interesting pop song to the virtual negotiation of a deal worth multiple billions of dollars or the automation of automobile production in a factory that is digitally controlled.
The Internet may be the technological backbone of this economy, but the current explosive expansion is being driven by significant leaps forward in six digitally enabled frontier technologies namely blockchain, cloud computing, artificial intelligence, data analytics, automation and robotics, and additive manufacturing and the internet of things.
The online economy can be broken down into three primary categories. The physical infrastructure of telecommunications and the Internet (which includes telecommunications towers, fiber-optic cable, telephones, mobile phones, computers, and laptops) is at the center of it all, and it is intimately connected to the software that runs it (including Internet connectivity, encryption systems, order management applications, and financial and payment applications).
The digital and information technology sector, which is the outermost layer of the digital economy, rides on this core by making use of digital devices and digital connectivity to produce and deploy software programs and digital goods to the broader economy. This layer is comprised of the many individuals, businesses, governments, and other organizations from all over the world that make use of the digital connectivity, products, and services that are generated by the two levels that lie beneath it in their day-to-day lives and operations. When the core and intermediate layers of an economy are more innovative, the larger economy is said to be more developed. Because of this, pre-existing patterns of production and consumption are likely to evolve as the whole economy adopts more advanced digital technologies and applications. This migration provides yet another opportunity for the application of intellectual property within the economy.

As the mediums of trade shift from physical goods to digital goods and services, the need for the protection of these intellectual works, programs, and technologies becomes more and more necessary. To foster, incubate and grow creativity and innovation, securing the accompanying patent, copyright, and trademark rights is the key to commercially leveraging the benefits of the NDP III and 4IR, increasing foreign and local investment through taxes, revenue, improved competitive service delivery, and unlocking the potential that it has to offer. As such, intellectual property protection, including protection of innovations arising from the execution of the NDP III, is a vested interest for both public and private stakeholders in Uganda.

The protection takes many forms including the promulgation of relevant laws as well as capacity building in areas such as data protection and securitization of intellectual property as well as creating a national policy framework for linkages between innovation, Information Communication Technology, and Intellectual property law and practice. Examples of such laws include the 2019 Security in Moveable Property Act allows creatives to utilize their IP as collateral for loans, and improves intellectual property protection in the 4IR. The Act, which is coterminous with the National Intellectual Property Policy, promotes intellectual property commercialization by developing appropriate infrastructure that supports innovation and creativity, developing human capital for the value chain, and improving intellectual property system utilization.

There is currently a plethora of technologies being deployed in various sectors of the economy such as finance, health, education, and transport among others. Take for example, the Infectious Diseases Institute, Makerere which has taken a step towards the development of vaccines, advanced clinical research, and the delivery of medical consumables such as drugs using drones. To say the future is bright would be an understatement, the future, is already here and we as KTA through the symposium are already playing our role in shaping the legal landscape of this future. We invite you to do the same in your respective fields.

Asante.

Kenneth Muhangi,
Partner, KTA Advocates (Technology, Media, Telecommunications &
Intellectual Property), Lecturer of IP and ICT Law, Uganda's 4IR representative at
the Centre for Fourth Industrial Revolution of the World Economic Forum, External
advisor to the Ministry of ICT on innovation and ICT policy development.

KTA 5th Annual Symposium Report

The KTA Annual Symposium took place from the 20th to the 21st of October 2022 at Speke Resort Munyonyo. The event was also streamed live on the KTA Annual Symposium Website and on YouTube.

This year, the theme of the Symposium was **‘Achieving Uganda’s NDP III Goals: How Intellectual Property, Digital Trade and the 4IR can Facilitate an Inclusive and Robust Digital Economy.**

The theme of the National Development Plan III (NDP III) is “Sustainable Industrialization for Inclusive Growth, Employment and Wealth Creation”. Chapter 14 of the Plan addresses innovation, technology development, and technology transfer as drivers to an inclusive and robust digital economy. The desired result of this is an improvement in the country’s Global Innovation Index, an increase in the gross expenditure on research and Development (R&D) in the country through an increase in development, adoption, transfer, and commercialization of technologies and innovations through the development of a well-coordinated Science Technology and Innovation (STI) eco- system. This can be summarized as harnessing the creative and technology industry in the Fourth Industry Revolution (4IR).

Embracing all the elements of the fourth industrial revolution is fundamental to the success of the digital transformation program under the NDP III. In light of this, the symposium sought to facilitate a dialogue between policymakers and members of different industries who have an integral role to play in the acceleration of Uganda toward a robust and inclusive digital economy. It also sought to provide policymakers with valuable insight into how intellectual property can be used to realize the objectives of NDP III and how policy can support digital trade and technologies to lead to economic growth.

The format of the event consisted of panel discussions, plenary sessions, break-out sessions, presentations, and speeches by government officials, civil society organizations academics, trailblazers in the technology industry, business actors, and representatives from industry organizations, research institutions, business associations and development partner organizations all of who play a key role in creating and influencing policy and the economy.

INTRODUCTION...

INTRODUCTION

Cyber Security is Top Priority of Huawei

Huawei is a leading provider of information and communications technology (ICT) infrastructure and smart devices. As a company, cyber security and privacy protection are our top priorities. We are committed to building trust and high quality into every ICT infrastructure product and solution we develop. Over the past 30 years, Huawei has served more than 3 billion people worldwide, supporting the stable operation of more than 1,500 carrier networks in over 170 countries and regions, we have maintained solid cyber security records worldwide, and earned the trust of tens thousands of customers.

Our vision and mission is to bring digital to every person, home and organization for a fully connected, intelligent world. To this end, we will drive ubiquitous connectivity and promote equal access to networks; bring cloud and artificial intelligence to all four corners of the earth to provide superior computing power where you need it, when you need it; build digital platforms to help all industries and organizations become more agile, efficient, and dynamic; redefine user experience with AI, making it more personalized for people in all aspects oftheir life, whether they're at home, in the office, or on the go. We create value for our customers, we ensure secureand stable network operations, we promote industry development and we enable sustainable development.

Huawei has been operating in Uganda for the last 20 years with its products and services reaching over 15 million Ugandans. It employs both local employees andexpatriate staff and cooperates with all the telecom operators in Uganda. Huawei has more than 250 employees and local hires account for more than 79%. Hundreds of jobs directly or indirectly created.

Huawei ICT Talent Eco System at a glance in Uganda

Huawei ICT Talent Eco System Journey in Uganda:

• Huawei has since 2018 established ICT Academy in 15 different universities in Uganda including Makerere University. Huawei has trained and certified over 5,000 students to date.

• Huawei has since 2018 registered a total of 4,650 students for the Global ICT Competition. Team Uganda trained by Huawei in both 2019-2020 and 2020-2021 ICT Competitions achieved first position in the Southern Africa Regional Final and the Global Final.

• Huawei has since 2016 taken 40 Ugandan students to China for Seeds for the Future program, and trained 75 students in the online version of Seeds for the Future program in 2020 and 2021.

• Huawei has since 2012 awarded internship opportunities to over 400 students, and awarded over 30 permanent jobs to the interns in various departments.

DAY ONE...

Opening Remarks:

Remarks from KTA: Asmahaney Saad- Managing Partner KTA Advocates

Miss Asmahaney Saad, the Managing Partner of KTA Advocates welcomed the participants to the symposium. She remarked that the 5th Annual KTA Symposium was not only a meeting point for key stakeholders but an extension of KTA's values which are; innovation, nurturing relationships, and impacting lives by being part of conversations that lead to policy and digital transformation.

She noted that for the last 5 years, the firm has facilitated conversations around innovation, IP, and technology by ensuring that they bring together policymakers, regulators, and relevant stakeholders. She also stressed the inevitable need for the integration of technology in the day-to-day running of businesses to support digital transformation.

She noted the firm hopes to achieve these objectives through the KTA Symposium by tabling relevant topics each year; from digital finance and technology in 2018 to digital trade, climate change, and Intellectual Property in 2022. Re-echoing this year's theme, she remarked that the goals of the symposium were to understand how far Uganda has gone in its digital transformation agenda and to discuss how we can work together to utilize IP, and digital trade aspects of the 4IR to facilitate an inclusive and robust digital economy.

She mentioned that the adoption of digital trade in Uganda over the past few years has highlighted the need for inclusion among all Ugandans. To achieve digital inclusion, there have to be progressive policies, innovations, infrastructure, and levels of literacy, especially around the laws that govern this digital trade.

She recognized the efforts of her fellow Partner at KTA, Kenneth Muhangi who over the last 5 years has consistently challenged KTA as a partnership to steer these conversations that will indeed impact the lives of Ugandans. She also thanked the co-conveners of the event- the United Nations Capital Development Fund, and all the partners listed in the annexure of this report.

Remarks from United Nations Capital Development Fund (UNCDF)- Mike McCaffrey- Digital Regional leader, East Africa, and Southern Africa, United Nations Capital Development Fund

"Digital economies do not automatically lift all boats. They do not automatically make life better for all... The future is here but it is not equally distributed" -Mike McCaffrey

With this background, he discussed the goals of UNCDF to build robust digital economies in a way that includes youth, women, and marginalized communities. He stated that Uganda is not new to innovation. He gave an example of high levels of mobile money integration in Uganda with 54% of adults in Uganda having a mobile money account, ranking it 8th in the world. However, even with this, he noted that digital integration will not automatically lift all boats and make life better for all. In light of the above, he gave the following recommendations for achieving greater equality:

1. Preparing people by giving them the skills they need.
2. Preparing to build the future in Uganda. This means that a digital economy should mean more jobs and products for Ugandans that build Uganda.
3. Digital solutions should solve meaningful problems. They should be solutions that make the daily lives of the poor better, not just solutions for the privileged e.g., dating applications.
4. Digital economies should also take care of the have-nots. Not everyone can work for a tech company and opportunities should also reach those who cannot benefit directly.
5. There is a need for strong consumer protection.
6. The country should also be prepared for and have solutions for the e-waste that a digital economy will create.

Remarks from the Uganda Law Society and the East Africa Law Society: Bernard Oundo- President Uganda Law Society (ULS) and East Africa Law Society(EALS).

The President of Uganda Law Society emphasized that the 4th Industrial Revolution, Intellectual Property, and Digital Trade are topics that are all intertwined. Furthermore, the Covid_19 Pandemic propelled the 4IR making it an issue that became even more relevant than before. He expressed pleasure that this year, the Symposium's scope was widened to include the NDP III goals, whose objective is to improve household incomes and the lives of Uganda.
He also expressed gratitude to KTA for taking on thought leadership on these issues because it is the way that lawyers give back. Furthermore, the ULS and EALS were glad to be associated with the symposium which was endeavoring to create the conditions under which development could flourish.

Key Note Address

Keynote Address by His Excellency Gen (Rtd) Yoweri Kaguta Museveni, President of the Republic of Uganda represented by Hon. Dr. Ezra Suruma, Senior Presidential advisor for Finance and former Minister of Finance, Planning, and Economic Development.

Topic: "The Role of Innovation, Technology, and Intellectual Property in Aiding Uganda to Achieve Middle Income Status."

"Innovation is an outcome of complex interactions between diverse actors...'- His Excellency Gen (Rtd) Yoweri Kaguta Museveni, President of the Republic of Uganda"

His Excellency gave a comprehensive history of Uganda's policy initiatives regarding science and technology and how it informs and has led to the current NDP III Goals.
Uganda, Kenya, and Tanzania first coordinated in matters of Science Technology, and Innovation through the East African Common Services Organization (EACSO) in December of 1961. EACSO became the East African Community in June of 1967. During this time, Science, Technology, and Innovation (ST&I) were supposed to play a key role in industrialization but they did not feature vividly at the time. Instead, it was focused more on research to improve productivity in agriculture and take on tropical diseases like malaria. Some scholars say it was given low priority in the development process.
He however mentioned that African countries, including Uganda, in the 1960s and 1970s started National Research councils to guide research efforts. During that period, the President spearheaded value-added research which for example, led to Africa's first herbal toothpaste brand. In the 1970s and 1980s however, development planning was interrupted by civil unrest. After this period, the government in the 1990s was focused on creating an economic program that was aimed at stabilizing the economy through revitalizing the private sector and other reforms. The Public Investment plan (PIP) was later introduced and this was replaced successively by NDP and NDPII. Currently, there exists the NDP III and the National Resistance Movement Manifesto.

Over the past decade, substantial effort has been used to achieve Uganda's vision to become an upper-middle-income country by 2040.
The theme of NDP III is 'Sustainable Industrialization for inclusive growth, employment and wealth creation" and in particular Chapter 14 which relates to Digital Transformation is relevant.

In June 2021 the President directed that the Ministry of ST&I be placed under the Office of the President for direct and effective management. This administrative change birthed the docket of ST&I under the Office of the President.

His Excellency discussed the key opportunities related to NDPIII. There are opportunities to leverage technology and intellectual property in medicine, deliveries, education, transportation, and many other sectors. It is now possible to use technology to deliver services at a fraction of the cost. Ride-hailing startups like SafeBoda and Uber are changing the semi-informal transport ecosystems. Companies like these create opportunities for employment in Uganda. Through the use of telelearning and e-government services, hard-to-reach communities can be used and served. Uganda has been one of the pioneers of mobile payments. Digital trade is growing at a steady rate in Uganda and has the potential to improve the level of financial inclusion in the economy.
While the country has made progress, there remain some challenges, a major one being the need to urgently halt and reverse brain drain in STEM caused by unemployment and the need to supplement one's income outside the public system.

He recognized the role of KTA Advocates and their partners who are facilitating the identification of the gaps and working towards filling them. He closed by stating that the desired outcome of initiatives like the symposium will shape the outcome of a digital future.

Panel Discussions

Panel one

Intellectual Property, Science, Technology, and Innovation as drivers to sustainable industrialization Panel.

‘Innovate, protect or perish’
– Mercy Kainobwisho, Registrar General- Uganda Registration Services Bureau

The panel was chaired by Mr. Morrison Rwakakamba- the chairperson of the Uganda Investment Authority.

This panel comprised Hon. Dr. Ezra Suruma- Senior Presidential Advisor and former Minister of Finance, Planning and Economic Development, Mr. Anthony Taubman- Director of Intellectual Property at the World Trade Organization, Eng. Dr. Dorothy Okello- Dean School of Engineering Makerere University and Director of Innovation at Resilient Africa Network, Ms. Mercy Kainobwisho Registrar General- Uganda Registration Services Bureau, Ms. Kevin Kaija, Chief Content Officer- Next Media Services and Hon. Professor Sandy Stevens Tickodri-Togboa, Chairperson Kiira Motors

This panel discussed how intellectual property law and policy can spur and incentivize, and support innovation, leading to increased industrialization across numerous sectors and value chains in Uganda.Notid

1. The state of Intellectual property in Uganda:

The panelists noted that there is a strong legal and policy intellectual property (IP) infrastructure in Uganda. This includes a robust set of legislation, the National Intellectual Property Policy, and the science, technology, and innovation policy. This is buttressed by the efforts of the Uganda Registrations Services Bureau (URSB) in disseminating information about the registration of intellectual property and the benefits of registration. There is a strong enforcement structure in place in the event of an infringement. Key players in this space include URSB, the Director of Public Prosecutions, the Uganda Police, and the courts of judicature. However, patent fillings are still very low in the country, at only about three hundred and piracy is still rampant in the country.

The genesis of this problem is multi-faceted and can be attributed to several factors, the prime among them being the gap in knowledge of intellectual property among the vast population. This has varying consequences. It leads to innovators releasing their inventions onto the market or to the public without registering them with the national IP office. As such, infringement is not enforceable in the courts of law. Additionally, such inventions usually lose novelty as a result, and thus, patentability. It also leads to unintentional piracy and infringement of copyright-protected works. Secondly, there is a lack of innovation hubs in Uganda where people can prototype and test products before they seek to protect their inventions.

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2. Bolstering the state of intellectual property in Uganda:

The Uganda Registration Services Bureau (URSB) is actively promoting the registration of intellectual property through educating the masses, collaborating with research and development programs in universities, and working with media platforms. Additionally, URSB has put in place thirty-one technology innovation support centers where innovators can access databases provided by the World Intellectual Property Organization. This helps with knowledge transfer and similarly helps innovators to avoid making inventions considered to be prior art.

3. Use of intellectual property to support and incentivize innovation in Uganda:

The panel emphasized the need to make greater efforts to educate the public about intellectual property (IP), even the people at the grassroots. Intellectual property and the respect thereof must predominantly feature in the places where creation and invention are birthed, such as universities, tertiary institutions, and schools. Both public and private institutions must have IP strategies and policies in place not only to educate people about IP but also to resolve issues of ownership.

It is equally important to harness the opportunities present in knowledge and technology transfer. While the role of intellectual property in foreign investment is usually examined through the lens of incentivization, intellectual property is also the currency of technology partnerships through which most technology development is achieved. Rather than a tightly confined vertically integrated approach, the more horizontal the partnerships the better.

It is important to have an approach to investment that encourages partnership and engagement to the extent that the entity wishing to partner has confidence that its intellectual property will be protected to an adequate degree.

4. Fostering innovation and uptake of technology to achieve sustainable industrialization:

‘There are three areas we must look at knowledge creation, knowledge protection, and knowledge deployment’-
Eng. Dorothy Okello

The panel noted the importance of prioritizing the aspirations of digital transformation in Uganda. However, when it comes to the allocation of funds to the relevant sectors, there are conflicting priorities. Therefore, resources become scattered and meager making implementation an issue. However, given the fact that technology drives development, it is more important than ever to consider it an important priority.

With a young, entrepreneurial, and trainable population, Uganda has a good foundation to build on. The success story of Kiira Motors Cooperation is proof of Uganda’s potential. Having originated from Saint Mary’s College Kisubi and refined in Makerere University, Kiira Motors aspires to address mobility issues in Africa. The entity has effectively employed the use of green technology and is contributing to Uganda’s e-mobility agenda. The company has aspirations of producing at least ten percent of the cars used in Africa within the next ten years and by 2030, having electric vehicles with 56%of the parts produced in Uganda.

- In an order to create a sustainable value chain, Uganda should make effective use of its natural resources such as iron to create a competitive advantage in the global market. In regard the e-mobility, this can include making our own batteries.
- There is a need to instill an innovative mindset among Ugandans. This is can be done through the education sector. The panel noted that the role of the university is to nurture ideas, support creativity, be grounded in the sciences, co-create with communities, spur ideas and provide an enabling environment. It was noted that it is important that the training at the university enables the students to feel like they are part of the national development goals. There is also a need to have more interdisciplinary collaboration. There are initiatives in place to achieve this, for instance, Makerere University; which aims to be a research-led university; is working closely with United Nations Capital Development Fund to put up a multi-disciplinary innovation hub. This will enable students from different disciplines to come together, collaborate and co-create.
- It is also important to note that sustainable innovations can be created by focusing on local problems
- The panel acknowledged the Government's initiatives in this respect including the Innovator's fund and the research innovation fund but also called for more government support.
- In regards to positioning Uganda's innovations for the international market, standards are also very important as they can be trade barriers.
- When it comes to protecting intellectual property in foreign countries, through the African Regional Intellectual Property Office, IP can be registered in over twenty-two African states, and through the World Intellectual Property Organization, over one hundred ninety states.
- Uganda can also learn from the experience of other states that are signatories to the Trade-Related Aspects on Intellectual Property Rights (TRIPs) agreement and how those states have worked within the framework. Using avenues such as the WIPO is equally important. This knowledge can be used and fine-tuned for local issues.
- IP must be embedded in the national conversation.

Challenges:

- Inadequate sensitization or awareness of intellectual property rights.
- Lack of incubation programs and innovation hubs particularly outside of the capital city.
- Lack of prioritization due to conflicting demands. This leads to scattered or meager resources and difficulties in implementation.

Recommendations:

This panel set the tone for the rest of the discussions throughout the day as it made it clear that good laws and policies do not translate into results if they are not effectively harnessed by the end user.

1. Find practical ways to educate people from all demographics about intellectual property- particularly about the importance of registering intellectual property rights.
2. Increase the number of innovation hubs within the country, having at least one in every university.
3. Create and implement Intellectual property strategies and policies in institutions.
4. Foster horizontal technology partnerships and knowledge transfer.
5. Compare notes with other countries that have successfully worked within international trade and development frameworks.
6. Prioritize standards of locally manufactured goods to effectively position them for exportation.

Panel Two

Leveraging Big Data Analytics and Artificial Intelligence in the Formation of Policy and Provision of Public Services.

The second panel of the day discussed the topic: Leveraging Big Data Analytics and Artificial Intelligence in the Formation of Policy and Provision of Public Services.
The panel was chaired by Mr. Emmanuel Mugabi- Manager of Governance and Risk- at the National Information Technology Authority, Uganda (NITA (U)).

The panel comprised Mr. Ivan Mukiibi – a Data Scientist at GIZ Uganda, Ms. Justine Ayebare - Senior economist with the Ministry of Finance, Planning and Economic Development, Mr. Bernard Mukasa- Partner at Ortus Advocates and Dr. Cosmas Mwikirize- Superintendent Industrial Value Chain at the Ministry of Science Technology & Innovation, Office of the President.

Digital transformation brings with it the opportunity to use modern technologies to solve age-old problems. The creation of effective policy and the subsequent implementation of the same greatly depends on verifiable data. The same can be said for the efficient provision of public services.
Under this topic, the panel discussed how the Government can u
tilize data and artificial intelligence to inform legislation and policy and to improve public service delivery. The panel also discussed how the government is currently taking on this initiative, the legal considerations, and the challenges that have been faced.
This panel engaged the audience with an interesting discourse on how big data is used, and its practical implementation in Uganda today.

1. Big data and its relevance to the Government in the formation of policy and provision of public services:

- Big data is large volumes of data including both structured tabular data and unstructured data. Essential to big data are its qualities- volume (the amount of data), velocity (how fast the data can be attained), veracity (how verifiable the data is), and variety (to avoid bias).
- The government already uses data in the formation of policy and planning for the delivery of public services. The majority of this data is held by the Uganda Bureau of Statistics (UBOS). Data is also sourced from other Government institutions and some are sourced from the private sector.
- Whereas the data is available, one of the notable limitations is the rudimentary methods used to analyze that data. This creates a time lag between when the data is collected to when it is used.
- By the time a decision is made based on the data, the characteristics of the problem have changed thus creating inadequate policy and implementation. There is a need for real-time verifiable data. This can be addressed through big data and artificial intelligence.

"Whereas the data is available, one of the notable limitations is the rudimentary methods used to analyze that data".

2. Use of big data in the formation of policy and steps taken so far

The most important thing is not the size of the data, but how granular you can get with the data.- Ivan Mukibi

- The Government has already taken a few steps to employ the use of big data. The Ministry of Finance, Planning, and Economic Development is working closely with UBOS and NITA (U) which is supporting the Ministry with data analytics and data mining tools.
- Additionally, the Ministry of Energy, with support from GIZ is currently using big data analytics in a rural electrification program. The Ministry is setting up mini-grids for solar power in Northern Uganda and the West Nile. Through satellite imagery as a data set, it is possible to determine which areas are the most suitable for setting up these grids.

3. Legal considerations for using big data analytics and artificial intelligence (AI) for the formation of policy:

- Uganda has a strong data protection and privacy legal regime. The law regulates how data should be collected, stored, and disposed of. The Government must comply with this law, bearing in mind the principles of data protection and respecting the rights of data subjects. This also includes the legal provisions on automated decision-making as set out under the Data Protection and Privacy Act.
- The right to privacy as provided for under the Constitution must be respected.
- It is critical that when the government is using AI in collecting data and in the formation of policy, Government must be transparent with how data is used, and how decisions are made. Bias must be weeded out as much as possible.

4. Challenges the government faces in this endeavor:

- The use of big data has several complexities. There are concerns about privacy and cyber security that must be taken into account.
- There is a need for data analysts or scientists who can sort the relevant data.
- Some Government agencies still lack the intrinsic capabilities to effectively use big data and artificial intelligence.

5. How are these challenges being addressed?

- In a bid to improve human capital development, the government is planning to run a program to train 50 data scientists to help the government to make data-driven decisions.
- There is also an initiative to shift the mindset of policymakers by requiring that every proposed policy is backed by empirical evidence. This trickles into planning, budgeting, mid-term evaluation, and post-evaluation of policy implementation. Strong emphasis is being put on mid-term evaluation.

Recommendations

- Strengthening human capital development through training and education. This may include working with the Ministry of Education to ensure that students are attaining digital skills and literacy.
- Building the technological capacity of government institutions to enable them to effectively use big data and artificial intelligence in the creation of policy.
- Evoking a mindset shift in the policymakers to appreciate the creation of evidence-backed policies.

Panel Three

On the Road to Digital Transformation: Is Uganda Ready?

Under this topic, the panel discussed the steps that have been taken in digitizing Uganda. The panel also discussed the gaps in implementing these policies and identified ways in which these challenges could be rectified.

The chair of the panel was Ms. Kananu Mutea- Partner at Gikera & Vadgama Advocates, Kenya.
The illustrious panel consisted of Mr. Silas Ngabirano, Commissioner at the MoICT&NG, Mr. Chris Lukolyo- digital country lead at the United Nations Capital Development Fund (UNCDF), Ms. Christine Mugimba- Director of ICT and Research at Uganda Communications Commission (UCC) and Mr. Bart Cornille, Digital for Development expert at Enabel.

Drawing comparisons with Kenya's digital transformation journey, the chair of the panel engaged the panelists on several topics critical to achieving Uganda's aspirations on digital transformation. It was found that while Uganda has a good legal, policy, and regulatory framework, several challenges are constraining effective digital transformation in the country.

1. The digital transformation program:

The panel discussion began with an overview of the digital transformation program under the NDP III. Unlike NDP I and II, the NDP III exhaustively addresses digital transformation. Under this program, the government acknowledges ICT as the fulcrum of development. The main purpose of the digital transformation program is to increase access to and the usage of ICT (Information Communications and Technology) in the country. The digital transformation program has five objectives-

a)Increase the national ICT infrastructure coverage;
b)Enhance the usage of ICT in national development and service delivery;
c)Promote ICT research, innovation, and commercialization of indigenous knowledge products;
d)Increase the ICT human resource capital; and
e)Strengthen the policy, legal and regulatory framework.

2. Government's actions toward achieving the objectives of the Digital Transformation Program:

- Under the objective of Increasing the national ICT infrastructure coverage, the government plans to extend broadband ICT infrastructure coverage countrywide in partnership with the private sector and all government entities and, to implement last-mile connectivity. It also plans to leverage existing infrastructure by government and private sector players.
- The National Broadband Policy was set up in 2018. The objectives of the broadband policy include harmonizing and regulating the planning and development of Broadband infrastructure and reforming the licensing framework to improve the quality of service in the industry and to meet the overall national policy goals and aspirations.

- Under this Policy, it was proposed that an operator who seeks to national operator license must be able to cover the entire geographical area of Uganda. There is also mention of cross-sector infrastructure sharing among other interventions.
- Through the liberalization of the ICT sector, private-sector service providers have played an important role in increasing the levels of internet connectivity in the country. This has been complemented by the development and rollout of the National Backbone Infrastructure (NBI) Optic Fiber network.
- Regarding the objective to enhance the usage of ICT in national development and service delivery, the panel addressed the concerns around digital inclusion and financial literacy which are at the core of effective digital transformation. The panelists noted that there is a skill gap that has to be addressed. The lack of digital skills contributes to the low levels of digital inclusion in the country as they encumber the usage of ICT and digital solutions.
- At a government level, interventions such as the Rural Communications Development Fund (RCDF) have enabled the government to conduct digital literacy training, create WiFi hotspots across the country, a provide persons with disabilities with assistive technologies.
- As a development partner, UNCDF is working closely with Government to incorporate digital education into traditional curricula.
- Enabel which is also a development partner supports Uganda to implement priorities under the National Development Plan and the United Nations' 2030 agenda for sustainable development. The principles in its Digital for Development (D4D) strategic notes 2016 include-leave no one behind, digital inclusion, and the use of big data. One of the key priority areas which Enabel has focused on in Uganda is the education sector. The entity works closely with the Ministry of Education and Sports to equip educational institutions with the capacity to deliver quality education. This includes the use of digital technologies and e-learning materials.
- The AU-EU D4D Hub is currently supporting the transformation of postal offices in Uganda to enable the use of e-government services in last-mile areas. These postal offices will also serve as training centers to equip young and elderly people with digital skills.
- The panel mentioned the need not only to increase digital literacy but the access and use of digital technologies. The Government is currently running a proof of concept under which it has distributed over one thousand solar-powered tablets to low-income earners in certain areas of the country.
- Concerning policy, regulation, and legislation to foster the growth of the digital economy, UNCDF created a policy tool that helps governments to set their digital transformation priorities – The Inclusive Digital Economy Scorecard. This tool helps the Government to determine which priorities to set in the digital transformation agenda.
- The Inclusive Digital Economy Scorecard report revealed that Uganda appears to have a strong digital policy and regulatory environment (77%).
- The panelists noted the importance to acclimatize with global best practices. Uganda, through the Ministry of ICT and National Guidance, was recently re-elected to be a member of the International Telecommunications Union. This is an UN-specialized agency that sets the agenda and defines global standards for matters related to information and communication technologies. A seat on the council allows Uganda to contribute to and learn about telecommunication policy and strategy that responds to the dynamic, rapidly changing telecommunications environment.

3. Consumer protection in the telecommunications sector:

- There are standards on the quality that the regulator requires of licensees
- Through Type Approval, the Uganda Communications Commission can ensure that communication equipment that is to be sold, distributed, or imported into the country meets the minimum technical requirements set by the commission.
- The Commission requires applicants' and licensees' data privacy policies.
- Public sensitization campaigns

4. Challenges:

- The panelists noted that low levels of digital literacy remain a challenge. This leads to low levels of ICT usage and human resource. It also leads to low levels of digital inclusion. This also directly impacts the implementation of laws and policies that are the bedrock of digital transformation
- It was also noted that there are low levels of awareness of the potential of ICT among the vast population, with most only using mobile handsets for mobile money and social media.
- The ICT sector contributes over 3 % of the country's GDP but is heavily taxed.
- Underfunding of the ICT sector.
- Lack of complementary infrastructure. Without stable electricity, people cannot use digital technologies.
- Limited research in the ICT sector. This affects the capacity to innovate and the number of viable local solutions.
- Cost of internet services and access to digital services.

5. Recommendations

- Implementation of policy and legislation is undermined by varying aspects such as digital literacy, cost, poor infrastructure, and cost. Priority should be on creating policies that foster inclusivity.
- Awareness campaigns must be specifically tailored to each demographic in Uganda.
- Digital education for the young and elderly.
- Efforts should be put into human capital development. It is important to train a workforce that can seize the employment opportunities available in the ICT sector.
- Support of local viable solutions. Notably, almost all e-government services are provided by local service providers. However, there is a further need to support viable business models, especially those that address the challenges of the digital divide.
- Peer awareness between government agencies to avoid laws and policies that stifle the sector. There is a need for players in the ecosystem of policy and law creation to understand digital transformation and buy into the idea. For instance, heavy taxation on the sector is a prevalent barrier. Peer awareness will be aimed at educating other government institutions on how the sector operates and how it can be supported.
- Sensitization of the public.

BREAKOUT SESSION ONE

Closing the digital divide:
Expectation vs Reality:

The panel was chaired by Mr. Chris Lukolyo – Digital Country lead, United Nations Capital Development Fund.

This panel comprised Ms. Diana Akullu Wanyama-Chairperson of the Digital Frontiers Association, Mr. Melle Tiel Groenestege – Director of Digital Inclusion, Policy and Advocacy, GSMA, Ms. Evelyn Namara – Alliance for Affordable Internet, and Mr. Shem Dungu – Manager of Digital Banking, Equity Bank Uganda.

The panel discussed the challenges of implementing policies aimed at increasing digital inclusion in Uganda and suggested ways in which these challenges could be addressed.

1. Acquisition of digital and financial skills in a bid to close the digital divide.

- The Digital Frontiers Association together with the Digital Frontiers Institute has embarked on skilling youth in a bid to close the current skills gap through courses to skill individuals on digital finance. However, there are high levels of illiteracy, especially in rural areas where there is a majority that require to be included financially in the digital ecosystem. It is important to note that literacy is split into three categories, these include;

a) Education literacy: This being the basic level of literacy, neither the private sector nor the associations may single-handedly be able to close the gap. To effectively do this, there needs to be a close collaboration with the government to address this issue.

b) Financial Literacy: Focusing on how to handle finances generally.
c) Digital literacy: Making use of digital equipment. Understanding how to send Mobile Money and how to save on the phone.

- Educating individuals in different literacy is a short-term solution and may become insufficient in the long run, therefore, there is a requirement to focus on the long-term plan to systematically address those gaps in education, financial and digital skills in order to close the digital divide in the country.
- It is important to ascertain how to incorporate these skills into the curriculum to enhance basic literacy as opposed to individually looking at education, financial and digital literacy

2. Designing training that is easily accessible to the underserved community:

- Delivering courses online does not fit the underserved because basic literacy is lacking. Where courses are delivered online, it raises a requirement for a smartphone and mobile internet where the trainer then falls short of the aim of the training.

- There is a need to segment information delivery, specially crafted for the underserved in their different categories through physical discussions. Once this is worked upon, it shall become a stepping stone to bridging the digital gap.

3. Enabling Infrastructure:

- The panelists noted the criticality of infrastructure to digital inclusion. Policymakers have mandated that Mobile Network Operators (MNOs) have coverage across the country. However, there are parts of the country with no signal and with little to no infrastructure. The panelists dissected the reasons why Uganda is failing to reach those goals in order to achieve inclusive digitalization.
- It is pertinent to address the policies in place and the challenges that limit Uganda from achieving digital inclusion. There is a need to focus on implementation to gain a better understanding of where to spend limited resources while creating the greatest impact. This is not just a question for Uganda, it is a question that relates to a number of countries.
- Looking at infrastructure in Uganda, there has been progress within the last 5 years. Collectively all MNOs in Uganda have invested approx. UGX.150,000,000 (Uganda Shillings One Hundred and Fifty Million) in infrastructure which is very substantial, especially when compared to a period five years ago when the investment was UGX.100,000,000 (Uganda Shillings One Hundred Million). This shows a push to continue infrastructure investments not only to expand connectivity to far-reaching areas but to also improve the connectivity that is there.
- The objective should be for all to have a meaningful connection with an internet experience that is satisfying, enriching, productive, and affordable in price. This however ought to be balanced with investments and the need to increase the average revenue per user.
- It is pertinent that the policy environment makes sure that it is most efficient for telecom operators on the market to be able to invest as productively as possible.
- There are a couple of things that can happen both in terms of innovation and new types of technologies. Some of the Global System for Mobile Communications Association's (GSMA) members are innovating with new technologies that can be implemented in rural areas. GSMA has supported and collaborated with MTN Uganda to successfully deploy mobile network sites in North East Uganda, implementing rural connectivity solution that is much cheaper than the existing infrastructure. This is a solution that is impacting over 30,000 people in the North and it shows that collaboration with startups can help come up with new solutions.
- From a government perspective, it's about creating an environment focusing on different aspects such as how spectrum is allocated. For instance, creating enough spectrum of 700-800 spectrum bands would facilitate the extension of connectivity to rural areas. It is not yet allocated in Uganda. This is a consideration to have in mind together with the taxation environment and looking at the universal service fund, particularly focusing on how to organize the projects that are being implemented by the universal service fund and knowing who is contributing to this fund.

4. The role of MNOs in closing the Digital Divide:

- As a mobile operator, GMSA has set up the required infrastructure. The issue lies in the lack of adoption. In Uganda, there is 90% coverage and only 23% of the population is using the infrastructure. This means there are limited digital skills, unaffordable handsets, and a requirement for public-private partnerships and or government device subsidies.

- The signing of the Memorandum of Understanding between GSMA and UNCDF is to see how best to move the MNO's customer base that is connected to mobile subscription up the value chain and increase digital inclusion. It also seeks to address how to reach the part of the population that has never had access to mobile internet. This requires skills training, creating, and preparing the market for a product before the product is brought into the market.

- MTN has implemented the GSMA mobile internet skills training toolkit which focuses on 12 modules on the most popular applications, mobile settings on online safety, and skilling in employment which is important to create the digital ecosystem. Employees that are able to code and develop new innovations and products have already been acquired.

- Globally GSMA has been successful within the market and achieved about 50 million people, which indicates it can scale especially in the way the individuals are reached. Mobile operators have tried to link a commercial incentive for agents to train users, through 2-3 minutes training sessions made to agents and similarly agents to customers. The data uptake of the users that have been trained is high and, in some countries, it is an increase of 400% to 500% which creates an incentive for agents.

- All these initiatives should work through the public and private sectors with benefit to both the mobile consumer and the mobile operator.

5. Affordability:

- The panel noted that whereas feature phones and USSD sessions have many services to offer, much more value can be derived from smartphones with internet access and connectivity. This includes access to essential services. The panel examined the part that both policymakers and the private sector can play in addressing the affordability of internet services and smartphones in Uganda.
- The panelists expounded on the importance of meaningful internet usage in this regard, particularly in light of the surveys and reports released by Ministries showing that internet usage in Uganda has substantially increased over the past few years.
- People living in rural areas with semi-basic smartphones may use social media applications such as WhatsApp from time to time. This cannot be compared to those living in cities with access to faster internet and an array of applications such as streaming services.
- This shows that there is a disparity in what is considered as effective internet usage in Uganda. Research from the Alliance for Affordable internet looks at meaningful connectivity with four indicators:

1. Regular internet use,
2. Use of appropriate gadgets. Moving away from feature phones and USSD,
3. Enough data; and,
4. Faster connection

- Looking at the four indicators, one must also look at where Uganda needs to be in the digital age. How many people can afford all four different components and say they are having meaningful connectivity? It is very expensive, especially because of digital taxation, including, the high cost of smartphones. A policy brief on digital taxation in Uganda issued by Cipesa (Policy Brief: Taxing Ugandan Citizens Out Of The Digital Society https://cipesa.org/2022/04/policy-brief-taxing-ugandan-citizens-out-of-the-digital-society/)details the extent to which digital taxation affects affordably of internet services in Uganda.
- There is a lot to do from a policy perspective and similarly, private-public partnerships could be a solution to mending this gap.

6. How private-public partnerships can be leveraged to bring down the cost of access and delivery:

Use of subsea cables, community networks, and policy creation. The government has a role to play in creating an environment that is favorable for data access and enables community networks to thrive.

Uganda can pick lessons from what other countries are doing in terms of creating an environment that encourages manufacturing. For instance, the Rwandan-based Mara Phones produce high-quality. These are affordable smartphones designed to promote digital inclusion. Ashish Thakkar, founder of Mara phones says that the biggest motivation behind the manufacture of the phones was the belief that the manufacture of quality, affordable smartphones was the real way to create a massive positive social impact and promote financial inclusion on the continent.

Uganda should encourage local manufacturing, whether locally or within the continent to reduce the cost of production and equally reduce the cost of purchase for the consumer.

7. How financial institutions are leveraging technology to close the digital divide and what challenges are being faced:

- Financial literacy in Uganda is at about 19%, digital inclusion is at about 20% and knowledge awareness is at about 60%. Equity Bank anchors on six pillars one of which is financial literacy and financial inclusion. This has been done through Agency banking and this was to demystify banking as traditionally known.
- Currently, Equity bank has approximately 2000 banking agents across the country and has made it easier access to banking through USSD code, therefore eliminating the requirement for the physical creation of accounts and transactions.
- For traders, SMEs and MSMEs, Equity Bank has created a product termed, Pay with Equity, which allows its customers to receive payment directly to their merchant ID code or their trading Number.
- In regards to how financial institutions are playing a role in financing innovators that are extending services to the last mile communities, and plugging them into the core banking system or assisting in digital setup, at Equity Bank, there are scalable applications interfaces for startups. With over one million customers, this allows the startups to make an application to plug into or integrate with Equity's API, giving the innovators access to all Equity bank customers with their services.
- Secondly, through Equity bank's partner, Mastercard has developed the "Young Africa works" initiative, which comprises donations through Mastercard to enhance and equip start-ups that have innovations in Uganda. Through this initiative, Equity Bank is willing to provide such financing.
- The banks encourage innovators to create new ideas that evolve and can be used as collateral for loans, churn these loans into innovation and further develop these innovations.

8. Recommendations:

- Legislators need to be more intentional with what they include in the laws and policies such as the National Broadband policy 2018. There is a need to revise these laws and add specific indicators that speak to what the current issues are. Create targets that can measure the extent of applicability of the laws and policies.
- Create very strong implementation plans following the measures for digital skilling.
- Regulators and policymakers vis-à-vis the financial technology space: Policy-makers in the digital finance ecosystem are advised to train and skill regulators in financial technology and digital finance. This allows the regulators to better understand the sector and the businesses which they regulate in order to effectively supervise, offer support and counter any risks and challenges these businesses face.
- Multinationals and Development partners should support the government to achieve the goals set by the laws by setting up leadership courses and institutions to have the local investors learn how such multinational companies have been able to have these businesses remain afloat.

BREAKOUT SESSION TWO

E-Government as a path to digital transformation in Uganda.

The panel was chaired by Ms. Marcella Karekye – Director of the Government Citizen Interaction Centre.

This panel comprised Hon Justice Geoffrey Kiryabwire, - Justice of the Court of Appeal, Dr. Ezra Sebwufu – the Deputy Director Revenue collection KCCA, Rev. Canon Duncan Mugumya – Commissioner for physical planning and sports, Ministry of Education and Sports, Dr. Hatwib Mugasa – Executive Director NITA (U) and Ms. Rosemary Kisembo – Executive Director NIRA.

This panel discussed the digital transformation program, focusing on the government's aim to provide 80% of its services online. The panel discussed the initiatives it has taken in employing the use of ICT in service delivery and the challenges encountered.

EDUCATION

A. The steps the Ministry of Education is taking to equip students with basic digital skills and enable them to participate in a digitally enabled Uganda:

- Education systems and institutions have been experiencing major changes under the influence of structural shifts in the global, economic, social, and political foundations underscored by rapid shifts in digital technologies. The UN Sustainable Development Goals adopted in 2015, committed the global development community to 17 interrelated goals and 169 indicators focused on improving the quality of life for all.
- Goal 9 of the UN Sustainable Development Goals, deals with growing an ICT infrastructure and increasing access to connected digital devices, enabling greater flexibility in when, what, when, how, and where people learn. Enabling this digital infrastructure has created room for increased research in academia.
- During the Covid 19 pandemic and the presidential-directed lockdown, ICT managed to enable quality learning and teaching through the maintenance of connection within the academic syllabus by having e-learning through television programs and the use of internet classes.
- ICT can significantly improve the efficiency in the administration and management of educational institutions and systems at local, regional, and national levels and the ability to catalyze new ways of learning and improve the proficiencies of learners and teachers. It can further enable redress equity in education in the face of wide disparities. However, this potential can only be reached under the right conditions and these require strong leadership to engage with the complexities that accompany whole system transformations that ICT tends to catalyze.

- **The digital Agenda in the Ministry of Education and Sports:**

The Education digital agenda strategy 2021/2025, provides the rationale and action plan for integrating ICT into teaching, learning, assessment, sports, and administration. This strategy builds on other existing strategies and plans built by other complementary sectors that include the aspirations of ICT in education and sports.

- The Education digital agenda strategy 2021/2025 is aligned with the NDP II and NDP III goals which advocate for human capital development in the sector, leveraging on the ICT use and penetration resulting in improved quality learning outcomes. In developing a sector-wide strategy an evidence-based and participatory approach was used to ensure all aspirations and needs of all key stakeholders in the education sectors were catered for.
- The objectives included;

1. To increase the coverage and access to the ICT infrastructural connectivity in the education sector. This includes Computer labs.
2. To develop an integrated direction in which ICT shall facilitate teaching, learning, and management of service delivery in the education sector.
3. Streamline, review, rationalize, and harmonize the fragmented ICT initiatives.
4. Promote ICT in research and innovation and commercialization of indigenous products.
5. To increase the ICT human resource capacity numbers, orientation, specialty, and quality in the education sector.
6. Effectively use and encourage the adoption of mature and emerging technologies.
7. To leverage the utilization of ICT for the continuance of learning in case of disruptions, emergencies, or disasters in the education system.

- The Ministry has also introduced Teacher Management Information Systems (TMIS)- a system aimed at streamlining the delivery of government services to members of the teaching profession in Uganda. It's a simple user-friendly approach to supporting harmonized and timely access to teacher information at all administrative levels of the Ministry of education and associated agencies at national, district, and regional institutional levels. TMIS provides accurate information on the demand of teachers at primary and secondary levels, therefore, allowing the Ministry to make appropriate predictions and plans for training and recruitment of needed teaching resources.
- The main objective of TMIS was to solve the problem of disjointed teacher records across all sectors of government and the education and sports Ministry.
- Similarly, the Ministry has introduced the integrated inspection system (IIS) to ensure that teachers and administrators attend to their duties in schools, reduce paperwork and create use of e-reports.

Challenges being faced by the Ministry;

1. High cost of equipment to cover the entire nation.
2. High cost of internet connection.
3. High cost of construction and rehabilitation of computer laboratories.
4. High cost of training of teachers, power sources, software, subscription of data services, maintenance and repair of equipment.
5. Retooling of teachers.

Recommendations for the Ministry;

1. Procurement of ICT equipment in bulk and reducing the overall cost of procurement.
2. Government negotiating with the internet service providers to reduce the cost of the internet and provide proposed education rates.
3. Government should negotiate with software providers for favorable rates.
4. Government should put up structures for computer laboratories in schools.
5. Government should procure firms to undertake the repair of ICT equipment in schools.
6. Train and retool teachers in regional centers.
7. Government should provide alternative power centers to the different education centers.

Best practices;

1. Creativity and collaborations – creating the right mindset and shared understanding.
2. Establish education digital centers of excellence.
3. Putting policies and laws in place to help us move into a digitally transformed education system in Uganda.

B. NATIONAL INFORMATION TECHNOLOGY AUTHORITY (NITA)

A brief about the e-government infrastructure project by the National Information Technology Authority (NITA) Uganda.

- The e-government infrastructure project is by NITA (U) referred to as the National Backbone infrastructure and e-government. It focuses on both hardware, software, and all other support functions that enable e-government to exist.
- NITA(U) is currently at 4172 km of fiber in highway backbone infrastructure, a fiber that has been rolled out to 60 districts all over the country and to the last-mile users. Approximately 2000 government offices have been connected to the national backbone.
- NITA (U) has hosted 190 government critical systems at the national data center for the e-services and also provides a data recovery center at no cost to the government which subsidizes the cost of what would ordinarily cost the government approximately USD. 500,000 per year in terms of licenses, hosting, co-locating, and cooling. NITA has reduced that cost to only USD.14,000 per year in maintenance. NITA provides security through the national computer emergency response team working 24/7 in collaboration with both the private and public sectors.
-
- NITA recognizes that there is high-capacity fiber in Uganda but the internet received from the undersea cable is under-utilized. There is a need to increase internet purchases from the undersea cable. This will have a bearing on the cost of the internet because the more capacity Uganda has, the higher the number of users. However, costs will remain an issue if there is low usage of the internet. Regardless of whether there is a high capacity of fiber, if there is no increase in usage then the price remains high.
- Another solution to reduce the cost of the internet would be to build internal capacity in terms of data services. Currently, Uganda is using international traffic internet because most of the internet systems are crafted internationally, therefore, if Uganda had some of these systems such as Twitter, Facebook, or Instagram within the country, then the cost of the internet would gradually lower.
- The digital governance of Uganda from NITA's perspective aims to digitize 80% of Uganda's government services and have 60% of them accessed by citizens at all times.
- With most government institutions having individual data centers, collecting similar information from the same citizens, NITA has created a Ugandan hub to collect the information that is being collected in silos.

Security strategy in place for data stored at the National Datacenter.

- NITA has a national computer emergency response team that operates together with other SATs for instance the UCC SAT, Finance SAT, Uganda Police SAT, and other private SATs.
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- NITA is at the governance level of the National Security information group.
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- NITA has drafted a framework guideline for IT companies and other private entities on how to use devices in the most secure manner.

C. KAMPALA CAPITAL CITY AUTHORITY (KCCA)

ECT- System to facilitate revenue collection and administration and challenges faced in implementing the system by Kampala Capital City Authority (KCCA).

- This program started in 2014 to create a collecting point for revenue in Uganda that at the time had been scattered in different avenues such as banks. This method made it difficult for the Authority to reconcile.

Challenges include;

1. Development of the system while using the system such that KCCA does not have prolonged downtime.
2. Need for capacity development for system development teams.
3. Change management to sensitize the citizens on how to use the systems.

KCCA Planned initiatives in creating a smart city:

- Through a contact center, KCCA has managed to assist clients to make queries and access social media platforms to seek current information relating to the services offered.
- Deployment of a pilot traffic control center to control traffic within Uganda which when successful should result in the construction of a centralized traffic control center.
- Property management, for example, the kasasilo (rubbish) stages.
- Kampala's emergence of a digital transport platform for emergency situations like the need for an ambulance, fire brigade, etc
- Support of social inclusion through digital technology.
- Support of open data exchange with other institutions and agencies.
- Smart lighting initiatives.
- Smart permit – this is meant to enable developers in the city to submit their applications online and instant approvals.

D. JUDICIARY

The Role of ICT in transforming the Judiciary in Uganda.

- The judiciary has made and is still making the shift from the manual to the electronic filing system through the use and implementation of the Electronic Court Case Management Information System (ECCMIS).

- The ECCMIS system encompasses eight components, these include;

1. E- filing, whose filing deadline has been extended to one minute before midnight on the last day of filing as opposed to the manual filing that required filing before 5 pm.
2. E- Notification, this allows the parties to receive instant notification on the matter and its progress.
3. Electronic payments for filing court documents.
4. On-time support.
5. Integration with e-government having the ability to integrate with other government institutions.
6. Intelligent case allocation automatically allocates a matter to a judge according to their workload.
7. Reporting, analytics, and business intelligence visualize system information with interactive data virtualization, report lists, and charts.
8. Creation of a case docket, making it possible to access the case file to all those capable to accesses the ECCMIS system eliminating loss of physical files.

- ECCMIS has greatly benefitted the judiciary, by making issues of filing cases quick and cost-effective, allowing e-court rooms currently set at commercial court to enable parties off-site to access justice. It has enabled integration with Government, allowing interface with other Government institutions and agencies such as DPP, URA, NIRA, Uganda Prisons Services, etc.

- Other than ECCMIS the judiciary has other digital platforms from which information can be disseminated, for example;

1. The judiciary website that has regular updates at www.judicature.go.ug
2. The Uganda Legal Information Institute (ULII) provides all important decisions freely available to the legal fraternity and the public from all courts of judicature on www.Ulii.org
3. E-Notice Boards.

- **Expectations;**

1. The judiciary expects to have Interactive Voice Recognition (IVR) over the telephone, which should allow one to follow up on a matter on phone by following the prompts.
2. Self-Service Information Kiosks shall provide information that would be found in the court registry.
3. Artificial Intelligence Judges.

- **Challenges:**

1. Small budget allocation yet ICT is expensive.
2. Sequencing. Prioritization.
3. Timing.
4. Different centers push technology which needs to be harmonized for cost-effectiveness.
5. Bandwidth.
6. Quality of Court Buildings.

E. NATIONAL IDENTIFICATION AND REGISTRATION AUTHORITY

How NIRA has digitally transformed its services as Uganda's Next Generation ID- with Digital Capability Identity:

- The UN through the UN Sustainable Development Goal 16.9 is seeking to have everyone digitally identified across the globe.
- NIRA has 9 statutory roles that include the creation, management, and operation of the National Register, registration of citizens, non-citizens, births, and deaths, assigning of unique identification numbers to everyone appearing on the register, issue Identification cards, harmonize and collating information from other data, verify ad authenticate information relating to registration, and ensuring preservation and protection of all information and data collected.
- NIRA has issued approximately 25.9 million identification numbers, which account for 62% of the total population, issued with 19 million cards printed, interconnected with 67 institutions, and receives 70 million searches a month.

Benefits of the improved Digital ID:

- The digital ID is generated against a National Identity Number (NIN)by digital Certificate using a secure mathematical algorithm issued by a trusted authorized authority that can safeguard the integrity security and privacy of the credentials.
- The digital ID is unique, portable, and can be verified anywhere in the world using mobile and online services with a high level of assurance.
- The Improved ID creates ease in verification will enhance business and create assurance in the financial sector of Uganda.
- Enhances the increased use of smartphones and where possible will require options to access the same services via USSD.

BREAKOUT SESSION THREE

Commercial Diplomacy: Uganda's achievements and lessons learned

The panel was chaired by Fabrice Brad Rulinda – Mayor of Entebbe Municipal Council.

This panel comprised H.E Dr. Aziz Ponary Mlima – High Commissioner of the United Republic of Tanzania to Uganda, and H.E Eli Kamuhangi Kafeero – former ambassador to Belgium and currently the director for regional, international, and economic affairs at the Ministry of Foreign Affairs.

Uganda has over 32 missions abroad that carry out the function of diplomacy. The panel examines the success Uganda has had in this regard, its shortfalls, and the lessons that can be learned from other jurisdictions.

Commercial diplomacy refers to all diplomatic activities done to promote national businesses in foreign countries. It's designed to influence foreign government policies and decisions that affect global trade and investment.

1. How Uganda has promoted its national business to foreign countries:

This is achieved through economic diplomacy and Uganda's missions in foreign countries. The missions promote Uganda's products such as the country's agricultural products. The Missions also promote the country as a good tourism and investment destination. Uganda is also part of free trade zones (including the Africa Continental Free Trade Area) and engages in negotiations on forums such as the World Trade Organization (WTO).

2. How Tanzania promoted its national business to Uganda:

- This was achieved through the joint business forum (JBF) that started in 2019 with Ambassador Richard Kabonero while still Uganda's High Commissioner to Tanzania. This forum brings together the private sector of Uganda and Tanzania created with the business community of Uganda in Tanzania together with the two heads of state. At the time pertinent issues to the private sector and challenges faced were discussed. Solutions to forge a way forward were made.
- There is the joint permanent commission where bilateral Government discussions are made on issues ranging from political to economic issues based on the joint business forum. The actions by the two governments were to reduce some of the non-tariff barriers that the private sector had been experiencing such as the road user fees for Ugandan truck drivers who were taking cargo from the port of Dar salaam to Uganda.
- The JBF further addressed the issue of commercial diplomacy in November 2021 on the 2nd JBF and a request was made that Tanzania establish a Tanzania Portal Office in Uganda which currently exists with a representative from Tanzania now in Uganda.

3. Aspects that influence commercial diplomacy policy:

- Both countries have to have a cordial relationship characterized by peace and stability which in turn makes it easy to conduct trade across countries. To influence commercial diplomacy there is an expectation of three components- economic and political stability and security.

4. Roles regional blocks play in facilitating commercial diplomacy and how the integration of the East African community has been important in this regard:

- Key components to improve business and trade among African countries include the harmonization of laws and policies in terms of trade and commerce which helps increase the volumes of trade between states. For example, the harmonization of laws of the East African Community (EAC) and the existence of the regional block like the Southern African Development Community (SADC), and similarly harmonization of the policies of SADC, EAC and the laws of Economic Community of West African States (ECOWAS).
- It becomes easier to have full harmonization of the African continental free trade area which in turn makes trade easier without conflict in laws and policies.

Challenges in Implementation and how they can be addressed:

- The existing challenge is the lack of Pan-Africanism. Failure to increase the volume of trade among the African countries has caused a hindrance in business growth compared to the intra-European trade.
- Africa has poor infrastructure both socially and physically and the laws and policies created do not apply or work in unison. The aim is to boost trade through the development of infrastructure and revisiting these policies and laws.
- Similarly, there is a need for investment treaties that account for and promote proper investment in favor of the national interest. This is a call to the legislature to look at the clauses within these treaties and ensure that these clauses are not limiting investment or making it difficult to smoothly transact and invest.
- Regional peace-led strategy and stability in African states attract tourists for economic investment within the different countries. Economic diplomacy, however, requires Ugandan representatives to seek to mobilize resources for economic development through negotiations with development partners depending on the strategies the development partners have set.

DAY TWO...

Opening Remarks:

Opening Remarks From Edgar Tabaro
Edgar Tabaro, a partner at KTA Advocates gave the opening remarks for day two. He noted that the KTA promise has always been to take the lead when it comes to Tech and Intellectual Property, and he emphasized the firm's commitment to mainstream intellectual property in Uganda's National Development plans.

He defined Intellectual property as creations of the mind. Drawing a comparison between the use of IP in the USA and Uganda, he pointed out that USA's biggest earnings come from music, technology, and movies – all creations of the mind whereas Uganda has failed to mainstream intellectual property in its development processes, nor treat intellectual property as a commodity.

KTA Advocates has had the advantage of being one of those law firms in the region that have registered Ugandan-owned patents/utility models such as the JANZI, the first musical instrument to get utility model protection in Uganda.

NSSF has a young innovator incubator fund and through a partnership, KTA Advocates has provided pro bono or free legal services to young innovators in the program. He opined that the knowledge/ creative economy needs to be at the pedestal of our development processes.

He concluded by saying that creations of the mind do not require much capital. He paid homage to the 1945 document - 'Science, the Endless Frontier' written by Dr. Vannevar Bush which he referred to as the most successful policy document that has ever been authored and implemented by the United States of America, it is when research and development were brought together.

Key Note Address

The African Continental Free Trade Area and the Protocol of Intellectual Property Rights"

The keynote address for day two was delivered by Mrs. Emily Njeri Mburu Ndoria, Director of Trade in services Investment, Intellectual Property Rights, and Digital Trade at the African Continental Free Trade Area (AfCFTA) Secretariat, on behalf of H.E Wamkele Kebetswe Mene, Secretary General of the African Continental Free Trade Area Secretariat.

The address discussed the topic **'The African Continental Free Trade Area and the Protocol of Intellectual Property Rights.**

"...the protocol establishes a continental legal framework that will enable African countries to nuance their national IP framework with a broader perspective required by the AfCFTA's objective for enhanced inter-African trade."

Mrs. Njeri began by emphasizing the importance of intellectual property rights and digital trade to unlock the continent's potential and promote an inclusive and robust digital economy in Africa.

She then gave an overview of the mandate of the AfCFTA. The agreement establishing the AfCFTA was adopted by the African Union on 21st March 2018 in Kigali Rwanda. So far, fifty-four out of the fifty-five members of the African Union have signed the agreement. Only Eritrea has not signed. The AfCFTA agreement entered into force on the 30th of May 2019 and today, it has 44 ratifications.

The Secretariat has begun an initiative called the Guided Trade Initiative that is meant to support member states to trade using the instruments of the AfCFTA. This was launched on 7th October 2022 and preparations are still ongoing for commercially meaningful trade using the instruments of the AfCFTA. Uganda is one of the countries under the Guided Trade Initiative.

The AfCFTA agreement contains a number of protocols including protocols on trading goods and services, intellectual property rights, and digital trade.

The draft protocol on Intellectual Property Rights (IPR) has been developed and discussed extensively by AfCFTA State and Non-State parties. It is under consideration by the Council of Ministers and is expected to be adopted by the assembly of heads of state and government in the extraordinary summit that is to be held in Niger in November 2022.

This protocol aims to create an enabling environment for IP creation, protection, administration, and enforcement which will stimulate innovation and competitiveness in the African business sector. For the first time on the African continent, there shall be a continental-wide intellectual property regime under the AfCFTA framework.

The AfCFTA protocol on IPR is designed to incentivize young people, women entrepreneurs, SMEs, and innovators in the formal and informal sectors and by so doing, improve the quality of goods and services that can stimulate development.

She further stated that the potential for using IP as a driver for Africa's economic growth lies in several aspects such as geographical indications, Traditional Knowledge, Traditional Cultural Expressions, and genetic resources. The AfCFTA protocol on IPR provides a generous regime for the protection of these IPRs and other categories of IPR recognized internationally such as copyright, patents, trademarks, and plant varieties. In fact, the AfCFTA protocol on IPR builds on the extensive and well-entrenched IP international regime and national legal framework. More importantly, the protocol establishes a continental legal framework that will enable African countries to nuance their national IP framework with a broader perspective required by the AfCFTA's objective for enhanced inter-African trade.

These elements as embedded in the protocol, provide African countries with new opportunities to leverage innovations and technologies to fast-track inclusive and robust digital economies.

Furthermore, the protocol includes innovative provisions to deepen regional cooperation and promote robust IPR enforcement practices.

Digital trade is key to driving economic growth, creating employment opportunities, and promoting digital inclusion in the fourth industrial revolution (4IR) era. Digital trade is also an integral part of the AfCFTA and thus, work to negotiate and develop a protocol on digital trade is underway. The AfCFTA protocol on digital trade will address the necessities in technology development and technology transfer as drivers to an inclusive and robust digital economy. In addition, the protocol on digital trade will address key elements for the 4IR including 3D printing, Internet of Things (IoT), Artificial intelligence (AI), digital infrastructure, and other emerging technologies.

The potential in leveraging digital trade as a driver for the African economy lies in a wider customer base and providing financial solutions and services to Africa's unbanked population.

When we combine the work and the elements under the protocols on digital trade and IPR, this can help us expand exports into new and innovative areas of comparative advantage, bringing benefits of cross-border trade to our micro small, and medium-sized firms.

Equally important is the need for effective dispute settlement mechanisms that will enforce and protect IPR. The AfCFTA establishes a dispute settlement mechanism that deals with the resolution of any disputes arising from the AfCFTA agreement and its legal instruments. The rules and procedures governing this dispute mechanism are elaborated in the AfCFTA protocol on rules and procedures for the settlement of disputes.

The procedural and substantive failures around IP issues have contributed to a backlash against the trade agreements. Concerns initially arose during the negotiation of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs Agreement) and these heavily favored the interests of those in developed countries. IP issues were also among those that generated a passion for the Trans-Pacific Partnership Agreement, especially those relating to digital and cultural policies and medical patents.

The protocol of IPR offers an opportunity for the African governments to respond to such issues including access to pharmaceutical products and services as seen during the Covid-19 pandemic.

In the post-pandemic world, therefore, reinforcing access to pharmaceutical products and health services in Africa is no longer an option but should be a key element in our strategy to build the Africa we want.

The AfCFTA is also exploring the option of establishing an AfCFTA IP office under the protocol on IPR. The office will, among other things, assist state parties and their IP offices and work with existing regional IP offices in the promotion and protection of IPR across the continent. It will also provide technical assistance and capacity building for the promotion and protection of IP.

Speaker Sessions

Speaker Session One

The first speaker session of the day was hosted by Mr. Patrick Ayota, the deputy managing pater of the National Social Security Fund. The session addressed ' Access to Funding within the Innovation Eco-System in Uganda'.

Mr. Ayota spoke about the NSSF Hi-Innovator Program, how it came to be and what it aims to achieve. He stated that the program was born out of the need to support small to medium enterprises (SMEs) and start-ups which in turn would help boost the low employment rates in the country.

He mentioned that while there are several viable start-ups in Uganda, a number of them fail to raise funding during the pilot stage, a stage that is critical before the commercialization and scaling of the business. This is where the Hi-Innovator Program supports businesses- by funding the pilot stage.

The Hi- Innovator Program fund has USD 20 million, with NSSF and the Mastercard Foundation each contributing 10 million dollars. It also has implementing partners including innovation hubs such as Outbox, legal practitioners - KTA Advocates, and financial institutions including Equity Bank.

The Judging criteria set for joining the Hi – innovator program is - a running business, value add, the potential for impact, potential to scale, and potential to be profitable.

The program consists of a number of stages- the pre-accelerator stage where entrepreneurs enroll in the business academy and are equipped with skills and knowledge on scaling their business, and the accelerator & pitch stage- a 6-month business support process where businesses receive funding and technical advice. The funding is not a grant. Rather, it is transformed into 6 % equity in the business.

There are no restrictions to joining the business academy. It is free of charge. It is at the stage of acceleration where businesses are judged against the criteria. The program also prepares businesses for the post-funding stage as it equips teams with the skill to pitch to venture capitalists. For every $1000 the company grows, NSSF dilutes itself by 1%.

Speaker Session Two

The second speaker session of the day was hosted by Mr. Mackay Aomu, the Director of Payments at the Bank of Uganda. He presented on the topic – **'Regulation of the Payment Eco-System in Uganda: Lessons Learnt'.**

Mr. Aomu began with a short background on the history of payment systems in Uganda. The operation of payment systems was a preserve of the Central Bank. These included the Real Time Gross Settlement (RTGS) and the Automated Clearing House.

Mobile Money was introduced in Uganda in 2009. The central bank had to give way to the promotion of innovation in the private sector, albeit with oversight by the central bank. As such, telecom companies that sought to offer mobile money operations were required to partner with commercial banks and attain a letter of no objection from the central bank.

In 2013, the Bank of Uganda issued the Mobile Money Regulations and in 2016, the Financial Institutions Act was amended to allow agent banking. 2017 saw the enactment of the Agent Banking Regulations which gave way to the shared agent banking platform and this gave birth to the current ADC(Alternative Delivery Channels).

With the proliferation of financial technology companies, aggregators and integrators came the need to regulate the payment systems created and run by the private sector. This is the main objective of the National Payment Systems Act 2020. The Act governs payment service providers, payment service operators, and issuers of payment instruments. This enactment was closely followed by the National Payment Systems Regulations, 2021, National Payment Systems (Agent) Regulations, and the National Payment Systems (Sandbox) Regulations.

In 2022, the National Payment Systems (Consumer Protection) Regulations, 2022, and the National Payment Systems(Amendment) Regulations, 2022 were passed.

Since the enactment of the Act, the Bank of Uganda has issued 18 licenses. There is now a clear system of entry and exit from the payment space. Furthermore, the Central bank has an innovation office for FinTechs which want to experiment in the regulatory sandbox.

In terms of challenges faced, the regulator noticed that the minimum capital requirements set by the regulations were too high for a number of Fintechs. Therefore, it had to extend the tiers from 3 to 6 to allow for entry for micro-payment service providers or operators.

Additionally, the regulator noted the difficulty that most applicants faced in meeting the other requirements under the Regulations such as corporate governance structures and generally, in interpreting the Regulations. In an effort to play a nurturing role, the Central Bank has issued conditional licenses and has formed a governance forum to aid interaction with the licensed providers. It also regularly has joint meetings with the Uganda Bankers Association (UBA) and licensees. Furthermore, the Central Bank has had to develop a payment system strategy.

Additionally, the regulator acknowledged the need for digital financial literacy in the county. It is now collaborating with entities including the Uganda Communications Commission and the United Nations Capital Development Fund to boost the levels of digital financial literacy among the masses.

One of the concerns which persist among users of these services is that charges are high and lack uniformity. The regulator is looking into using a national switch to reduce costs and increase competition.

Panel Discussions

Panel 1

The first panel for the day discussed the topic: **The Payment Sector and Gateway to Financial Inclusion.**

"You cannot have a digital economy without digital payments - Rashmi Pillai, Global Head, Public Policy, Wave Mobile Money."

The panel was chaired by Ms. Josephine Olok, Chairperson of FITSPA, and consisted of Mr. Stephen Mutana, the Chief Regulatory and Administration Officer at MTN Mobile Money Uganda, Ms. Doreen Lukandwa, Vice President, Global Enterprises, MFS Africa, Ms. Rashmi Pillai, Global Head, Public Policy, Wave Mobile Money and Mr. Timothy Musoke, CEO, Laboremus Uganda

This panel discussed how financial technologies can be used as an avenue through which financial inclusion can be achieved. They delved into the challenges of the sector and how policy can address these challenges. It also examined digital identity and digital lending.

1. Use of financial technologies to bolster the levels of financial inclusion in Uganda

- The panel referenced the definition of financial inclusion as defined by the world bank- Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs-transactions, payments, savings, credit, and insurance- delivered responsibly and sustainably.
- The panelists acknowledged the work that has been done by players in this space to increase the levels of financial inclusion through innovating around Africa's problems and finding solutions designed for Africa.

- A case in point is Safaricom which introduced mobile money into Africa. This service was available through Unstructured Supplementary Service Data (USSD), thus making it available to anyone with a basic phone. MTN introduced mobile money in Uganda in 2009, with the main function of mobile money being sending and receiving money. Services offered on the mobile money platform have since extended to utility payments, merchant payments, corporate payments, savings, and microlending.
- In line with innovating around Uganda's problems, financial technologies in Uganda have evolved to include insurance and wealth management.
- The accessibility of these technologies- with a number of them being available both on USSD and smartphones, has brought a number of people within the informal sector into the financial ecosystem.

2. Why do we continue to face challenges with financial inclusion despite the digitization and the proliferation of financial services in Uganda?

a) Affordability:

- The panelists emphasized the importance of the population using Fintech in order to achieve financial inclusion, particularly for the unbanked population.
- They noted there is a large agent network that substantially increases access to mobile money services. This is possible due to the liberty that the law grants payment service providers to recruit their own agents.
- However, for Uganda to digitize its economy, digital financial services must not only be accessible but also affordable to all demographics of the population.
- The panelists acknowledged the importance of value propositions in incentivizing the use of financial technologies. A number of people still use cash as there is simply less incentive to use mobile money. However, a few financial service providers have tried to address this challenge by lowering charges and offering services such as utility payments and micro-lending. For instance, Wave Mobile Money does not charge users withdraw fees.
- Due to the cost of using financial services, using cash is cheaper. The high cost of usage can act as a deterrence, particularly for those in the informal sector. If digital payments are very expensive, it incentivizes consumers and businesses to use cash or to use digital payments when it is absolutely necessary.

- The high cost of financial services emanates from withdraw charges and the taxes on mobile money and money remittance.
- However, the costs of digital financial services such as withdraw changes can directly be traced back to promoting its accessibility. These charges support the ecosystem. As for now, most transactions carried out through financial technologies are cash-in and cash-out which are facilitated by agents who in turn need to make a commission. In order to avoid these cash-out fees, there is a need to keep the money within the ecosystem.
- In terms of policy, there seems to be a conflict between financial inclusion policy and fiscal policy. High taxation on the sector results in higher costs of digital financial services as the cost is usually pushed onto the customer.
- On a regional scale, cross-border payments and remittances are costly. You cannot talk about African free trade agreements and not talk about pan-African payment systems and the high costs of cross-border money remittance.

b) Infrastructure :

- Financial technology is enabled by infrastructure. Mobile money services that use USSD codes require GSM network and financial technologies that are accessed through the internet require internet connectivity.
- It is important that enabling infrastructure is spread out all over the country.

c) Regulatory compliance:

i) Know-Your-Customer:

A key functionality in enabling digital inclusion is having a digital identity. Fulfillment of KYC requirements is the entry point into the financial ecosystem. Without national Identity cards or documents that can establish identity, a number of people are incapable of opening accounts with digital service providers.

- In Uganda, National Identity cards expire within a period of ten years. This poses the question of the ease and sustainability of using national identity cards as the basis for KYC.
- Furthermore, players required to fulfill KYC requirements often find difficulty in meeting the cost of effective KYC and verification of KYC data.
- Laboremus Uganda has found a way to tackle this issue of KYC verification through e-KYC. Through close collaboration with Government entities that hold data capable of verifying KYC information, the company has created an easy and seamless method of KYC verification and customer onboarding.
- However, for a large number of the population, there is still a challenge in attaining identification documents. This inadvertently shuts them out of effective access to financial services. Among those most affected are refugees.

3. Remittance of interest on electronic money accounts:

- Under the National Payments Systems Act and Regulations, electronic money accounts must accrue interest daily. Electronic money issuers must then remit the interest accrued on each account to the account holders every quarter. In the last quarter, MTN had to pay over 19 million wallets. This is a learning curve and there is active engagement with the regulator on how to do it sustainably.

Challenges:

- Lack of value proposition to incentivize people to use financial technologies. The available value propositions (i.e., the payment of utility services through mobile money) usually attract extra costs which discourage people from using them.
- The cost of usage is very high. This means a number of people may not be able to use financial technologies on a daily basis. This is due to transaction costs, costs on cross-border transfers, charges on remittance, and taxes.
- A vast number of people do not have national identity cards and many refugees do not have identification documents. This leaves them unable to open accounts with financial service providers.
- The problem of KYC stretches to the payment service providers who need to carry out KYC on clients and agents alike. This has proven to be a cumbersome and at times, expensive task. Entrepreneurs with financial technology innovations also often find it difficult to break into the market for this reason.
- Lack of trust in the financial systems. There is a very high degree of fraud to which a number of mobile money users have fallen victim to.

Recommendations:

- Digital financial services should not only be accessible but also affordable to every demographic of the population in Uganda.
- For people to use digital payments, there is a need to build trust in digital financial systems. Consumers need to have customer recourse measures in place. This must be collectively addressed by both regulators and payment service providers.
- Policymakers must work with the private sector to create a value proposition for the uptake of digital financial services. This may involve capacity building in the community to increase digital skills among those in the community.
- Policymakers must align fiscal policy with financial inclusion policy. Financial inclusion policy can positively contribute to the creation of a robust tax regime. Where digital payments are ubiquitous, this will certainly reduce the size of the shadow economy. Uganda's tax-to-GDP ratio has stayed at 40% for a long time. The country is still struggling to mobilize tax resources. A reason for that is people don't have the incentive to pay taxes and the Government cannot visually see how many people are in the shadow economy. If digital payments are extremely cheap and frictionless, it suddenly brings more visibility to the whole economy and helps tax the economy efficiently and equitably.
- Policymakers must create progressive policies that address the needs of the dynamic business models of financial technologies. Foster an environment of agility and innovation that responds to the needs of the growing sector.
- Under the current national payment system regime, agents are independent entrepreneurs whose interest is the commission made off each deposit or withdrawal. The significance of this role will substantially reduce in a fully digitized economy. This poses the question of what an optimal agent network looks like in a mature ecosystem. Policymakers must be prepared to create progressive policies that respond to the changes that come with a robust digital economy.
- Infrastructure must be spread out to rural parts of the country. Mobile financial services depend on a network- the GSM network and other financial services depend on internet connectivity.
- Companies like Laboremus can support financial inclusion by providing KYC infrastructure so that financial technology companies do not have to sink a lot of investment into KYC compliance.
- The fintech sector is heavily dependent on foreign investment which may lead to instability. There is a need to find local investment or make it easier to gain domestic investment for the sector.
- The justification for the expiration of national identity cards is based on the need to update the national register, not to put Ugandans' identities in doubt. It is to ensure that institutions that rely on this data have accurate data. This includes residence, names, status, and changes in fingerprints. This should be made clear to financial institutions and payment service providers.

Panel 2

The gig economy and Content Creation: Employment in the Future

The second panel for the day discussed the topic '**The gig economy and Content Creation: Employment in the Future'**
The panel discussion was chaired by Ron Kawamara – CEO of Jumia Uganda.

The eclectic panel comprised Mr. Danze Edwin John- the head of Digital Marketing at Next Media, Mr. Collins Mbulakyalo from Wappe, and Mr. Shehzada Wall- the managing Partner of Stallion Attorneys Tanzania.

The panel discussed the growth of the gig economy, the challenges, the difference between the gig economy and formal employment, and whether the gig economy should be formalized.

1. The current state of the gig economy in Uganda:

The gig economy is viewed as a side hustle (a small job that one can do alongside either formal employment or some other work or multiple small jobs).
About 69% of the workforce in Uganda is in the gig economy.

- It usually involves a small activity (activity for a limited amount of time per day) without formal employment contracts.
- The gig economy has made time and workplace redundant because work can be completed remotely at any time outside conventional work hours.
- The gig economy is largely made possible by technology and the internet.
- It does not require formal employment and therefore means that one can earn a living off mere skills as opposed to waiting on formal employment.
- There are no non-compete clauses that bind people in the gig economy which enables one to undertake several jobs and earn more than they would be bound by non-competes.

2. Evolution of the gig economy in digital marketing:

- Smartphones, the internet, and social media platforms have provided a platform that can potentially turn anyone into a digital marketer. The use of technology has aggregated the workers and the demand and given them visibility.
- Digital marketing is not very costly as it runs on various social media platforms which are generally free however, it requires one to attain the appropriate skills to succeed in the field.
- Personal branding or branding in general is vital for one to succeed in the gig economy. One must invest the time, skill, and marketing themselves to get their work out. If you take yourself seriously, big brands will want to associate with you.
- It might be necessary to put in place measures or incentives to ensure that an employer or agency benefits from the skills or training it may make available to its gig workers to boost productivity.
- It was noted that having quality assurance policies and policies on intellectual property rights/ ownership are fundamental for the proper running of the gig economy and digital marketing at large. This helps regulate the relationship and avoid certain legal risks that may be involved.

3. Should gig workers be formalized/regulated as employees?

- The UK Supreme court decision in Uber BV v. Aslam & others unearthed many challenges that could arise from formalizing the gig economy. This precedent though decided on certain principles may be applied to other jurisdictions without the analysis of its applicability and the growth of the different gig economies.
- Some countries such as India and Tanzania have passed legislation that ensures that persons within the gig economy obtain certain basic benefits commonly available to only persons within formal employment. These include medical care and minimum wages.
- It was largely agreed that the gig economy should be formalized however that the future of gig workers should consider incentivizing with health care and social security so that the persons in the gig economy do not miss out on these.

Challenges:

- Most persons in the gig economy do not have access to the benefits that employees under formal employment enjoy such as social security and medical insurance.
- Most precedents/laws adopted in Uganda are copied and pasted from other jurisdictions which may be more developed and are making decisions based on historical evidence. The effect of adopting precedence without the context could stifle the gig economy.
- Being an informal sector, there are no non-competes and therefore no commitment which can negatively impact productivity (because one can work for multiple persons – jack of all trades and master of none).
- Lack of contracts means enforcement is difficult.
- Lack of advanced skilling of the persons in the gig economy. One cannot be very successful in the field if they do not horn their skills.

Recommendations:

- There is a need to have legislation and policy on the treatment of persons (stipulate the incentives that should be made available such as medical insurance and minimum wage) in the gig economy and consumer protection to instill confidence in the gig economy.
- It was advised that in the meantime, persons who employ gig workers can seek partnerships to incentivize such as partnering with insurance companies to enable them access to insurance products.
- Harmonize the definition of who an employee is as the definition varies across East African Countries which makes it difficult to regulate the gig workers.
- Involve the gig workers in any policy or legislation process that may affect them. This will promote legislation from an informed point of view.
- Sensitization about the gig economy through platforms like the KTA symposium to inform policymakers

BREAKOUT SESSION ONE

Big Data and Technology Advancement in the Energy Sector: A journey t o cleaner energy

"All data harvested and processed in the energy sector is a government asset"– Peter Muliisa.

The panel was chaired by Mrs. Asmahaney Saad, the managing partner at KTA Advocates

This panel comprised Mr. Ellison Karuhanga, Senior Partner Kampala Associate Advocates. Mr. Andrew Ochan, Uganda Petroleum Authority, manager, technical data management. Peter Muliisa, Chief Legal and corporate affairs officer, Uganda National Oil Company. Bwesigye Don, Executive Director, African Centre for Energy and Mineral Policy. Mr. Patrick Edema, Project Assistant, AFIEGO.

This panel discussed how the country can leverage the available technologies to collect and employ data sets to make evidence-based decisions to enable the sustainable exploitation of the country's natural resources.

1. The status quo:

- After a successful exploitation stage, Uganda is currently in the development phase of its oil and gas.
- We have a modern Petroleum Act, 2013, and regulations thereto. These are the key legal instruments governing the oil and gas sector.
- Big data has four main characteristics; volume, velocity, variety, and veracity. These are present in the oil and gas sector.
- We have the capacity to collect, receive, analyze and make meaning of big data using various ICT tools.
- Oil and gas is a data-driven sector.
- It is data that shows how much oil is in the ground and how much oil is recoverable.

2. How big data shall be used in the Ugandan Oil and Gas Sector:

- The Petroleum Authority is monitoring data acquisition from the field and transmitting the same to data centers.
- The transmission from the oil fields and oil pipelines will be made/delivered in real time to the designated data collection centers.
- Sensors from wells, and production facilities, will be used to collect data that will be transmitted to the operators' offices e.g. the China National Offshore Oil Corporation (CNOOC). There is a need for the infrastructure to support this. The Authority is currently relying on the fiber laid by NITA-U.
- It will be important to know the volumes of the oil in the pipelines. Thus, fibers will also be laid along the pipelines for inter alia data collection purposes.
- Uganda is in talks with licensees to ensure that they submit all required data in the open subsurface data universe format to ease sharing and studying across all systems.
- This data will help us in making key decisions in the sector.

3. Key considerations

- Data protection and privacy.
- Data quality.
- Data format and usability.

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Challenges:

- There is a lot of misinformation partly due to limited data and using incredible data.
- High costs of collecting, processing, and storing data. This discourages the quality collection and processing of data.
- Poor technological transfer arrangement and shortages in expertise skills in the industry e.g., in rock mechanics, surface mining, mine data analytics, etc....

Recommendations:

1. Train more experts in the field of data collection, processing, and storage
2. More technology transfer and training in big data analytics
3. Trace the greenhouse emission from the sector using technology

BREAKOUT SESSION TWO

Data protection and privacy in Uganda

The panel discussion was chaired by Bonita Mulelengi – Senior Associate of KTA Advocates,

The panel comprised Ms. Stella Alibateese- the Director of the Personal Data Protection Office (PDPO), Ms. Juliet Nanfuka, Research and Communications at CIPESA, Ms. Priscilla Mutebi, Legal Counsel at Huawei Technologies (Uganda) Co. Ltd, and Mr. Richard Ndahiro, Technical Advisor, Inclusive Digital Economy at the United Nations Capital Development Fund (UNCDF).

The panel reviewed the history of data protection legislation in Uganda, its applicability, implementation, mechanisms to ensure compliance, nuances in the field, challenges so far, and recommendations for the sustainability of the laws on data protection, especially in the dynamic and volatile technologies in the digital ecosystem. The topics of discussion are summarized below as follows;

1. History of data protection Legislation in Uganda

The steps towards the promulgation of the Data Protection and Privacy Act, 2019 (DPPA) and its subsequent Regulations started in 2010 when the East African Community (EAC) Council of Ministers approved the EAC cyber law framework which guided the member states on what laws were necessary for the development of appropriate cyber legislation. This saw to the birth of the Computer Misuse Act 2011, the Electronic Transactions Act 2011, the Electronic Signatures Act 2011, and then the DPPA in 2019 whose Regulations were gazette in March 2021
Implementation of the Act started in August of 2021 after the establishment of the Personal Data Protection Office (PDPO).
Since then, the PDPO, with support from UNCDF has done a lot of work around digitizing the registration process and also sensitizing the public about the DPPA through monthly webinars.

2. Implementation and compliance with the DPPA

- Prior to the automation of the registration process, implementation (with regard to registration of entities) was slow however, with support from UNCDF, there has been tremendous traction on registration with over 525 (five hundred twenty-five) organizations registered so far.
- There also exists a register that lists all the organizations that have registered with the PDPO and it is available to the public.
- It was observed that a considerable number of entities within the private sector have registered with the PDPO with about 95% of the financial institutions being registered and others within the insurance sector.
- MDAs lag behind on this list however, following a circular issued by the Permanent Secretary of the Ministry of ICT and National Guidance, there has been traction.
- The PDPO is partnering with Regulators to support compliance and increase registration. Through these partnerships, the Regulators require their licensees to register with the PDPO as part of the licensing process. The PDPO has partnerships with Regulators such as the Bank of Uganda, and the Non-Governmental Organization Bureau among others.
- In May 2022, the PDPO portal was upgraded to enable receipt of complaints. Between May and September of 2022, there have been documented, about 1,700 (one thousand seven hundred) complaints. This is an indication as to the appreciation by the public, of the law and the rights therein even though a lot remains to be done regarding sensitization.
- The PDPO endeavors to avail information relating to the data protection legislation to the public through various platforms such as YouTube and other social media platforms besides their website.
- The PDPO is mandated to guide any person who requires it and therefore the public was encouraged to reach out if need be.
- Registration with the PDPO promotes compliance with the DPPA and makes it easier for the Office to support and monitor the protection of personal data.

3. Data protection and emerging technologies

- PDPO encourages data protection by design in all aspects of the development of new technologies.
- A lot is being done to incorporate aspects of data protection at a policy level. The PDPO has advised and made recommendations on the national 4IR policy where it has advocated for the development of a national data protection strategy.
- The DPPA is a principle-based law that will have longevity in the face of new technologies.

4. Cross-border transfer of data

- In February 2022, the Executive Council of the African Union passed the passed AU Data Policy Framework which advocates for cross-border data flow and provides recommendations for member states to be able to implement locally and address sovereignty in terms of ownership of data.
- The Framework also recommends equitable distribution of the data collected (that the African member states benefit from the data of their citizens that is being collected).
- There has also been a lot of effort to harmonize the data protection laws of the African states to facilitate, among others, data flows.
- Reiterated the restrictions and requirements for cross-border transfer of data within Uganda being that, there should be consent or that the countries to which the data is being transferred have adequate data protection legislation.

5. Data protection framework in the digital economy

- UNCDF works to ensure the inclusion of the lower-income segment population in the digital economy and how the new business models can improve their livelihoods.
- To achieve this, trust must be built wherein, the population must first be educated about the technology, its risks, the law, and redress among others. This is because a lack of knowledge creates distrust which fetters the growth of the digital economy.
- The data protection framework therefore should empower the data subjects to understand their rights, and have control of their data and how it is used.
- Building compliance on the supply side and awareness on the demand side instills confidence in businesses that rely on personal data to innovate.
- A clear framework gives certainty to the innovators building businesses and attracts investment.
- The framework must address and provide various platforms for redress including USSD code as some low-income communities may not have access to the internet.
- Inclusivity must address the cost of compliance especially because most people developers in the digital space are young and upcoming start-ups. Drive compliance while supporting innovation.

6. The civil society and data protection

- CIPESA provided(s) support in terms of research and commentary on data protection and privacy legislation.
- It was noted that mistrust still looms as there has been evidence of personal data collected by authorities being used to abuse the data subjects and transfer of data to persons who did not obtain the consent of the data subject. Sometimes, this data is used by government agencies to satisfy selfish interests.
- There remains a lack of appreciation of the law and the rights of the data subjects.
- Uganda's compliance with data protection when viewed against other countries is commendable.
-
- CIPESA called upon the PDPO to design data protection for the marginalized, especially women and to be stan on punishment for data breaches to build trust.

7. Data protection and e-governance

- The safety of the e-governance system is questionable as there are challenges of cyber security and adhering to the basics of an information security policy. It was noted that some government entities allow their officers to use personal emails to conduct government business which creates a gap for potential risk of loss of data and non-accountability for the data collected outside the official channels.

8. Data protection legislation and its relationship with other laws

- The contradictions and repetition of the provisions on data protection were observed. This was especially in line with the recently passed Computer Misuse (Amendment Act), 2022.
- It was observed that it is important to recognize the role of the laws beyond the borders of the country and the cost of implementation and compliance of that law and the other existing laws.

9. Data protection by design v. data protection by default

- Data protection by design means building privacy into every step of the operation of an organization and ensuring that all the officers in charge understand the duties and rights around data protection. These systems can be physical or automated.
- When you build privacy in every design then it becomes a default as you execute.

10. Nuances of data protection in the tech space

- Designation of Data Protection Officers (DPOs)
- Design and implementation of data privacy policies/notes
- Regular data privacy audits and assessments. It is important to understand what you collect to know how to protect it.
- Continuous training on data protection and privacy. This can extend to certification in data privacy.
- Registration with the PDPO.

11. Challenges:

- Limited funding and resources to the PDPO curtail their work.
- Lack of trust and education on data protection and privacy, the rights, obligations, and avenues for redress.
- Data protection and privacy apply to all persons however, the law and its implementation are in English which disfranchises the non-English speaking communities and often leads to mistrust. Mistrust hinders digitalization.
- This being a new law, there are challenges regarding the interpretation of the law (for example on the issue of consent and what amounts to 'reasonableness'). The law is yet to be tested in the courts of law.
- It is difficult to prove a country has adequate data protection legislation which makes the cross-border transfer of data difficult.
- Striking the balance between the right to privacy and freedom of speech.

12. Recommendations:

- Inclusivity should apply to both the data subjects and the persons who must comply with the DPPA. The cost of compliance should not be at the expense of the entities that collect/control/process data.
- Education on the law can facilitate trust and trust can then lead to the digitalization of the economy to better the livelihoods of the low-income population.
- Break down the training on data protection to departments so that each one understands. This enables the entire organization can remain compliant.
- Understand what kind of information/data you collect so you can know how to manage its protection.
- Have clear data protection privacy/notes.
- The PDPO is available to guide the law and its interpretation.
- Use of data transfer agreements to ensure/navigate compliance with the cross-border transfer of data
- Use of privacy consent technologies that can also anonymize/pseudomize personal data.
- Encourage data subjects to be aware of what their rights are including the right to erasure and deletion of data. This is how one gets empowered over their data.
- Conscience consent.
- Registration is a mechanism of data protection as it keeps the entities accountable.
- Data subjects have the power to ensure compliance with the DPPA therefore, the platform should be made available for them to achieve that.
- The collection of data should be limited (minimum) and necessary.

BREAKOUT SESSION THREE

Unlocking Uganda's Green Economy through SMEs: The use of Impact Investment and Technology to Combat Climate Change

The panel of the third breakout session of the day discussed the topic- Unlocking Uganda's Green Economy Through SMEs: The use of Impact Investment and Technology to Combat Climate Change

This panel was chaired by Mr. Mike McCaffery digital regional leader from the United Nations Capital Development Fund, East and Southern Africa Region

This panel comprised Mr. Shem Ddungu, head of digital banking, at Equity Bank. Ms. Anne Namakula Sserunjoji from Contour Consult Limited, Mr. Patrick Kibaya, CEO of Climate Change Adaptation innovation, and Dr. Peter Davis Mutesasira, Dean, Faculty of Law at Uganda Christian University, and environmental law expert.

'Climate change is a moral and justice matter. The more a country develops economically, the more glaring the effects become. ' – Dr. Peter Mutesasira. Dean of the Faculty of Law, Uganda Christian University

This panel discussed how intellectual property law, digital trade and the 4IR can facilitate an inclusive and robust digital economy and combat climate change.

1. International Policy and framework on Climate Change:

- The panel began by examining the international policy framework on climate change. Key among these is the Paris Agreement (or Paris Accords) of 2015 and the Sustainable Development Goals (SDGs), particularly Goal Six on water and sanitation, Seven on clean energy, and thirteen on climate change.
- COP27 is set to take place in November 2022 in Egypt. This conference shall discuss issues pertinent to climate change to build on the Paris agreement. The outcome of the discussions is the key actions to be taken globally to combat climate change within the next few years.
- Of great importance to countries like Uganda will be the negotiations around payment by developed countries for climate damage and climate loss in developing countries.

2. The state of climate change in Uganda:

- Uganda like all other low-income countries is feeling the impact of climate change more than developed countries. This is manifested in the changing weather patterns and the frequency of droughts and floods.
- Uganda has made some strides in deploying the use of technology to combat climate change. For instance, over the last few years, there has been work in providing more accurate weather information through the use of technology. Working with the government and other stakeholders, the Climate Change Adaptation Innovation was able to deploy automatic weather stations.

3. Uganda's Policy on Combatting climate change :

- Uganda is almost at the very bottom of the climate change index. Climate change is a moral and justice matter. The more a country develops economically, the more glaring the effects become.
- Uganda's policy on climate change leans more towards adaptation rather than mitigation.
- Uganda's Green Growth Development Strategy has five pillars; agriculture, natural capital, green cities, transport, and energy. However, this is still beyond the reach of many people. It is yet to register many benefits.
- The panelists noted that there is a gap in effective policies and laws to combat climate change. The few companies or entities undertaking green initiatives in Uganda usually do so out of goodwill, due to affiliations with international firms, and the need to comply with legislation or with a court order.
- So far, only two cases directly on climate change have been filed in court. Other cases have been based on non-compliance with the National Environment Act. However, in the long run, the outcome was a score for climate change.
- The panelists further noted that the court system as it stands may not adequately address issues on climate change with the urgency they deserve. This is due to several issues including case backlog and understaffing of the judiciary.

4. Combatting climate change through policy and finance: Lessons from Kenya.

- Kenya has a robust legal. and policy framework on climate change. The country passed its Climate Change Act in 2016. This increased the amount of climate litigation in the country.
- The institutional framework on climate change in Kenya is very liberalized.
- In regards to financial incentives and support for SMEs to adopt green technologies, Kenya has green bonds regulated by its central bank. The central bank is also financing green projects.
- Kenya has a water sector trust fund that finances gaps in water and sanitation. It also has an Innovative finance facility for water. Funds have emerged to support the gaps in finance.

5. The Role of Financial Institutions in Combatting Climate Change:

- Equity Bank works in close partnership with stakeholders in various sectors in the private sector to assist them to finance projects pertinent to climate change. This includes players in the agricultural sector and the clean energy sector.

6. Challenges:

- High cost of technology deployment.
- There is an absence of laws and policies specifically tailored to combat climate change.
- Climate litigation is frustrating. Many of the perpetrators are wealthy and politically connected making it harder to bring them to book.

7. Recommendations:

- The panel suggested that the Government should implement a law specifically addressing climate change as was done with Kenya. The absence of a law on climate change has impeded climate litigation.
- The panel also suggested that a separate tribunal be established specifically to preside over these matters.
- Incentivize the private sector to participate in combatting climate change. This may include the creation of green bonds and funds.

BREAKOUT SESSION FOUR

Taxation of the Digital Economy: Global Trends and Uganda's Position'

The fourth breakout session for the day discussed the topic **' Taxation of the Digital Economy: Global Trends and Uganda's Position'**

The panel was chaired by Ms. Winnie Begumisa from the Uganda Revenue Authority.

The panel comprised of Ms. Patronella Namubiru- the associate director, Tax and Legal Uganda, Deloitte East Africa, Ms. Lyla Latif- Tutorial fellow at the University of Nairobi and Warwick Law, Ms. Pamela Natamba, Partner and leader of tax practice, PwC, Mr. Anthony Kibirige, Team leader Transfer Pricing at Uganda Revenue Authority, Mr. Ricky Rapa Thompson, founder of Safeboda and director of E-Trade and Start-Up Association, and Mr. Gerald Namoma, Senior Economist, Tax policy and the Ministry of Finance, Planning and Economic Development. The panel discussed the approaches other countries have adopted in imposing taxation on digital platforms, how Uganda is going about digital taxation, and what Uganda tax policymakers must consider in creating policies and laws that do not stifle the digital economy.

1. Background to the imposition of taxation of the digital economy

- Over the last five years, there has been an effort to address the challenge posed by the digitalization of the economy particularly in the context of income tax and consumption tax.
- Digitization has made it possible for businesses to carry on operations and generate profits within a jurisdiction with no physical presence in the country. The rules of international taxation which were designed before the advent of digital technologies have proven inadequate insofar as they only allow governments to tax firms with a physical presence in their country.
- There has been an erosion of the tax base as clients who were originally getting services from brick-and-mortar businesses have now shifted to getting these services cheaply from foreign digital companies. Additionally, digital companies are sourcing significant revenue from countries in which they have no physical presence. As a result, tax authorities have imposed taxes or are contemplating the most appropriate way to impose taxes on the digital economy.

2. Organization for Economic Co-Operation and Development (OECD)/ G20 Base Erosion and Profit Sharing (BEPS) framework

- At an international level, there is the Organization for Economic Co-Operation and Development (OECD)/ G20 Base Erosion and Profit Sharing (BEPS) framework. There are 15 actions under the OECD inclusive framework. Each action deals with different aspects of international transactions. Some of them relate to transfer pricing, and some to double tax agreements. Specific to the digital economy is action 1 which deals with digitization.
- Action 1 puts forth a multilateral approach to taxing Multi-National Enterprises (MNEs) operating in countries in which they have no physical presence. There are two pillars.
- Pillar one deals with the fair distribution of profits and taxing rights among the countries. Generally, it would reallocate some taxing rights to market countries where entities carry on business and generate a certain amount of revenue regardless of whether the entities have a physical presence there or not.
- Pillar one targets the highest earning Multi-National Enterprises (MNEs) with a global turnover greater than 20 billion Euros and profitability greater than 10%. It then allocates parts of its profits to the countries where the MNEs' end users of goods or services are located.
- Allocation of revenue to a particular market jurisdiction is dependent on the satisfaction of a new special purpose nexus test- the market jurisdiction must be one where the MNE generates at least 1 million euros in revenue and at least 250,000 euros in revenue for countries with a GDP lower than 40 billion Euros.
- Pillar two (the Global Anti-Base Erosion Model Rules) comes in to ensure that MNEs pay a minimum level of tax on the income arising in each jurisdiction in which they operate. It applies to organizations with consolidated group revenues of at least 750 million euros a year. The minimum rate has been set at 15% percent. If the MNE pays a rate below the minimum rate, the MNE will be required to top up.

- Notably, even though Kenya and Nigeria are members of the Inclusive Framework, the countries have not signed their agreement with the statement.
- This is for several reasons, the prime among them being that the statement may not be suitable for developing economies
- Under pillar two, countries will be required to remove unilateral Digital Services Taxes and undertake not to introduce such measures in the future.
- Kenya has taken a unilateral approach to tax the digital economy through digital service tax (DST). The Kenyan Income Tax (Digital Service Tax) Regulations which came into force in January 2021 imposes a 1.5 % digital services tax payable on the gross income derived from Kenya or through a digital marketplace. This tax applies to both residents and non-residents.
- In the case of the provision of digital services, the 1.5 % rate is imposed on the payment received as consideration for the services and in the case of a digital marketplace, on the commission or fee paid to the digital marketplace provider for the use of the platform.

3. Uganda's approach to taxation of the digital economy

- Uganda has imposed a Value Added Tax on non-residents who supply electronic services to a non-taxable person in Uganda. The collection of this tax took effect on 1st, July 2022. This tax is to be paid at the standard rate of 18%.
- The in-scope entities must register with the Uganda Revenue Authority, remit VAT and file VAT returns with the URA every quarter.
- Uganda has already registered several big players in this space.

4. Challenges faced with the imposition of VAT on digital services so far

There is a danger of double taxation. Before the URA came out to clarify that VAT applies to non-resident suppliers of electronic services, a company (even those not registered for VAT), purchasing goods or services from a non-resident entity would have to declare it as an import of service and pay VAT on the same.

With the amendment, non-residents are to charge VAT on the in-scope services they supply to Uganda. This may result in payment of VAT on imported services and on the amount charged by the non-resident supplier too.

5. Uganda's policy on taxation of the digital economy

- The panelists noted that the digital economy does not operate in a vacuum, it operates within the overall economy. Uganda has a tax regime that covers broader economic activities, including some aspects of the digital economy.
- The digital economy does raise some specific issues, particularly in the erosion of Uganda's tax base.
- The panel did emphasize the need to understand the digital economy in depth before specifically taxing it. Failure to do so may lead to tax policy that stifles the growth of the digital economy in its infancy and repel investment into the sector.

Uganda's tax policymakers are not solely interested in raising revenue from the digital economy. They recognize the potential that the digital economy holds for Uganda and the benefits it has to offer to the overall economy. As such, they acknowledge the need to construct a tax policy that incentivizes the growth of the digital economy.

6. Considerations for creating and implementing policy on the digital economy

- The Government has been closely monitoring the global trends in the taxation of the digital economy.
- Whereas Uganda already imposes VAT on electronic services from non-residents, it has also considered imposing taxes on the income of digital service entities.
- About two years ago, the government considered introducing a digital service tax. This discussion has since been shelved while the government attempts to gain a deeper understanding of the digital economy and how such a tax would impact the sector.
- While Uganda is not within the Inclusive framework, the government is paying attention to the ongoing discussions on the multilateral approach under Pillar one of the OEDC/ G20 BEPS and the unilateral approaches taken by Kenya and Nigeria through the imposition of digital services tax.
- Adopting a multilateral approach as suggested under the Pillar One approach may not be favorable to a developing economy like Uganda's. Firstly, the revenue generated by the MNE in Uganda may not meet the revenue threshold required to entitle Uganda to a portion of the revenue as stipulated under Pillar one. Secondly, the Pillar One approach will only apply to companies with a particular global turnover, therefore making it restrictive.
- The adoption of a Pillar Two approach (minimum tax rate) may harm foreign investment and the importation of digital services. Furthermore, Uganda already has low tax rates and several tax incentives to attract investment. Adoption of such an approach creates a risk of transferring revenue to other jurisdictions.
- Regarding introducing a DST, Uganda's tax policymakers are advised to take lessons from Kenya which has recently introduced the DST. Kenya faced several challenges during the initial implementation of the tax. One of them was setting a fair tax rate so as not to deter start-ups and disrupt the sector. Secondly was to precisely determine the scope of individuals to whom the tax would apply. There was also the need for a nexus to establish tax liability and the need to clarify the definition of a digital service provider.
- When setting a tax policy, the policymakers do not only consider revenue. They also consider how it would affect the policy would affect competition, would be equitable, and would be administrable. They consider the level of the tax burden. The rate mustn't be too high as this may have adverse effects.
- From the private sector's point of view, it was advised that policymakers should keep in mind that the imposition of additional taxes on the local e-commerce sector may create unfair competition with the businesses that still use brick and mortar.
- Additionally, it was pointed out that such taxes directly influence the cost of digital services. This cost is usually borne by the end user. Examples were drawn from the taxes on mobile money and the recently abrogated Over The Top tax.
- The panelists advised that the gaps within the existing laws should be addressed.
- Regarding implementation, the panelists acknowledged the difficulty that may be encountered when trying to capture payments that have been made to digital service providers, especially across the border. The panelists suggested that this may be made possible through executing the exchange of information agreements. This will have data protection and privacy obligations on the parties dealing with this data.

Challenges

- From this panel and the ones before it, it was disclosed that the digital economy is already over-taxed. Uganda's digital economy is still in its infancy. Taxation may aggravate the challenges already faced by players in the sector.
- A justification for taxing digital platforms lies in the erosion of tax bases and the fact that companies without a physical presence in the country are accumulating revenue sourced from Uganda. This creates a need to reconcile competing interests.
- There is a need for more information and a deeper understanding of the nuances in Uganda's digital economy before direct taxes can be imposed.

- Administrability of a unilateral approach to taxing digital services or platforms.

Recommendations :

- Effective stakeholder engagement with players within the digital services space to gain a firm understanding of the sector and the possible implication of further taxation.
- Consultations with other developing nations that have imposed digital tax and picking lessons from them.

Masterclass Session One

Topic: Trademarks as a tool for Brand Protection
Presented by: Mawalla Advocates (Tanzania), Gikera & Vadgama Advocates (Kenya), KO Associates (Kenya), Citadel Advocates (Kenya), and moderated by KTA Advocates (Uganda)

A brand represents quality, credibility, and satisfaction in the consumer's mind, a promise that helps consumers in their buying process, and the most valuable intangible asset that a company possesses.

A Trademark is a unique design, or name, in creating an image identifying a product that differentiates it from others in the market. Trademarks are protected both locally and internationally?

Trademark could be a symbol or even a logo which should be distinct from others.

Genesis/history of trademarks

- Shepherds used to place burn marks on their livestock with a branding iron to differentiate it from the livestock of other shepherds. After the Industrial Revolution, goods were being sold all over the world and manufacturers recognized the need to have their products identified and differentiated from others. This led to brand names and ultimately to brands being protected by trademarks.

Evolution of Trademarks

- Trademarks were then classified into two types based on how they were used. The first category of sealing trademarks (the trademark was sealed on the livestock). A seal refers to the owner of these cattle to avoid confusion with other cattle or to deter thieves from stealing them.
- Secondly, production trademarks were primarily used by craftsmen and traders to show buyers who made the product and guarantee its quality by linking the product to well-known craftsmen and traders. Exhibitions and trade fairs were important in the development of trademarks because traders and manufacturers were compelled to use different trademarks to assist consumers in distinguishing and selecting various products of the same type.

Need to register your trademark.

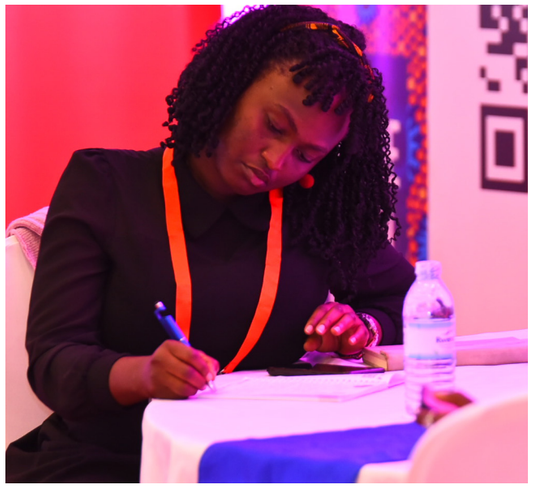
- Prevent economic damage to your business.
- Protect the goodwill and reputation of your business's brand.
- Avoid confusion in your customers when it comes to competing goods and services.
- Protect your goods and services from low-quality counterfeits.

Selecting a trademark:

- Do not be generic (wouldn't want to call your product clocks yet you sell clocks)
- Don't be descriptive -be very basic /straightforward
- Could be suggestive (Netflix- for movies)
- Be Arbitrary- An arbitrary mark is a term used on a product or service that bears no relationship to that product or service.
- Be Fanciful: A fanciful mark is a made-up term used on a product or service.

How marks are protected

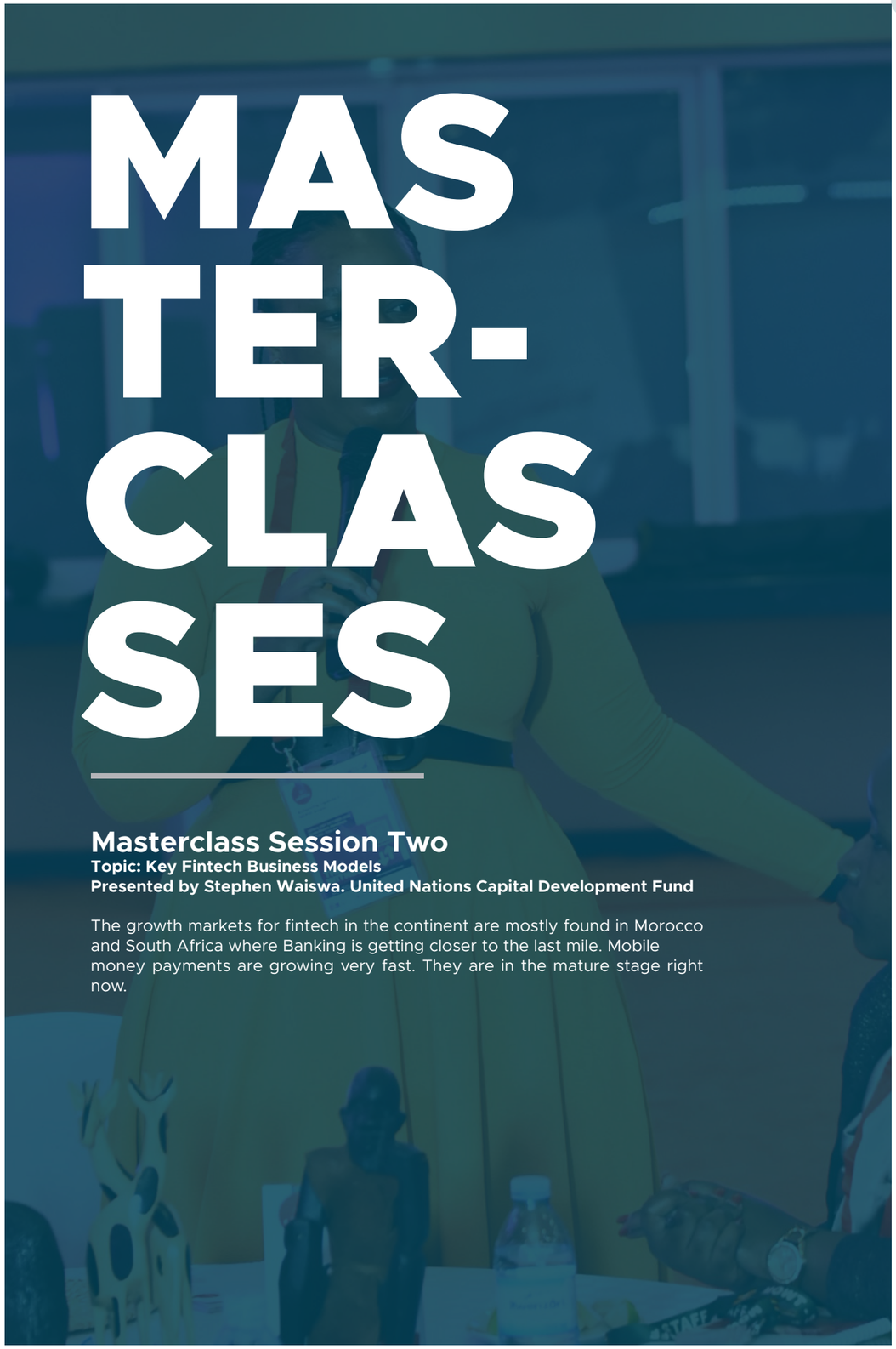
- Beyond selecting the trademark, a business owner is also required to settle on the category they wish to register.
- This registration is guided by the Nice Classification which contains about 45 categories (11 service classes and 34 product/good classes).
- These categories are what are known as classes and contain information about a good or service.



- You choose a class that is most relevant to the business activity you engage in.
- Search to ascertain whether the trademark exists in the register upon payment of a prescribed fee.
- Trademark application form and payment of application fees. The application should contain the mark proposed to be used, the class of goods or services, the name, address, and the signature of the applicant.
- If the applicant is a foreign company, a Power of Attorney or Form of Authorization (TM no. 1) to an agent (Advocate of the High Court) will be required.
- Examination of application - determine its inherent registrability and conflict with prior existing registrations /applications.
- If accepted, the application will be advertised in the Uganda Gazette for 60 days.
- If there is no opposition after 60 days, the Registrar shall enter the Trademark in the register and issue a Certificate of registration upon payment of the prescribed fee by the applicant.

Importance of Trademarks;

- Trademarks are used to build brands of a business
- The owner can exclusively benefit in the right
- Commercial gain
- Exclusive use of the registered marks the market
- Remedies can be obtained from trademark infringement
- Trademark licensing and other commercial arrangements protect the owner.
- Maximum protection of your mark.
- Use the trademark as a domain name.
- Services in the Eco-system like; amazon can register your brand



MASTER-CLASSES

Masterclass Session Two

Topic: Key Fintech Business Models
Presented by Stephen Waiswa. United Nations Capital Development Fund

The growth markets for fintech in the continent are mostly found in Morocco and South Africa where Banking is getting closer to the last mile. Mobile money payments are growing very fast. They are in the mature stage right now.

How do you position Fintech to work in the last mile?

- Payment infrastructure on connectivity-agent work management: Current fintech Trends are now in mobile banks, online solutions for mobile partners, access to payments by the click of buttons, and innovation that leverages several technologies.
- Adoption of Blockchain Technology: By creating a platform that empowers cryptocurrency payments, Fintech will travel fast Implementing a decentralized finance system in their Fintech product, a Crypto-powered payment gateway and creating a blockchain solution.
- Adoption of Robotics customer service i.e.; Chatbots to support customers, Voice chatbots, Robots on on-site service, Retail robots, and Interactive chatbots.
- Adoption of APIs for example; API for licensed mobile banking infrastructure for investment, Insurtech enabling API, pay in and pay out APIs (QR Code), API for contactless payment, Biometrics API.

Challenges African Fintech may face reaching their next stage of growth at the center of big data and API Integration

1. Scale and profitability burdens
2. Uncertain regulatory environment
3. Data Insecurity
4. Limited Technology and mobile expertise
5. User retention and inexperience in the market

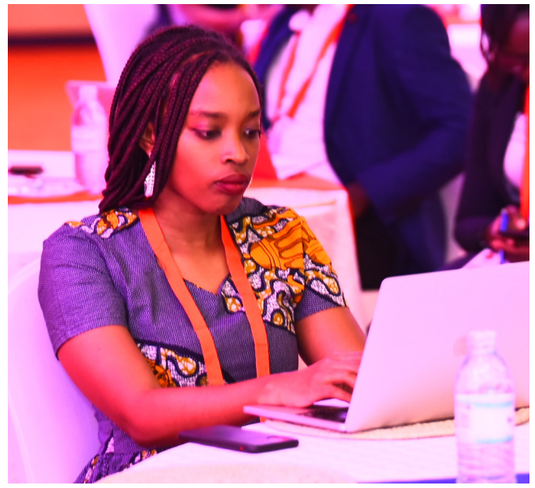
Adaptive Fintech Pathway also known as AFP is the deliberate innovative sustainable and tested fintech solutions delivered to last mile or beneficiaries with a viable business case.

AFP comes with increased innovations in banking as a service, instant payment, online banking, currency exchange, and trading, digital market access, increased uptake of decentralized finance, the wider adaption of embedded finance, increased pipeline of fintech's evidenced in mergers and acquisitions activity, open banking e.g., shared infrastructure, agent banking and use application programming interfaces. FinTech in Uganda is found in;

- Energy like; M-kopa, E-Commerce,
- Merchant solutions like; MTN, Airtel
- Insurance like; Jubilee, ICEA Lion
- Credit like; Tala, Airtel
- Savings like; Stanbic Bank, Centenary Bank
- Payment like; URA, KCCA, UMEME, National Water and Sewerage Corporation

Benefits of Fintech Uganda:

It waves mobile money to deep rural areas and urban centers to use momo pay, airtel money pay. E-market places connect farmers to input, School pay, and Easy agriculture-connecting farmers to advisory services so as have meaningful agriculture models, to solve issues of stock management making their operations efficient and more reliable-an enabling environment.



Regulation:

- Different laws have been set up to support this sector such as National Payment Systems Act 2020. by the National Payment Systems Regulations, 2021, the National Payment Systems (Agent) Regulations, and the National Payment Systems (Sandbox) Regulations. The Financial Institutions Act 2004, Capital Markets Authority Act 2011, Electronic Transactions Act, and Regulations 2011. The Trade secrets Protection Act 2009 and the contracts Act 2010.

How to enable the next growth phase in Fintech:

- **Policy and Regulation,**
- **Digital Finance Literacy and**
- **Innovations**

Rapporteurs:

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