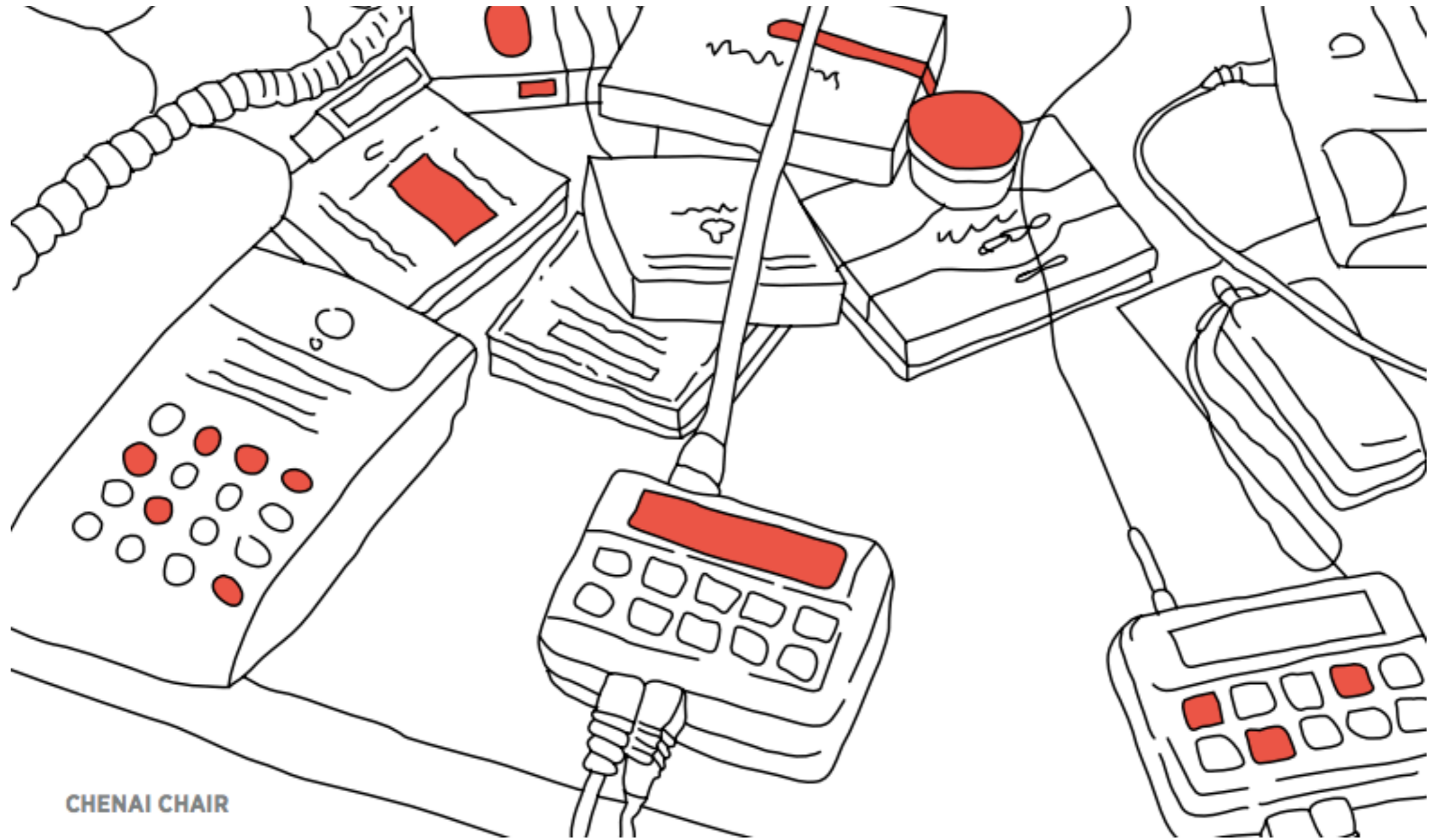


# Challenges in measuring affordability and understanding user strategies: Kenya, Rwanda, South Africa and Nigeria study



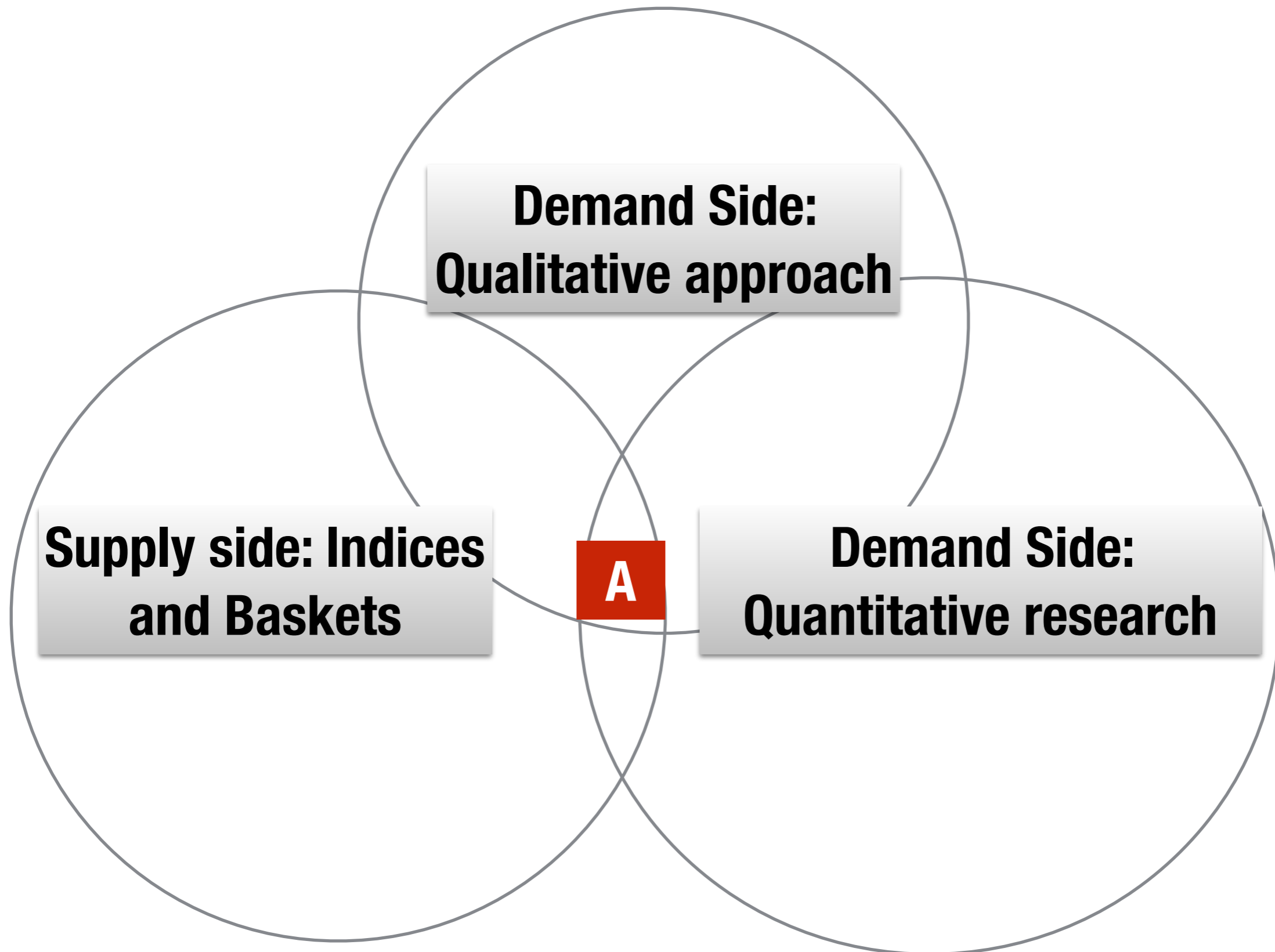
CHENAI CHAIR

**AIS 2017: Internet measurement Initiatives in Africa**

**Organisers: AFRINIC & Research ICT Africa**

**30 May 2017**

# Approach to affordability



# Supply side: Comparative price indices

## Research ICT Africa Mobile Pricing (RAMP)

### 1GB Basket

Cheapest prepaid broadband product in Africa  
(1GB Basket)



### Value for Money

Highest Value for Money prepaid bundle product in Africa  
(Voice, Data, SMS)



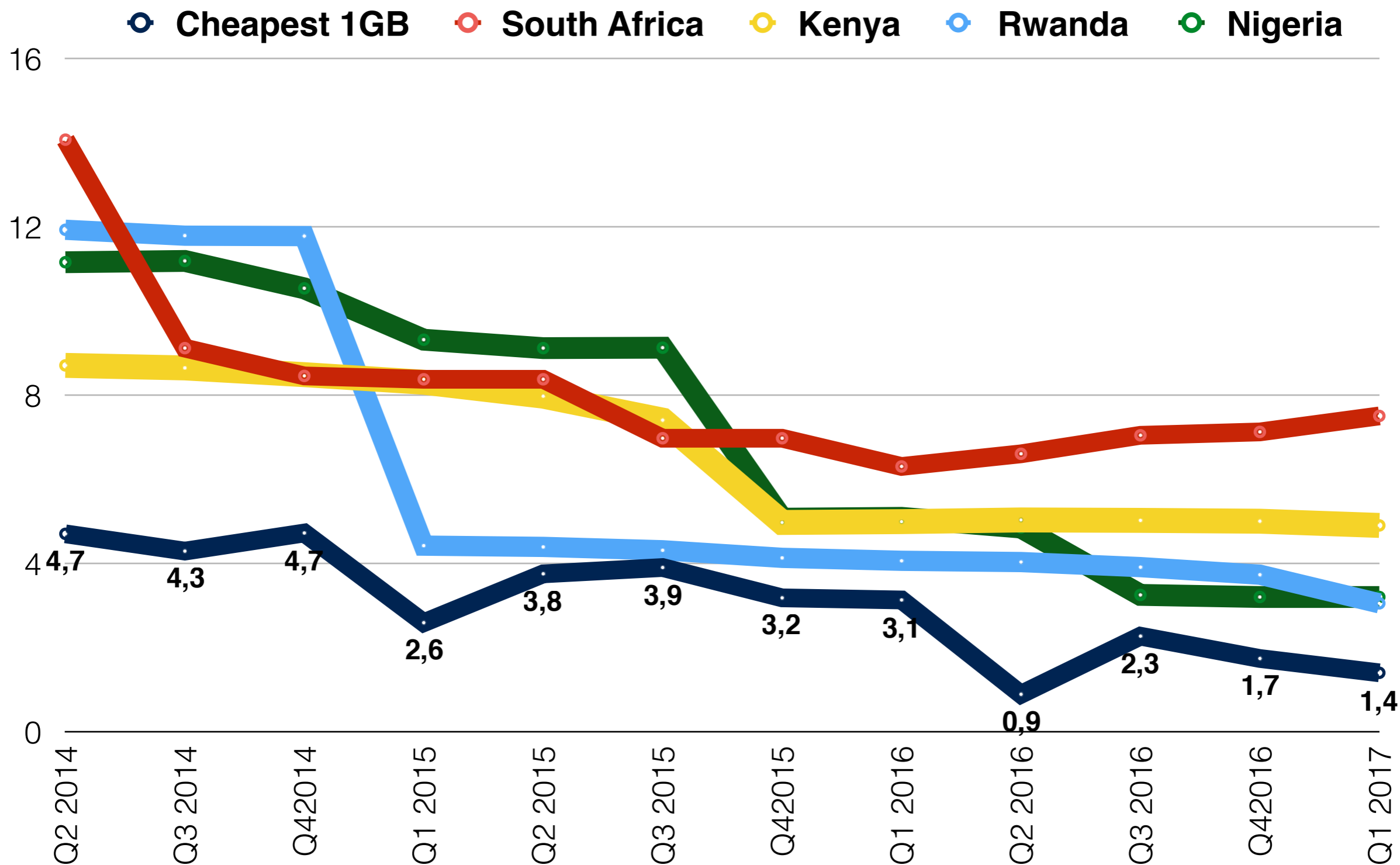
### OECD Basket

Cheapest mobile prepaid voice product in Africa  
(30 Calls / 100 SMS)



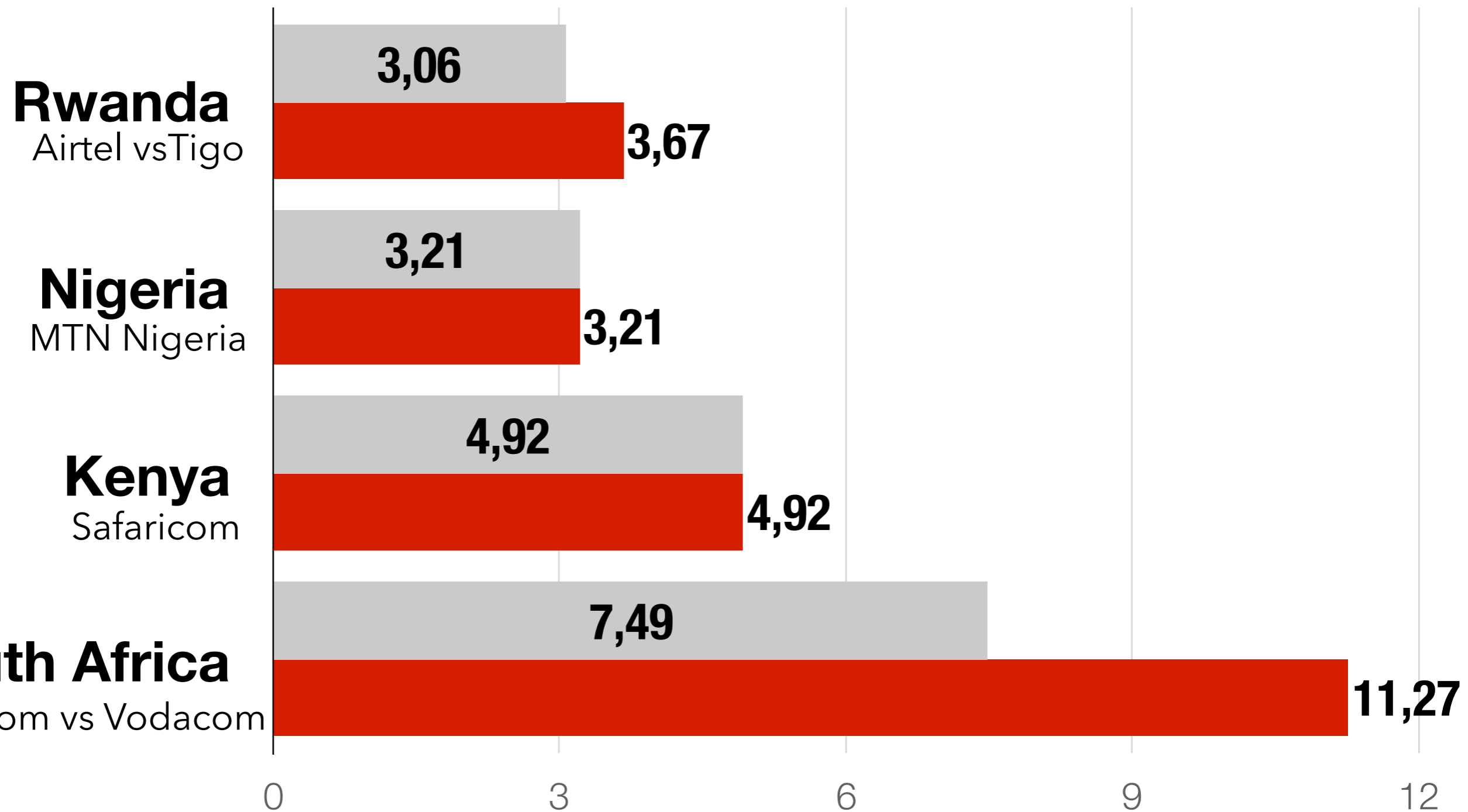
<http://www.researchictafrica.net/pricing/ramp.php>

# 1GB basket Pricing trends Q2 2014-Q1 2017



How do the four countries compare to the cheapest 1GB product in Africa?

# Q1 2017 1GB (USD) Cheapest operator vs Operator with dominance



# VMI: Top performing bundles

Country	Operator/ product	Cost	Product offer	VMI score
Rwanda	Airtel Max pack 5000	USD 6.11 (RWF5000)	Unlimited on-net calls, 90 minutes off-net, 600SMS and 5GB	14,1
South Africa	Telkom Free me	USD52.91 (ZAR699)	30GB data, unlimited SMS & on-net calls, 300minutes off net, zero rated WhatsApp text and free Wi-Fi	6,1
Nigeria	MTN xtra talk	USD 6.42 (N2000)	244 voice minutes calculated from N9,750 airtime & 625 MB	6,0
Kenya	Orange Holla Premium	USD 0.48 (KSh 49)	180min on-net, 10 min off-net, 500 on net SMS, 100 off-net, 50 MB. Free Wikipedia and Facebook	2.15

# Alternative offerings

- ▶ Operators introducing alternative products to draw price sensitive consumers
- ▶ Complexity of products impacts on ways to track them from market perspective
- ▶ These products include
  - ▶ “Snack bundles” (shorter validity products)
  - ▶ Zero rated offerings
  - ▶ Promotions
  - ▶ Service specific data
  - ▶ Add on social media data

# Mobile network data offerings to consumers

Data type	Key elements	Cost to consumer	Data variations	Examples
<b>Prepaid data package</b>	Characterised by the quantity or volume that the user purchases and the expiry date of the bundle purchased, i.e., validity.	Full cost on customer.	<ul style="list-style-type: none"> <li>- Set volume of data above 1MB with validity that is daily, nightshift (between midnight and 5am)</li> <li>- Pay for unlimited Internet access for a set period</li> <li>- Combined-service top-up: user buys a combination of two or more services, without a breakdown of how much each service costs.</li> </ul>	<ul style="list-style-type: none"> <li>- Buy once-off 100MB of data valid at night</li> <li>- Unlimited Internet for 30 days</li> <li>- Buy 100MB data + 100 call minutes + 100 SMSs + 100MB for social media (or unlimited data for social media).</li> </ul>
<b>Rewards</b>	Based on activities the user does that qualifies the user for a reward from the operator, extra data, extra SMS or airtime credit.	Customer does not pay directly for the service in rewards.	<ul style="list-style-type: none"> <li>- Recharge certain amount = extra data</li> <li>- Recharge = accumulation of points.</li> </ul>	<ul style="list-style-type: none"> <li>- Recharge USD50 and get 150MB or USD100 of data before they have used the airtime for a service</li> <li>- For every USD10 spent, the customer gets one point. points can be converted to a service</li> </ul>
<b>Zero-rated data</b>	Applications or services that do not carry a data charge to the user's data	No cost.	<ul style="list-style-type: none"> <li>- Social media sites</li> <li>- Educational sites.</li> </ul>	<ul style="list-style-type: none"> <li>- Zero-rated Free Basics or Twitter.</li> </ul>
<b>Service specific data</b>	Buying bundles to use for a specific service.	Customer pays the cost for the service selected only	<ul style="list-style-type: none"> <li>- Social media bundle</li> <li>- Music subscriptions.</li> </ul>	<ul style="list-style-type: none"> <li>- Buy monthly data for WhatsApp only.</li> </ul>

Source: RIA African Mobile Pricing (RAMP) Index (RIA, 2015) based on operator advertised products



# Navigating costs from a demand side perspective

“Network is one great challenge, then the cost. You want to download a book, before it is complete you hear a message ‘tititit’ you are running short of bundles, the bundles are almost depleted. **The cost is taking a toll on the users.** And then the cost of the gadgets, many would want to but the phones are costly, so you go for the small one ‘katwin’ (twin SIM, a feature phone) you try to do anything it tells you insufficient memory. You have all sorts of limitations.”

- Semi-urban female respondent, Kenya  
Kenya

# Mobile Data saving strategies



	Urban	Peri-urban	Rural
Nigeria	<ul style="list-style-type: none"> <li>- Prepaid package data</li> <li>- Reward data</li> <li>- Service specific bundles</li> </ul>	<ul style="list-style-type: none"> <li>- Zero rating,</li> <li>- Prepaid package data,</li> <li>- Reward or promotional data</li> <li>- Tethering</li> </ul>	<ul style="list-style-type: none"> <li>- BlackBerry plans</li> <li>- Reward data</li> </ul>
Kenya	<ul style="list-style-type: none"> <li>- Prepaid package data</li> <li>- Promotional mobile data</li> <li>- Modem data</li> <li>- Tethering</li> </ul>	<ul style="list-style-type: none"> <li>- Promotional data</li> <li>- BlackBerry data</li> <li>- Zero rating</li> </ul>	<ul style="list-style-type: none"> <li>- Prepaid package data</li> <li>- Rewards data</li> </ul>
South Africa	<ul style="list-style-type: none"> <li>- Prepaid package data</li> <li>- Service specific bundles</li> <li>- Rewards data</li> </ul>	<ul style="list-style-type: none"> <li>- Rewards data through operator promotions</li> <li>- Mobile tethering hotspots</li> <li>- Mobile airtime</li> <li>- Zero rating</li> <li>- Service specific data</li> <li>- Prepaid package data</li> </ul>	<ul style="list-style-type: none"> <li>- Prepaid package</li> <li>- Rewards data through operator promotions</li> </ul>
Rwanda	<ul style="list-style-type: none"> <li>- Rewards data through operator promotions</li> <li>- Modem data</li> <li>- Prepaid package data</li> </ul>	<ul style="list-style-type: none"> <li>- Rewards data through operator promotions</li> <li>- Prepaid package data</li> </ul>	<ul style="list-style-type: none"> <li>- Rewards data through operator promotions</li> <li>- Prepaid package data</li> </ul>

# Demand Side: Quantitative

- Research ICT Africa Household and Individual Surveys in 13 countries

Average spending at country level/income group

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Average country/income groups income

- Approaching affordability based on:
  - Average Income spend on communications monthly
  - Average Income spend on data monthly
- Measure gives us average share of income spend on telecommunications cost at a national level
  - Broken down to income groups to reflect disparities at different levels

# Conclusion

- ▶ 1GB basket mobile broadband does not truly reflect user practices and market dynamics
- ▶ ICT ecosystem approach enables one to piece the puzzle to affordability
- ▶ Assessing pricing, consumption patterns and income spend indicate an aspect to affordability
- ▶ Questions of quality of service, device affordability and gendered issues such as time

# References:

- ▶ **Research ICT Africa Mobile pricing index-(<https://www.researchictafrica.net/pricing/ramp.php>).**
- ▶ **Research ICT Africa Household and Individual survey [http://www.researchictafrica.net/household\\_and\\_individual.php?h=12](http://www.researchictafrica.net/household_and_individual.php?h=12)**
- ▶ **Chair, C. (2017). Internet use barriers and user strategies: perspectives from Kenya, Nigeria, South Africa and Rwanda. Beyond Access Public Policy Paper series: Policy paper 1. <http://www.researchictafrica.net/home.php?h=205>**

# Definitions...

## *Methodology:*

**Voice/SMS basket (OECD basket):** 30 voice calls for a total of 50 minutes and 100 SMSs per basket per month.

**1 GB basket:** monthly cost of 1GB data based on prepaid data top-ups or bundled top-ups. Both baskets are converted to USD for comparison across African markets.

## **Bundled Value for money index**

- Only bundles offering data combined with voice and SMS or, data and voice, or data and SMS are captured.
- The index places monetary value in terms of USD on bundled minutes, SMS and data from an OTT perspective
- Data is more valuable than voice and SMS
- The ratio is set at:
- Data MB= 1 US cent; Social Media MB=0.5 US cent; Any voice minute=0.5 US cent On-net voice minute=0.25 US cent Any SMS=0/01 US cent and On net SMS=0.005 US cent
- Unlimited calls, SMSs or data contracts were made comparable to capped packages by applying the following rules:
  - Unlimited minutes = 240 minutes per day or 7200 minutes per month
  - Uncapped SMS = 240 SMSs a day or 7200 per month.
  - Uncapped data = the smaller value out of the fair terms of use policy limit and 30 GB.

# Definitions.

Mobile phone expenditure: spend on voice, SMS and data (airtime and subscription)

Mobile data expenditure: Data only, dedicated top up or data bundles

Income: Salary/wages/pension/social grants/gifted money/intra household transfers

**Thank you**

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