Social - economic Impact of Broadband in Kenya

Discussion Report

April – May 2019

Acknowledgments

We wish to thank the Ministry of ICT, Communications Authority of Kenya, and Huawei for engaging KICTANet in this broadband discussion. Thanks to all the stakeholders who spared the time to raise the issues and concerns and to Mr. Mwendwa Kivuva who moderated the online discussion.

The Kenya ICT Action Network (KICTANet) a multi-stakeholder platform for people and institutions interested and involved in ICT policy and regulation was selected to lead and moderate the online discussion. The network aims to act as a catalyst for reform in the ICT sector, and it's work is guided by four pillars of policy advocacy, capacity building, research, and stakeholder engagement.

Grace Githaiga
KICTAnet Co-convenor
July 2019

Executive Summary

International Data Corporation (IDC) was conducting an assessment on the state of play and impact of broadband in Kenya, broadly looking at the socio-economic impact on consumers, businesses and various sectors like agriculture, education, healthcare, finance and government. This assessment was commissioned by Huawei in collaboration with Ministry of ICT and the Communications Authority of Kenya. It had the objective of supporting the policy making process to develop broadband services and infrastructure throughout Kenya and achieve substantial economic impact in the economy. Other partners in the study were the ICT Authority and the National Communications Secretariat.

The assessment involved a review of the current state of play in the sector as well as gaining insights from a wide range of stakeholders on the barriers and recommendations to increase the impact of broadband. Among the key stakeholders identified included KICTANet, from whose members IDC was to seek to gain civil society and other stakeholder perspectives including real life examples of impact of broadband, challenges faced in increasing impact of broadband and recommendations on interventions needed to address the challenges identified. This was conducted as an online debate facilitated and moderated by KICTANet from 23rd to 30th April 2019.

Through the online discussion, we sort also to understand the current state of play of broadband in Kenya, including:

- What barriers are there in increasing impact of broadband?
- What recommendations can counter the barriers in increasing impact of broadband?
- How is the sector regulated and what policies are in place? How is the business environment for those who want to venture into provision of broadband services?
- How do we create the skills and demand and use cases for broadband?
- What local content is there and is it having an impact or not? What type of local content are we lacking?
- How are users and businesses benefiting from broadband?
- Any other issues.

KICTANet list members were given the leeway to add any other issue on broadband. After the discussion, this summary report was developed and subsequently validated during a face to face meeting on 10th May 2019 at Nairobi Panafric Hotel. IDC also incorporated part of these findings into the broadband market assessment they were conducting.

Findings

The issues discussed were grouped into the following issues:

- Cost
- Access
- USF
- Spectrum
- Capacity Building
- Content
- Policies
- Issues that remain unresolved

Definition

Broadband was defined as any high speed internet that is always on. In the Kenyan context, view were that broadband should be defined as 2Mbps per user, which would mean 10Mbps for a home with 5 users. This definition was derived from the draft Kenya national broadband strategy 2023. This was a deviation from the speed of 256kbps that was previously used on older policy documents by Communications Authority of Kenya. Recommendation I.113 of the International Telecommunications Union (ITU)Standardization Sector defines broadband as a "transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (Mbits)[1]. There was consensus that since broadband technologies are always changing, the definition of broadband should also continues to evolve.

Thematic issues

1 Cost

Participants felt that the cost of broadband was high, and compared to the per capita income of the population.

Some users felt that taxes were a contributor to the rising cost of broadband. An incentive to waive taxes and other subsidies on cost of internet would help the sector grow faster. The government could get more tax revenue by creating an enabling environment that could create business opportunities on the internet.

The youth felt Internet was beyond their reach because the majority of youth are unemployed, yet consistent access to the Internet would require about Ksh2500/month ($25). It was also felt that the cost of devices was still beyond the reach of many, despite the proliferation of cheaper smartphones. Those who cannot afford high end devices still prefer feature phones that have limited internet capabilities.

Capital Expenditure was deemed as the greatest challenge for starting broadband Services business. This cost includes acquisition of spectrum licenses, putting up masts, digging trenches, permits from county governments, land lease to mount masts on their facilities, and marketing of products and services.

[1] https://www.itu.int/osg/spu/publications/birthofbroadband/faq.html

2 Access

The bigger access debate is usually on how to get the unconnected connected to broadband. Participants felt that a big section of the population was still unconnected, with unavailable broadband being an impediment. In some areas, cellular network that can enable broadband connection is only available in certain spots.

Participants felt broadband connection in urban areas is good, but broadband availability was poor in peri-urban areas, and completely unavailable in large parts of the country including rural areas.

This lack of Internet access create a form of inequality. Lack of broadband excludes citizens from government services which citizens have to get online. In Kenya, it is mandatory to access the following government services online with no offline provision: file taxes, driving license, passport, birth certificates, death certificates, and many others.

“Now in my rural life, there really is no connection. Sometimes even shooting a text or making a phone call needs tree-climbing trees. So forget about a 4G connection or a Whatsapp message. FYI my county is quite near to Nairobi. Every time I experience this it magnifies to me the kind of inequality ICT can cause.” - Kanini Mutemi

The reliability of Internet access statistics provided by the Communications Authority of Kenya (CA) were questioned. For example, according to one CA report[1], “as at 31st December 2018, the total number of active data/Internet subscriptions stood at 45.7 million of which 47.9 percent were on broadband”. In a country with a population of 52 million people[2] that puts the total internet subscriptions at 87.7% of the entire population. CA was able to clarify the meaning of the statistics,

“... all penetration levels are computed by dividing subscriptions by total population multiplied by 100. These figures represent the number of active SIM cards in the case of mobile broadband and the number of individuals or/and entities who have subscribed to an internet service in the case of fixed broadband, which does not actually reflect users. Users are empirically determined through National Surveys” - Chrostopher Wambua, Director, Consumer and Public Affairs, CA.

CA gave definitions of subscribers, subscription and users. A Subscriber is an entity or an individual with an active contract between themselves and a service provider; and is used in the case of fixed services. Subscription refers to any SIM card that has generated revenue in the last 90 days; and is used in the case of mobile services only. A user refers to any individual or entity that has consumed internet services in the last 12 months regardless of technology, or location

[2] https://ca.go.ke/wp-content/uploads/2019/03/Sector-Statistics-Report-Q2-2018-19.pdf
[3] https://www.worldometers.info/world-population/kenya-population/

According to CA, from a Regulatory reporting perspective, an Active Subscription/Subscriber is described as any subscription/subscriber that has generated (through usage or receipt of services) any revenue through service provision in the last 90 days. CA assured participants that it shall apprise the community on the revised methodology for computing internet and mobile subscriptions.

Last mile connectivity is yet to be achieved, even after the government used considerable capital to implement the National Optic Fibre Backbone (NOFBI) Cable to all counties in the country.

One solution given to increase access to broadband was supporting community networks which offers affordable access in underserved areas. Community networks are information infrastructure and applications that support the activities of a particular community. In Kenya, community networks have promoted access in areas left out by the private sector players because of low prospects on return of investment. During the meeting, it was noted that community networks as a model for connectivity is often left out in broadband discussions, and therefore they are also left to self regulate. Most of the times, the initiators of the networks come up with their own regulations, including capping internet speed and allowing multiple vs single usage patterns as per the available bandwidth and population coverage.

3 Universal Service Fund (USF)

Participants felt that USF was not doing enough to connect the unconnected. The Universal Service Advisory Council (USAC) was viewed as not doing enough to ensure that the benefits of broadband reach all citizens.

The Communications Authority of Kenya (CA) clarified that it is implementing USF projects in education, and voice infrastructure projects. The education broadband connectivity project is providing internet connectivity to 896 public secondary schools across Kenya; of which 600 schools have already been connected. The USF voice infrastructure project has provided voice and 3G data services infrastructure in 62 locations in marginalised areas that previously did not have any coverage. CA shared the list of the locations that have benefited from the mobile voice infrastructure project executed through the USF, and promised to share the information on the beneficiary schools of the Education Broadband Connectivity Project through their website. CA also said they will use USF to cover another 129 sub locations that have no coverage. CA estimates that 512 locations in Kenya have zero coverage, requiring ksh 120 billion to close the connectivity gap.

4 Spectrum

Efficient and fair spectrum management: Spectrum should be allocated in a fair manner, with special consideration for operators that are willing to connect the unconnected and marginalised areas. Smaller operators should also get a soft landing in spectrum allocation since they not only offer alternatives to consumers, but also provide needed competition to large telecommunication companies.

We need to zero rate taxes on equipment operating within the 2.4 or 5.8 ghz range which can support Community Networks.

5 Capacity Building

Local governments were viewed to be short on capacity in utilising broadband, and had no understanding of social-economic impact of broadband. Local authorities should be made to invest in broadband the way they invest in roads and water. This lack of capacity on local authorities has led to underutilisation of National Optic Fibre Backbone (NOFBI), and exorbitant taxes heaped on broadband service providers when they want to lay infrastructure in rural areas. This has led to low last mile coverage in those areas.

Teachers too should be equipped on proper use of ICT so that the knowledge can cascade down to students.

6 Content

The use-case of broadband came up, with the type of content and its fitness of purpose to have any meaningful social-economic benefits. Broadband was viewed to have brought about increased access to inappropriate content. Content producers were challenged to provide more relevant local content that can spur the uptake of broadband.

One participant wanted an in-depth analysis of meaningful outcomes and impacts the access to broadband has brought on the population. Whether the population with access is empowered enough to take advantage of the potential benefits of broadband. This leads us to the value proposition and opportunities to the intended user of the broadband; the benefits vary from user to user, which may be economic, or social benefits.

"As a practising subsistence farmer, I have to drive 50 Kilometres to look for agronomists since it is a real headache to balance between using my solar power to try and google with unreliable broadband or just get the agronomist and pay him USD 50 for a day with him at the farm." - Barrack Otieno

7 Policies

Kenya enacted a National Broadband Strategy in 2013. This was updated to the Draft National Broadband Strategy 2023[1] that takes into account recent technological, industry trends and market realities. The Draft strategy went through public participation in March 2019. It covers; Infrastructure and connectivity, Content services and applications, Policy - regulations and Legislation, Capacity building and innovations, Broadband devices, Finance and investment, Privacy and Security, Role of stakeholders in expanding broadband penetration, Governance and delivery framework. The outcome of the public participation has not been released to the public by the National Broadband Strategy Steering Committee. A participant from a government

[4] https://ca.go.ke/public-consultation-on-the-national-broadband-strategy-for-kenya/

agency informed members that the 2023 broadband strategy is as good as ratified, and that it was before the national cabinet.

Kenya also has the ICT Policy 2006, and the yet to be ratified Draft ICT policy 2016. The ICT policy should be the overarching policy on which the other policies in the sector branch from. Lack of policies and laws that promote broadband was viewed as an impediment. An example is the lack of a critical infrastructure policy or law that defines issues like infrastructure sharing, protecting infrastructure, taxation on infrastructure, and structured rollout of infrastructure like dig once rules.

Public participation and multistakeholder approach were given as some of the solutions to ensure proper policies are implemented. Participants felt that public participation in policy formulation was not adequate nor transparent, and it was only used to justify that the public has been consulted yet there was no meaningful participation. Often times, the public input period is very short, calls for comments are issued on short and tight deadlines, and there is no feedback after input has been given by the public, and no feedback on whether the public input has been incorporated. An example is the draft ICT policy 2016 and draft broadband strategy 2023. Even after public participation, there was no formal ratification of the documents. Participants also felt that the policies and strategies should be aligned, and reference each other in concert.

"Better public participation model in policy formulation. Public Participation MUST mean exactly that. People's views taken into account and a transparent process put in place. There is no point of debating and giving views, if those charged with the process do not give a balanced reason of accepting or rejecting the views. We need someone to sponsor a bill in Parliament and define what Public Participation is and what the parameters are. This is something KICTANet needs to champion post haste." - Ali Hussein

Participants felt that most of the issues stifling broadband stem from County governments who have exorbitant way leave charges, and lack of Broadband Strategies or Frameworks within County Governments.

CA stated that it is using other regulatory mechanisms, including licence obligations to the Mobile Network Operators to fast-track facilitation of connectivity to unserved and underserved population.

There was unequivocal support that the country must have an executable plan to ensure the disenfranchised have broadband access.

8 Issues that remain unsolved

On affordability; how can broadband prices be brought down? Probably, the ISPs are struggling to stay afloat and the business environment is not favourable. To put this in perspective, is Safaricom data profits justifiable given the GDP per capita income of the citizenry? According to Business Daily, in 2018, data profits for Safaricom grew by 24% to ksh36.4 billion ($364million). Are other operators profitable? Would bringing the prices down put smaller operators out of business?

On Content; what is the challenge in producing local content? What barometer do we use to determine if there is no relevant local content?

On policy; how are new ICT related strategies being drafted without an updated ICT policy?. The current Kenya ICT policy was enacted in 2006.

Supporting infrastructure like electric energy impact broadband access. What policies should be put in place to ensure all the infrastructure needed for broadband is available to communities?

Evaluation and Feedback

There was excellent technical reliability of the listserver as well as the online resources with no reported incidents of technical failure.

Participation

Around twenty active participants actively engaged on the listserver during the online discussions. Around thirty participants attended the face-to-face breakfast event on 10th May 2019 at Sarova Panafric Hotel, Nairobi where the online deliberations were presented, discussed, and validated.

Appendix: Comments by participants

Available on the KICTANet archives
https://lists.kictanet.or.ke/pipermail/kictanet/2019-April/subject.html#start

1. Online discussion on social-economic impact of broadband in Kenya
2. Online discussion on State of Broadband - Policy day
3. Online discussion on State of Broadband in Kenya

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