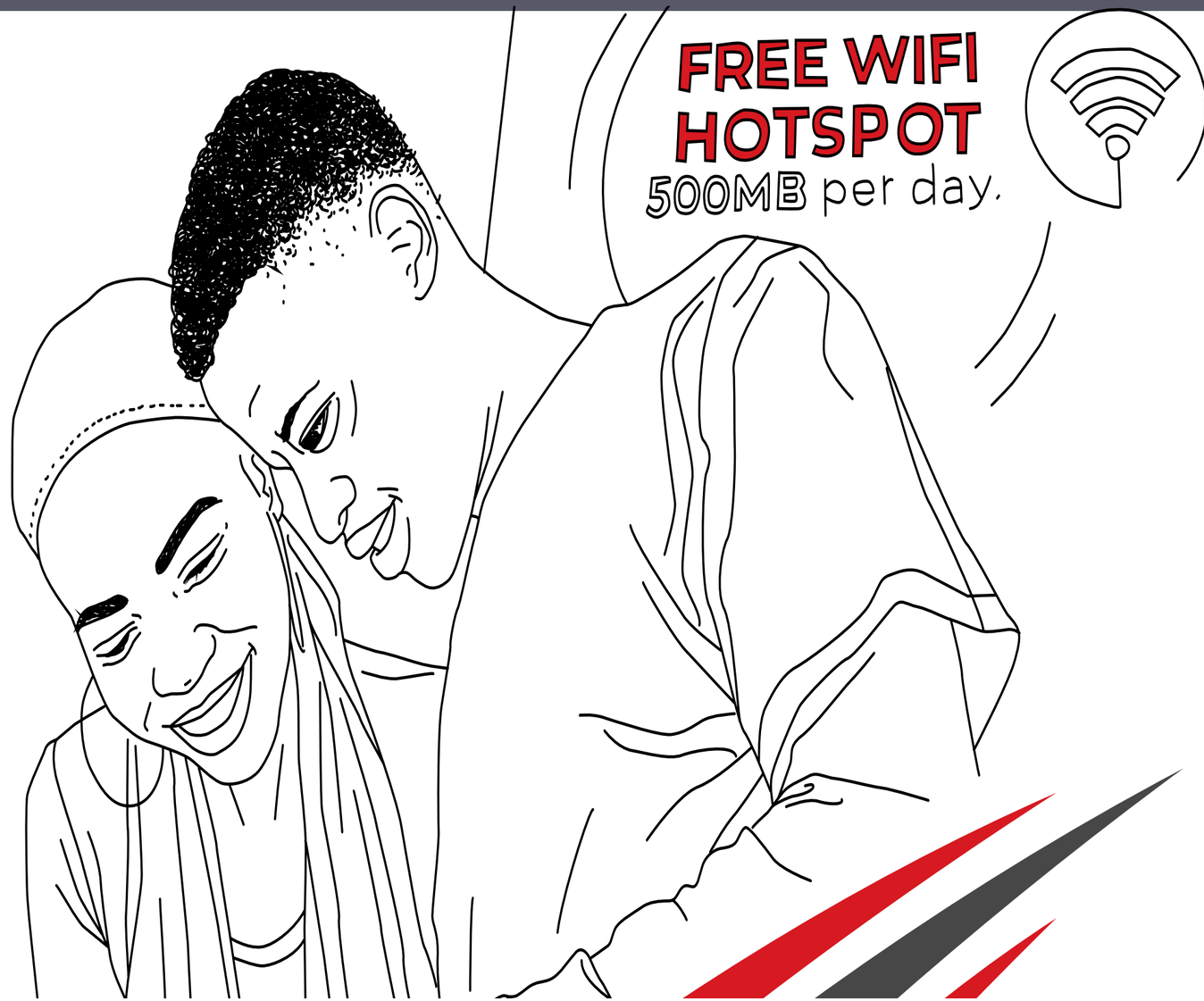
Session 3- assessing affordable access



Prof Alison Gillwald, Research ICT Africa,
UCT Nelson Mandela School of Public Governance

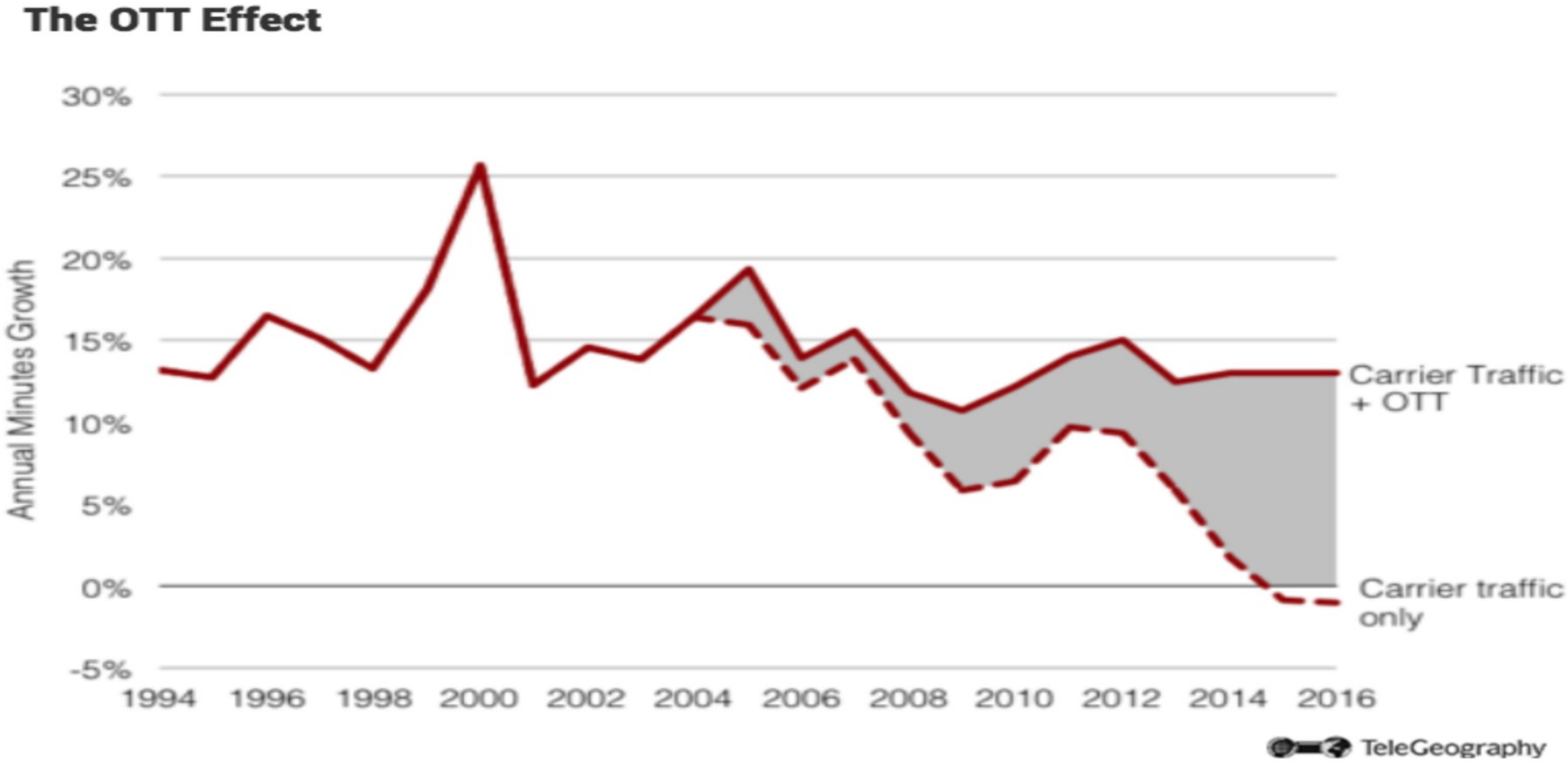
ITU REGIONAL ECONOMIC DIALOGUE
Ougadougou 8 October 2018

researchICTafrica.net

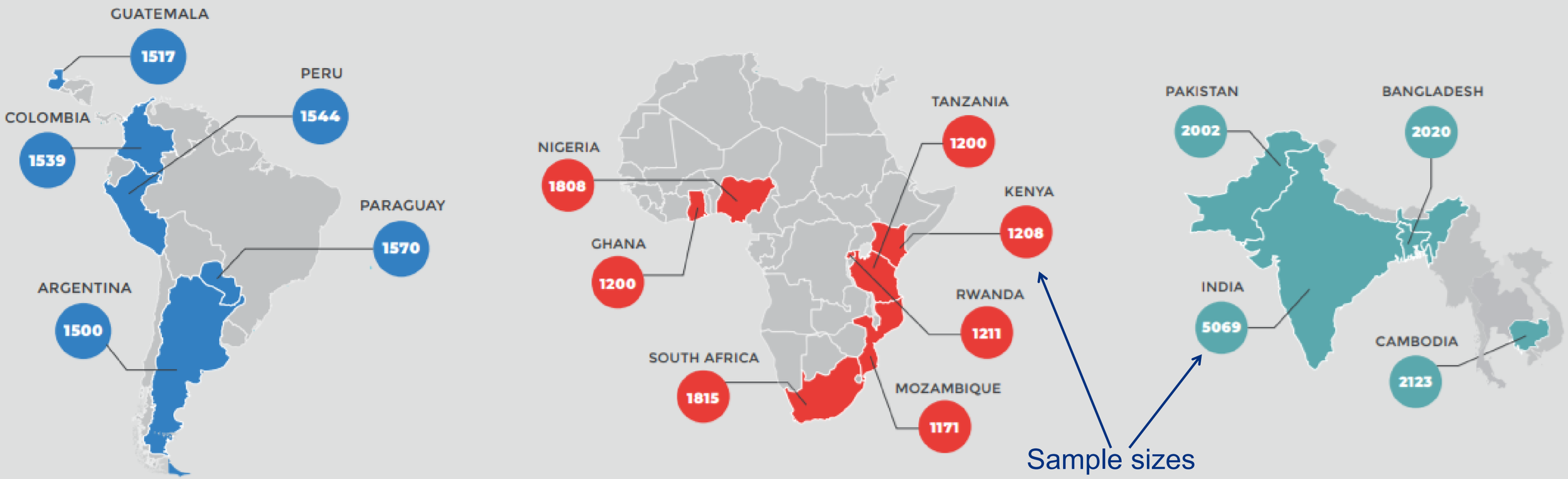
Changed market conditions

- saturated voice markets shifting to data
- introduction of low-end smart phone driving data
- declining revenue from traditional services
- operators face becoming ‘dumb pipes’
- multiple new business models emerging from data competition to retain and attract new customers
- zero-rated services, social media bundles, blended bundles, build-your-own-bundle.
- multiple user strategies to access and use Internet – substituted voice and text data services, public wi-fi for updates, U-tube.
- More users, more devices, more services, more demand

OTT impact of international voice traffic

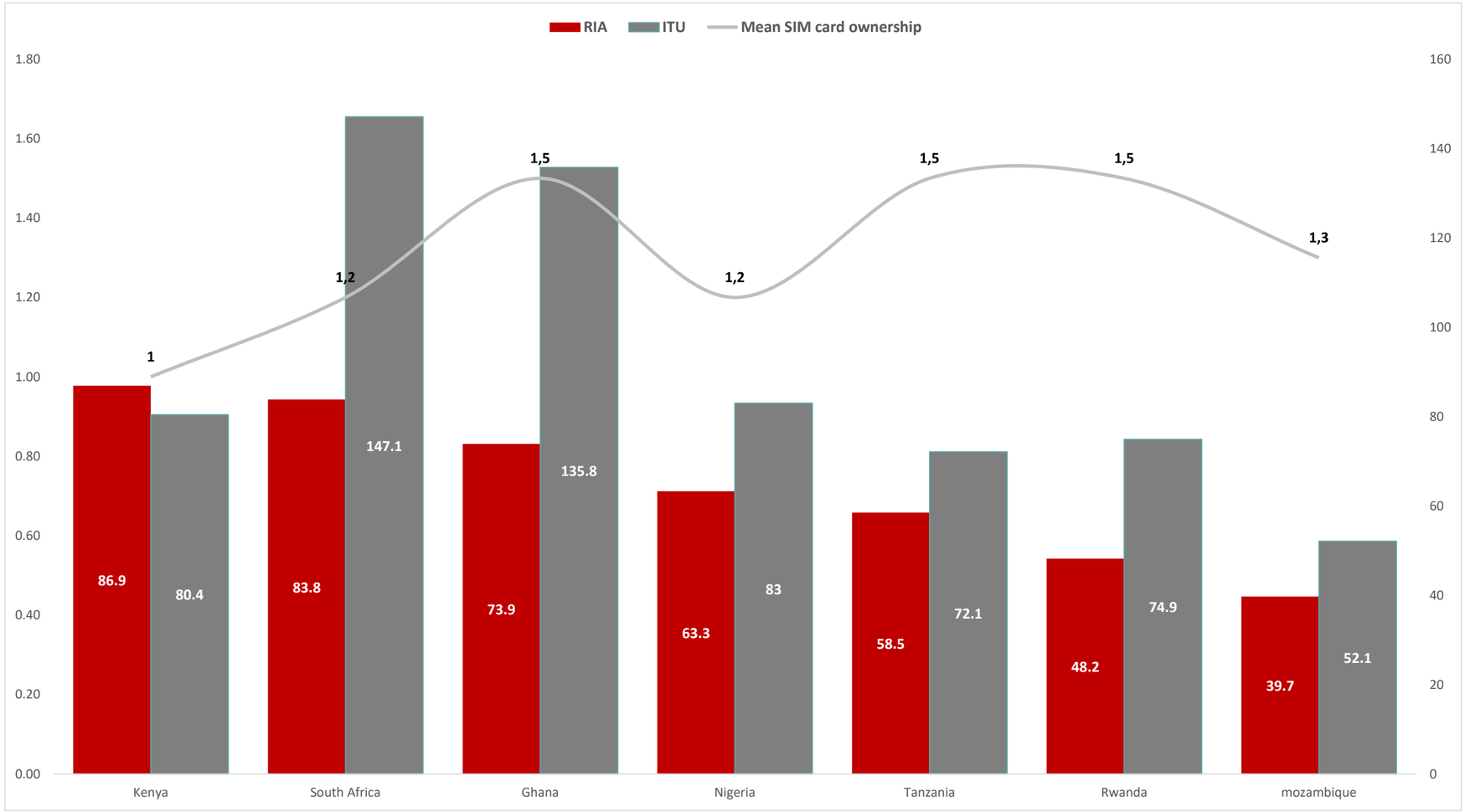


Nationally representative surveys of ICT access and use by households & individuals aged 15-65; In 16 developing countries; Data represents 30% of the global population; 28,900 face-to-face interviews; +/-3 margin of error



Note: Pakistan excludes AJK, FATA, Gilgit-Baltistan (~2% of population)

Supply vs Demand-side indicators what's the story?



- Active SIMS vs Unique subscribers.
- Disaggregation by gender, income, education, location.

RAMP 1G pricing index

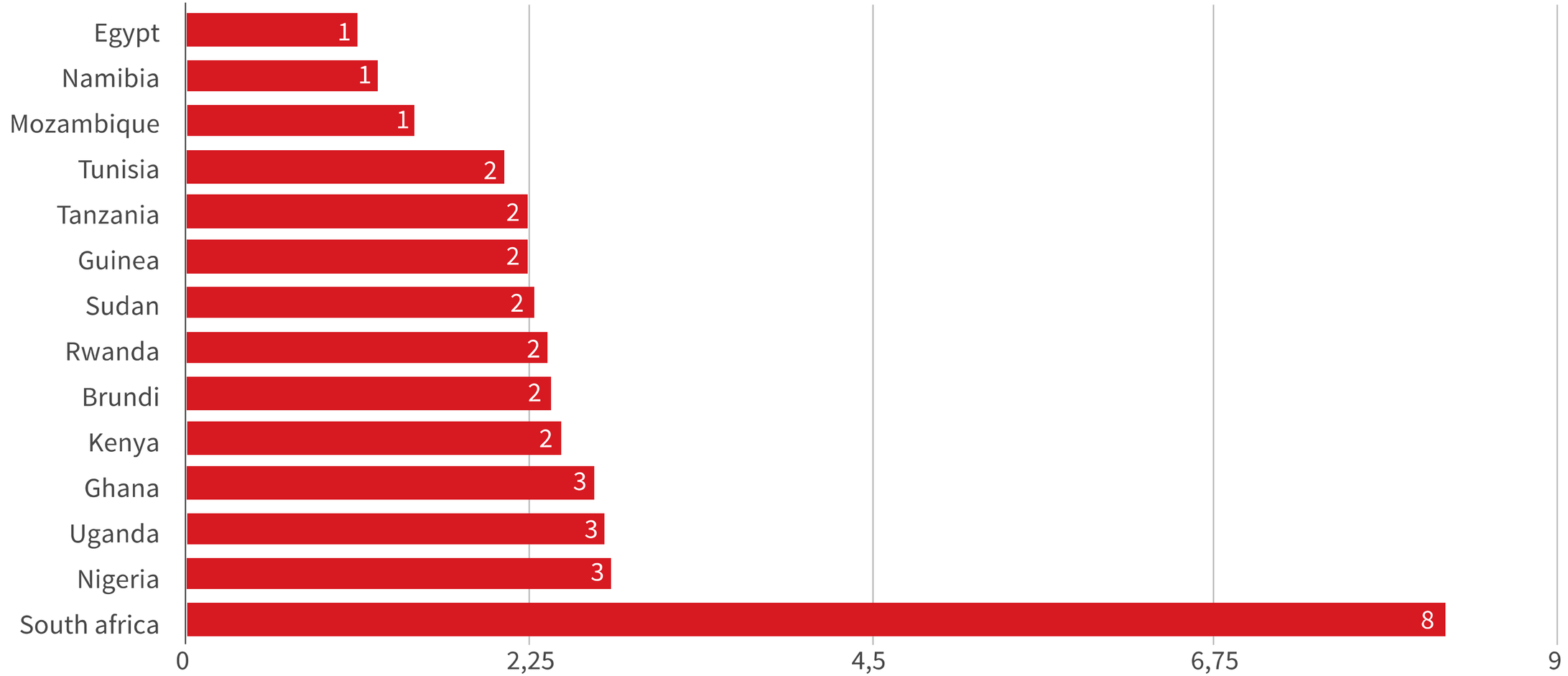
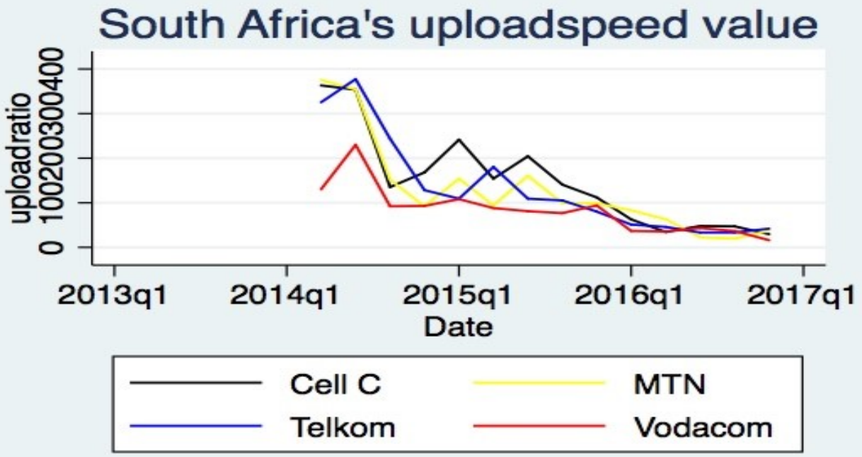
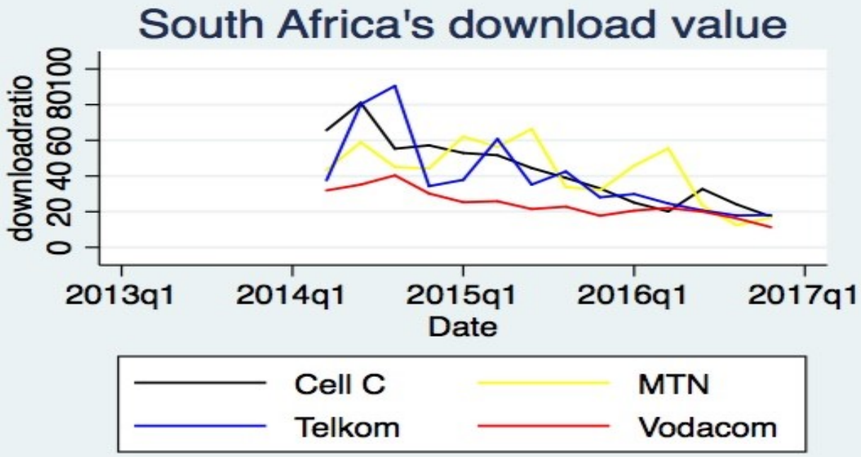


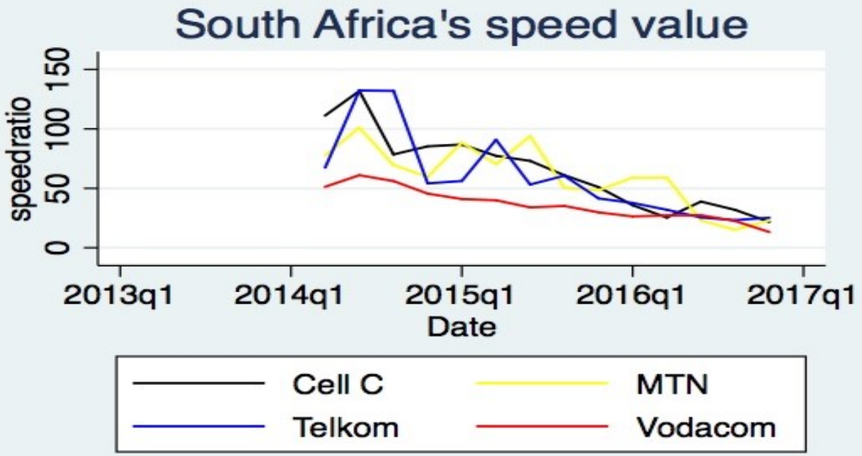
Figure 8: SA's cheapest prepaid mobile 1GB baskets compared to Africa's top performers (USD)

Source: RAMP Index, 2018

Quality adjusted prices, quality matters when assessing data market



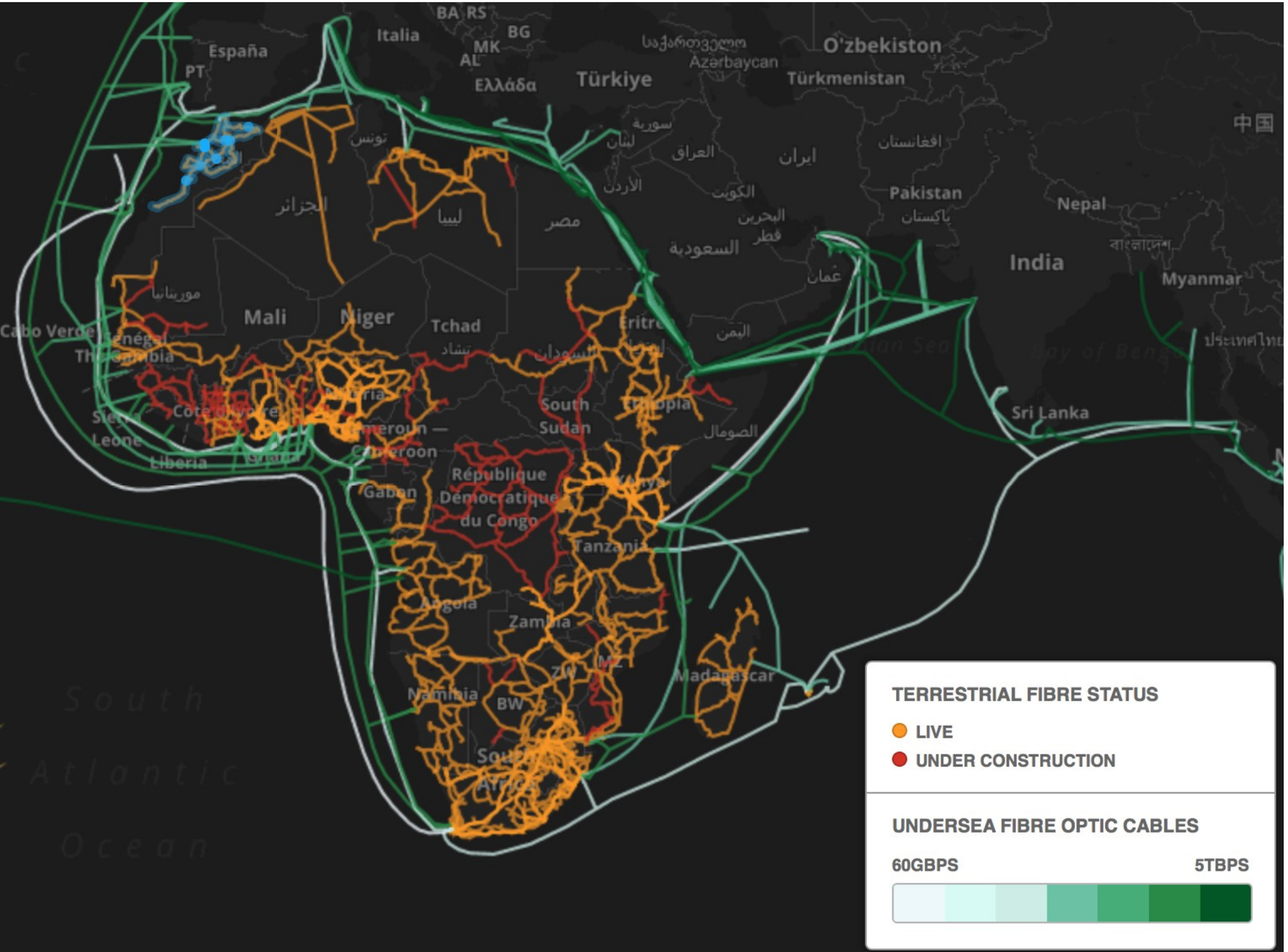




Represents the ratio between the 1GB data basket and the average download and upload speeds, shows that the two dominant operators Vodacom and MTN offer higher quality, respectively.

In the same period Telkom's quality was the lowest. However, since Q1 2016, it seems that smaller operators improved their quality, catching up with dominant operators in Q2 2016 (in line with increased network investments). Vodacom SA's high prices are accompanied by higher Internet speeds, compared to MTN SA and Cell C, which are performing less well on the measure based on average download/upload speed (in Mbps) divided by 1GB basket costs.

Expanding undersea / terrestrial bandwidth…



Even in countries where there is over 50% 3G coverage, less than 20% critical mass connected to enjoy network effects – demand challenges greater than supply side.

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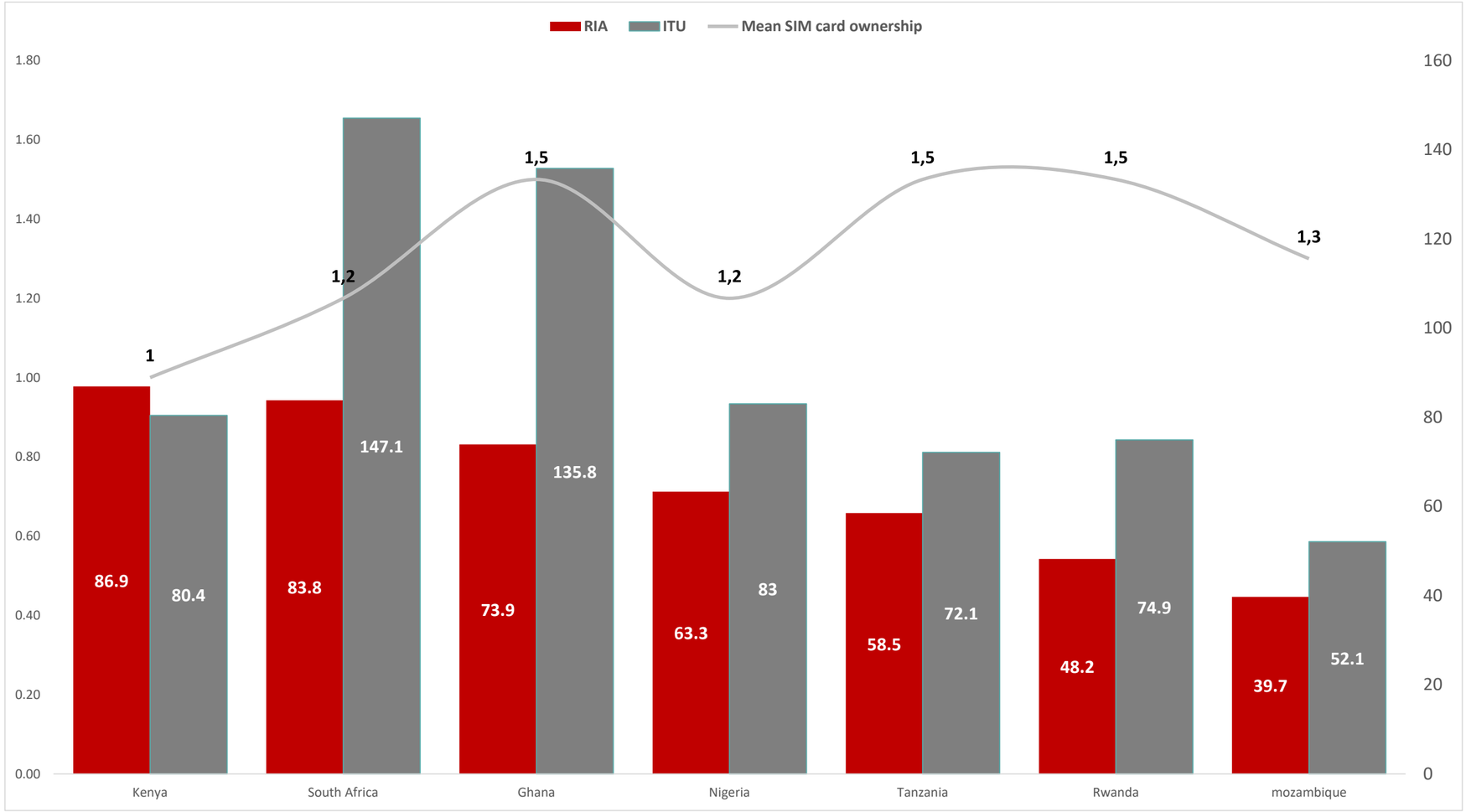
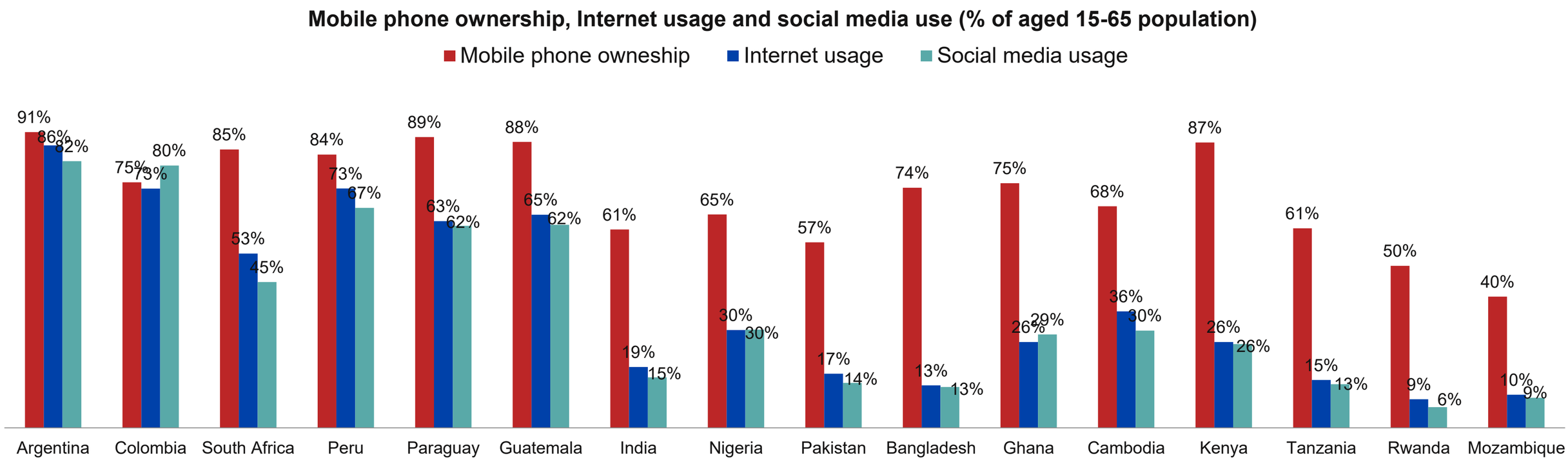
HOW WELL IS AFRICA CONNECTED?

Supply vs Demand-side indicators what's the story?



- Active SIMS vs Unique subscribers.
- Disaggregation by gender, income, education, location.

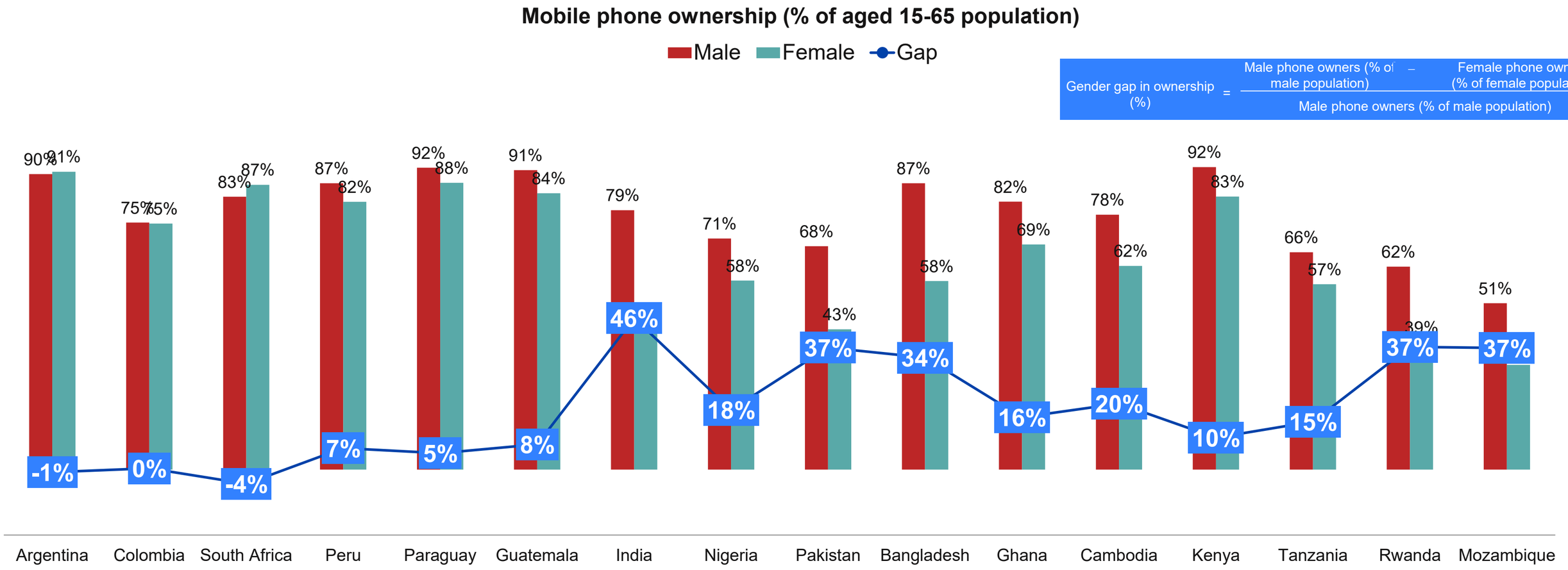
Higher connectivity in higher income countries; but Asia and Africa lag behind in Internet use



Q1: Do you own a mobile phone?
Q2: Have you ever used the Internet? (Gmail, Google, Facebook, email)
Q3: Do you use social media like Facebook, Whatsapp, Twitter etc?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
All respondents	1,240	1,425	1,610	1,478	1,357	1,407	5,069	1,706	2,002	2,020	1,145	2,123	1,179	1,102	1,118	1,091

There is a significant gender gap in ownership of phones



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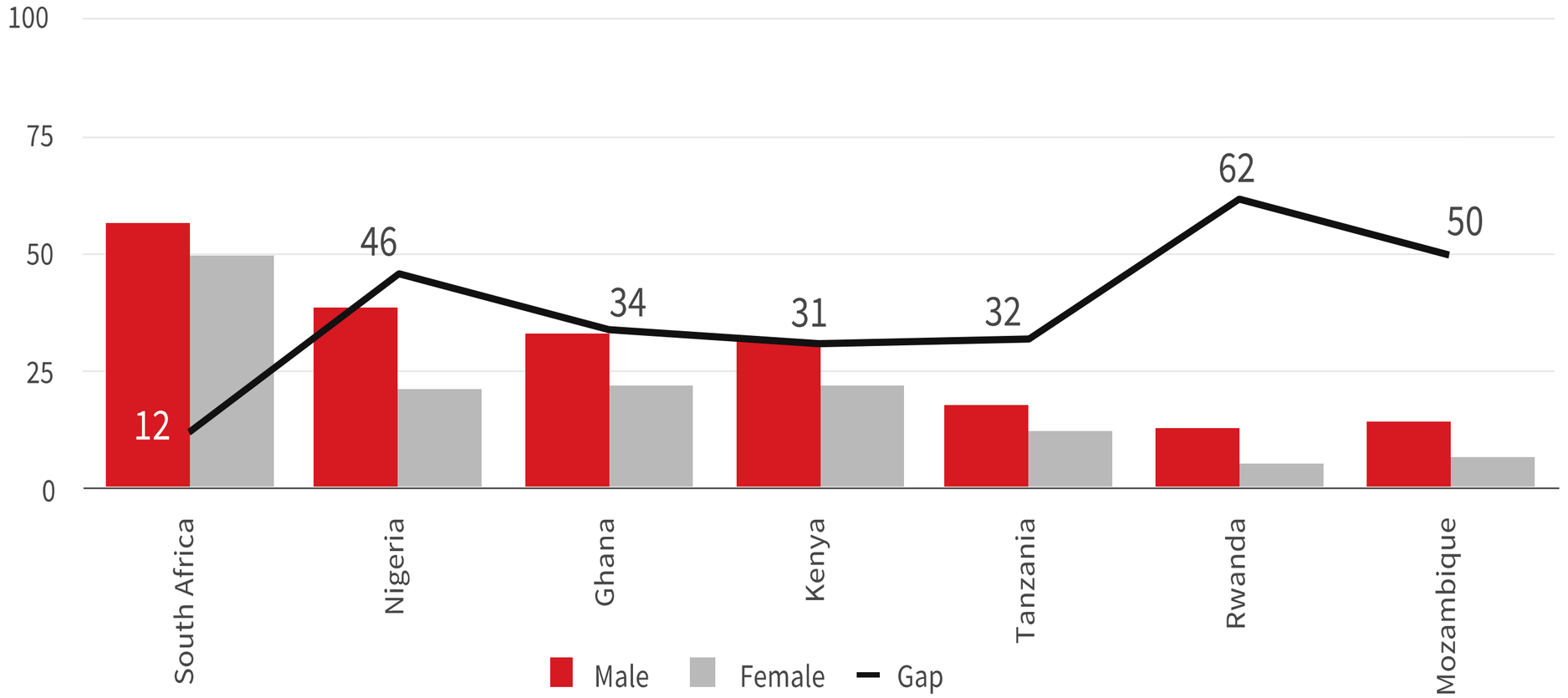
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All respondents	478	762	487	938	795	1,020	508	970	879	478	656	751	2,478	2,591	912	896	1,060	942	1,092	928	547	653	735	1,388	544	664	531	669	556	655	527	644

AFTER ACCESS

Gender gap in Internet in Africa

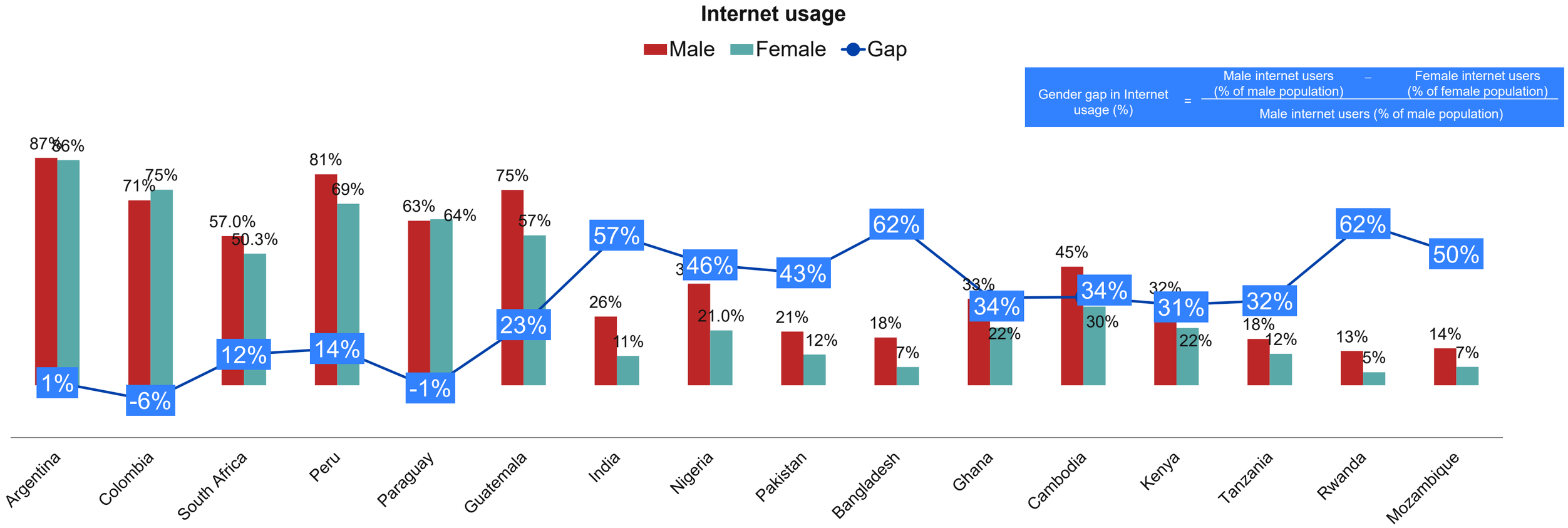


- As markets become saturate greater parity in ownership
- Smaller gap than Internet
- But other cultural, demographic, urbanisation, factors at play

Figure 21: Gender disparity in Internet use in South Africa and other African countries

Source: RIA After Access Survey data, 2017

.....and a higher gender divide in Internet use



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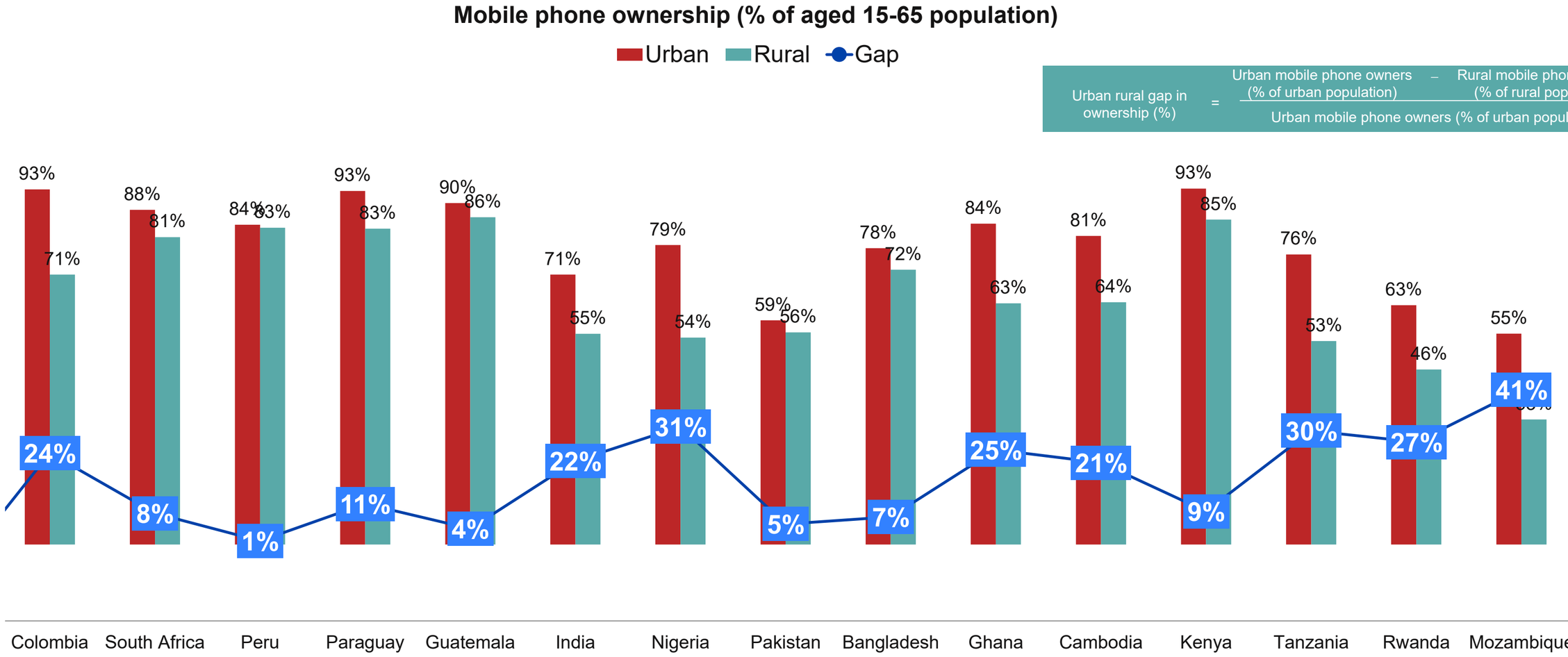
AFTER ACCESS

In addition to gender, there is also an urban-rural divide in mobile ownership



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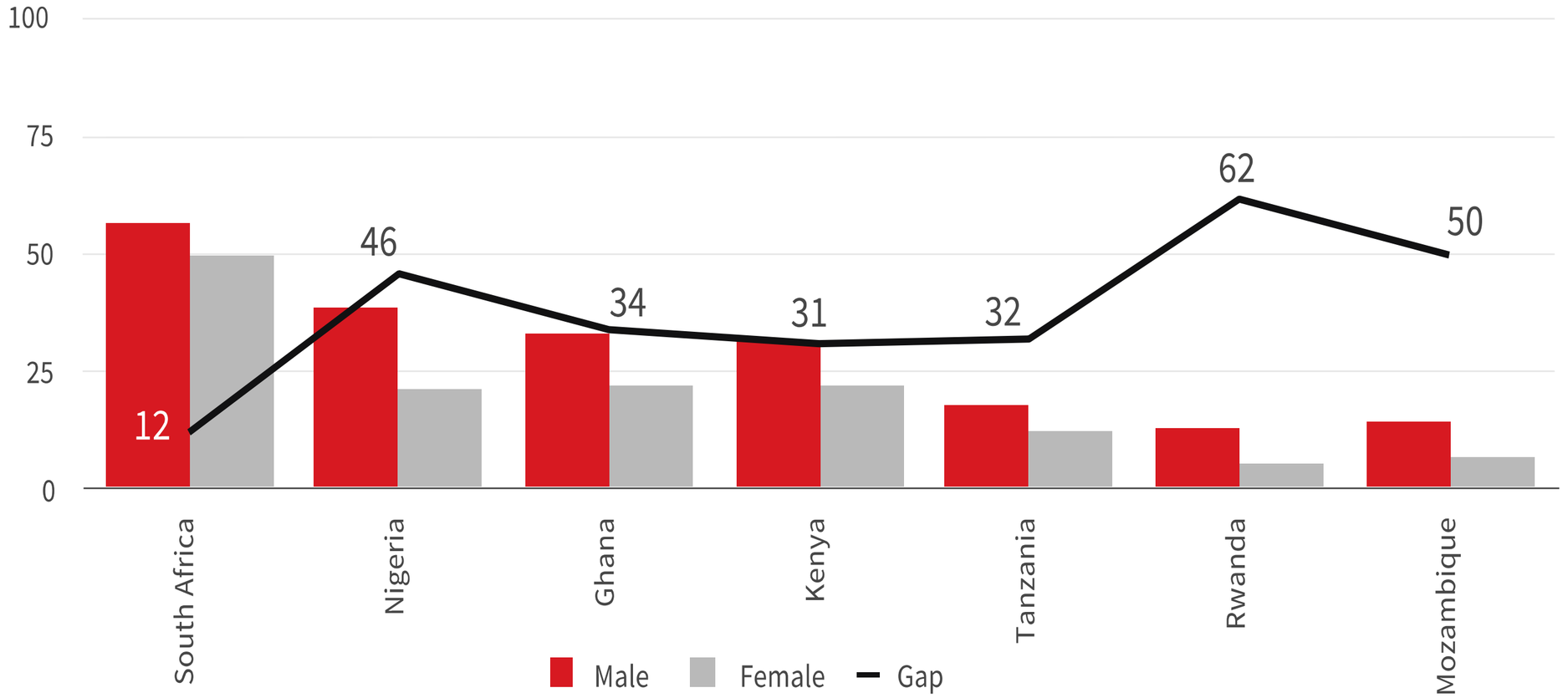
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
All respondents	1,208	32	986	439	1,050	765	1,178	300	824	533	550	857	2,200	2,869	1,147	661	793	1,209	808	1,212	721	479	897	1,226	727	481	720	480	711	500	718	453

AFTER ACCESS

Gender gap in mobile phone ownership



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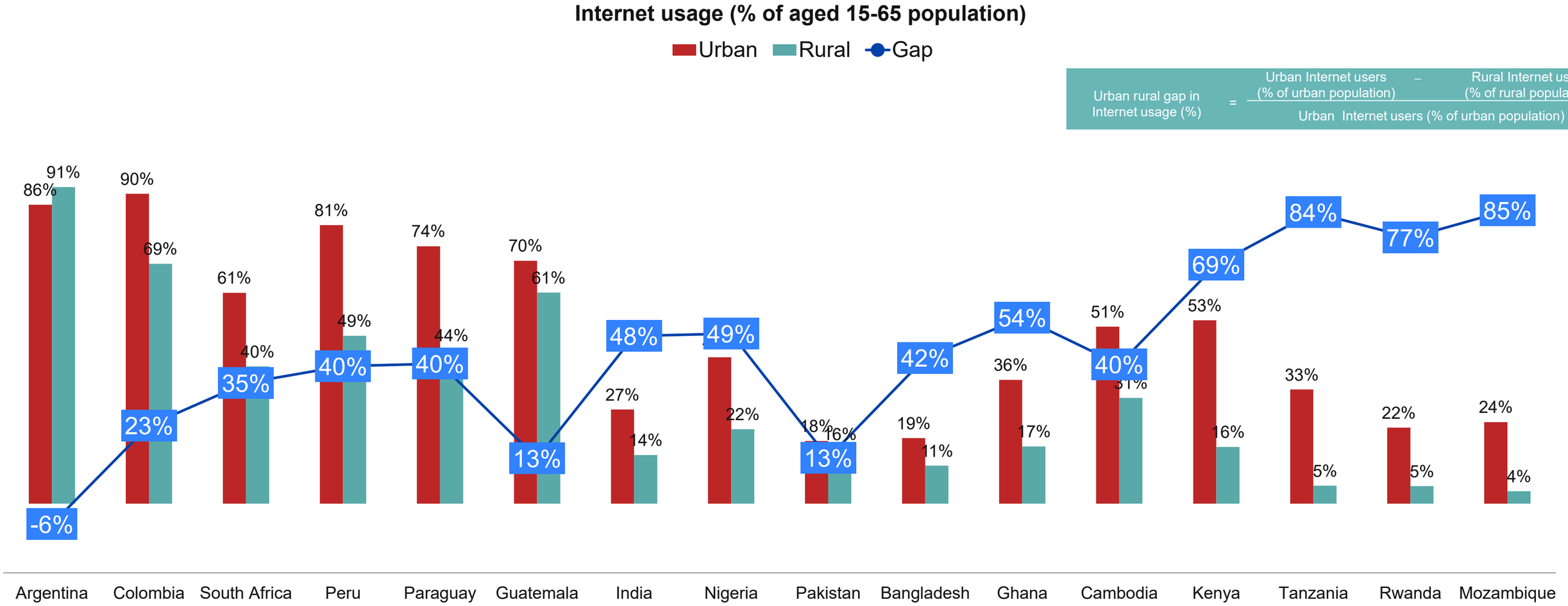

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	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
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AFTER ACCESS

Ownership and use of ICTs by income

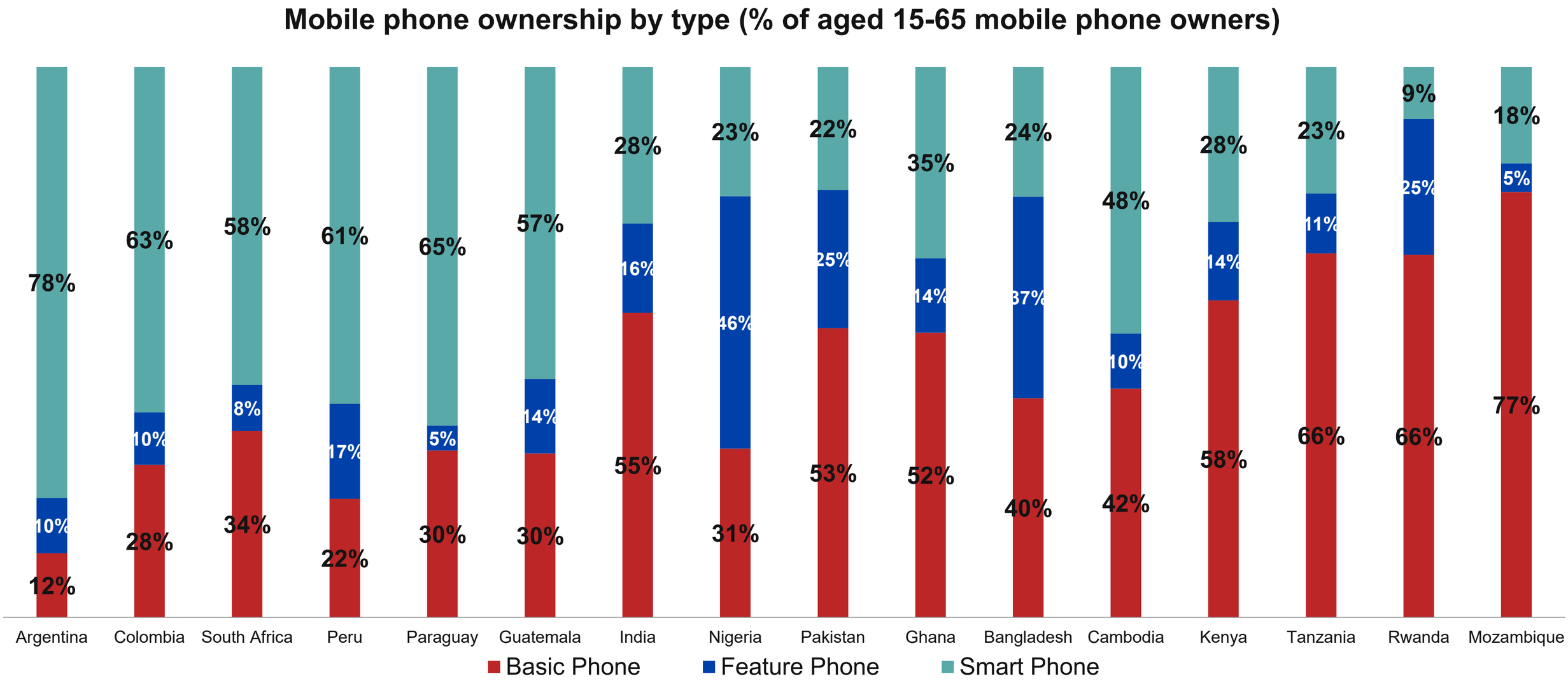
Digital paradox that more people come online greater inequality there is:

INCOME (ZAR)	MOBILE PHONE	SMARTPHONE	INTERNET
0 – 1 583	82%	45%	51%
1 584 – 7 167	81%	38%	37%
7 168 – 7 167	95%	74%	74%
7 168 – 1 6418	100%	93%	98%
16 419 – 33 333	100%	100%	100%
33 334 – 57 333	100%	100%	100%
57 334 – 123 417	100%	100%	100%
>123417	100%	100%	100%

Source: RIA After Access Survey data, 2017

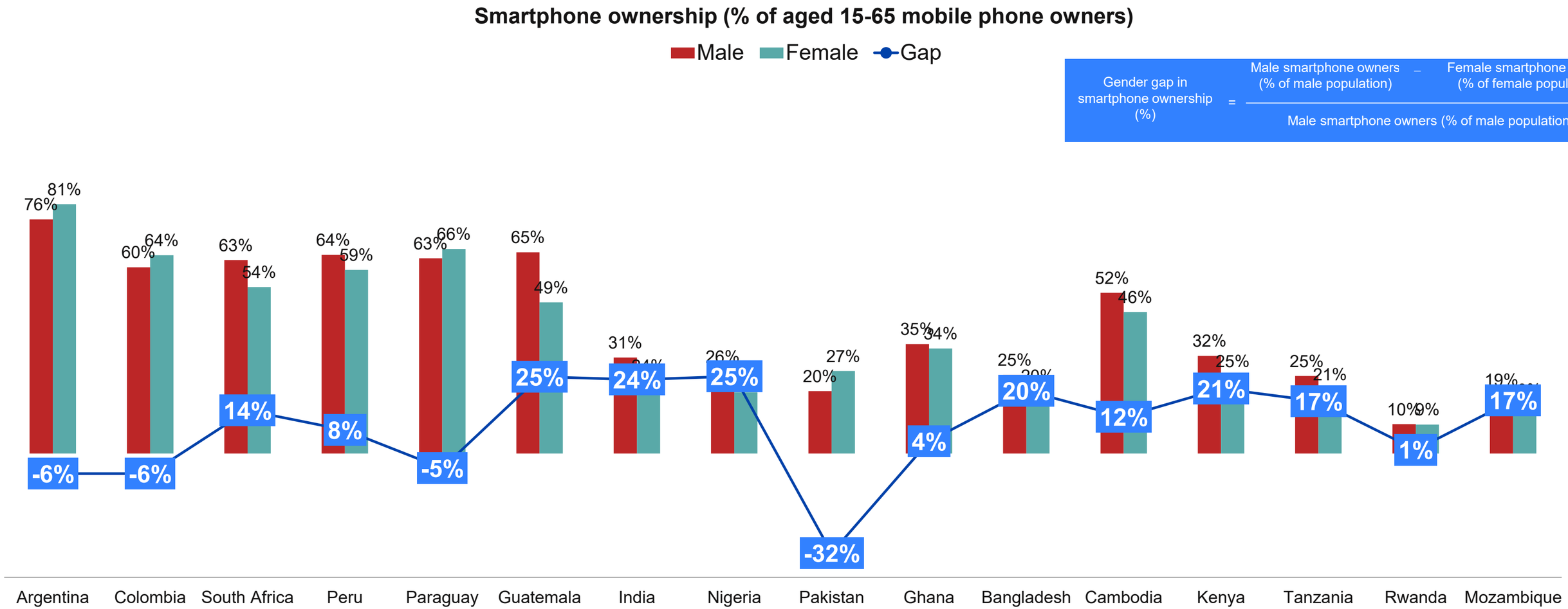
WHAT ARE THE BARRIERS TO GETTING ON LINE? AND STAYING ONLINE?

5. Mobile phone type



- *Higher smartphone ownership in higher income countries*

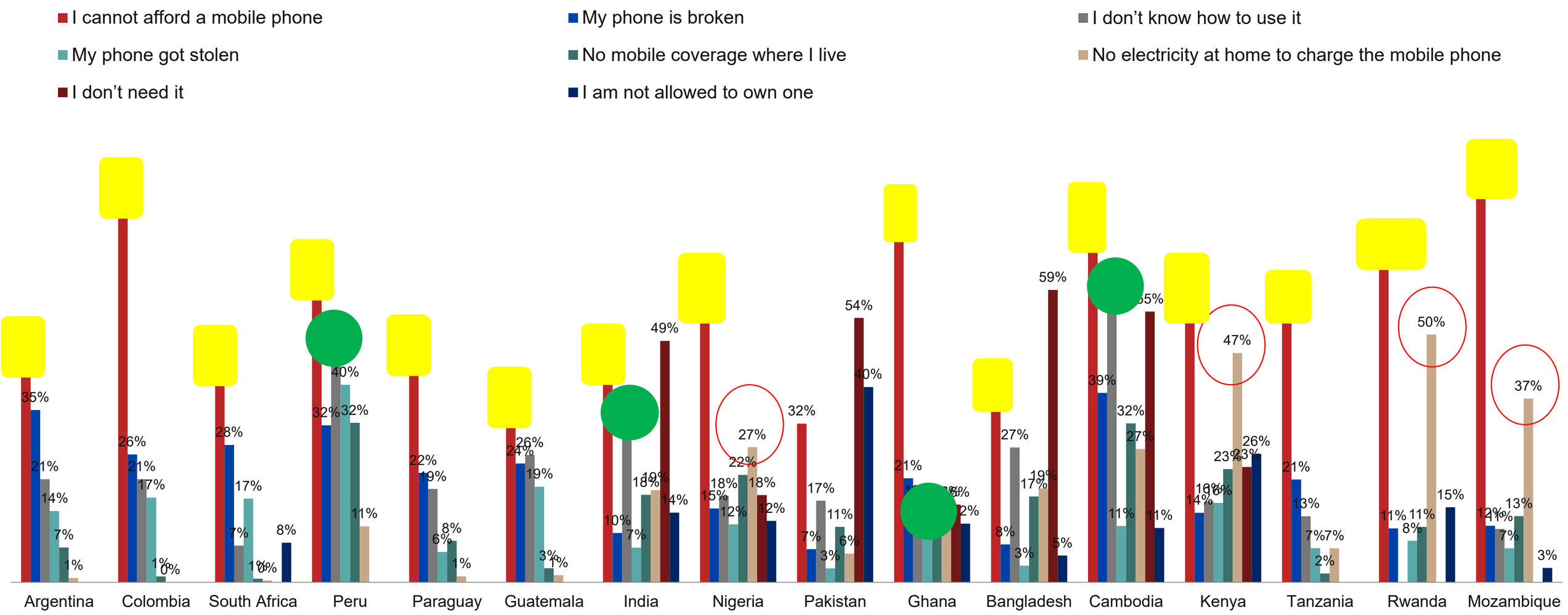
5. Mobile phone type – gender gap



- *The smartphone gap is smaller than the internet gap*

6. Barriers for mobile phone ownership

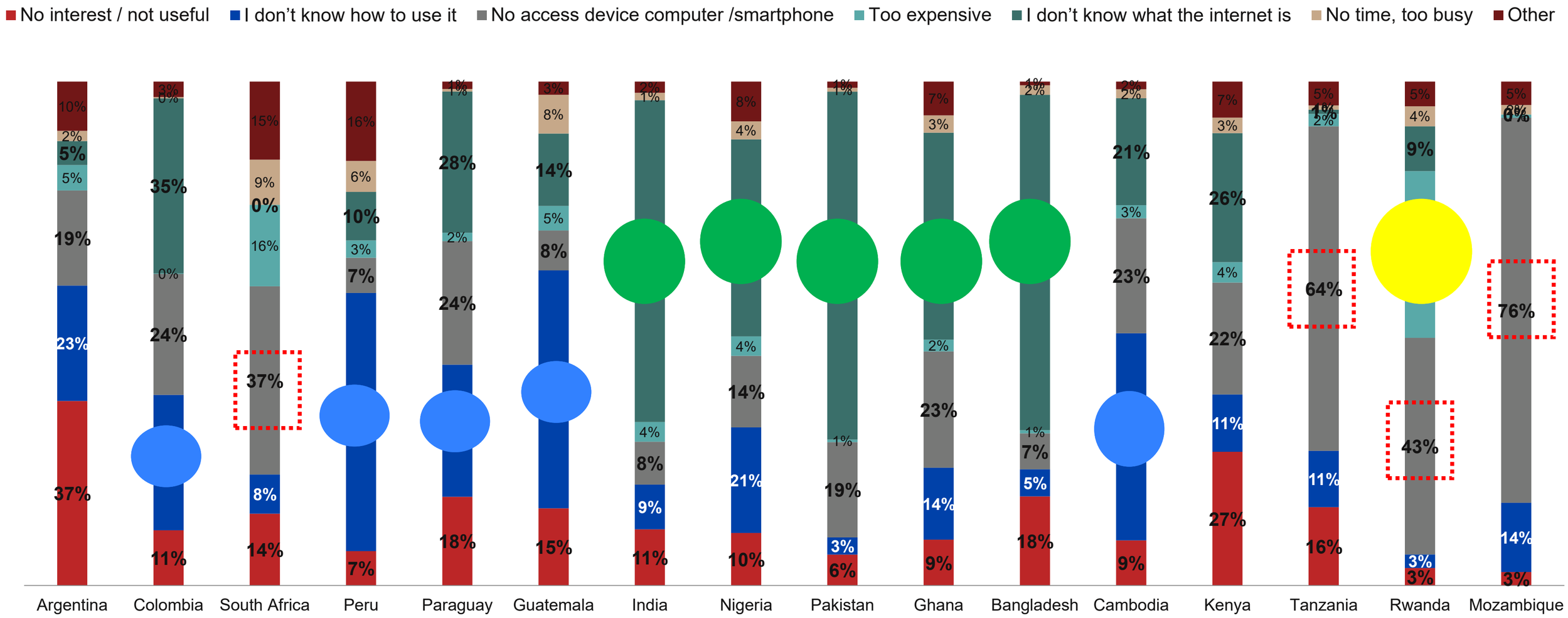
Reasons for not owning a mobile phone (% of aged 15-65 non-mobile phone owners)



- *Non owners: Asia - lack of need; LATAM - Affordability, Africa -Affordability*

6. Barriers for Internet use

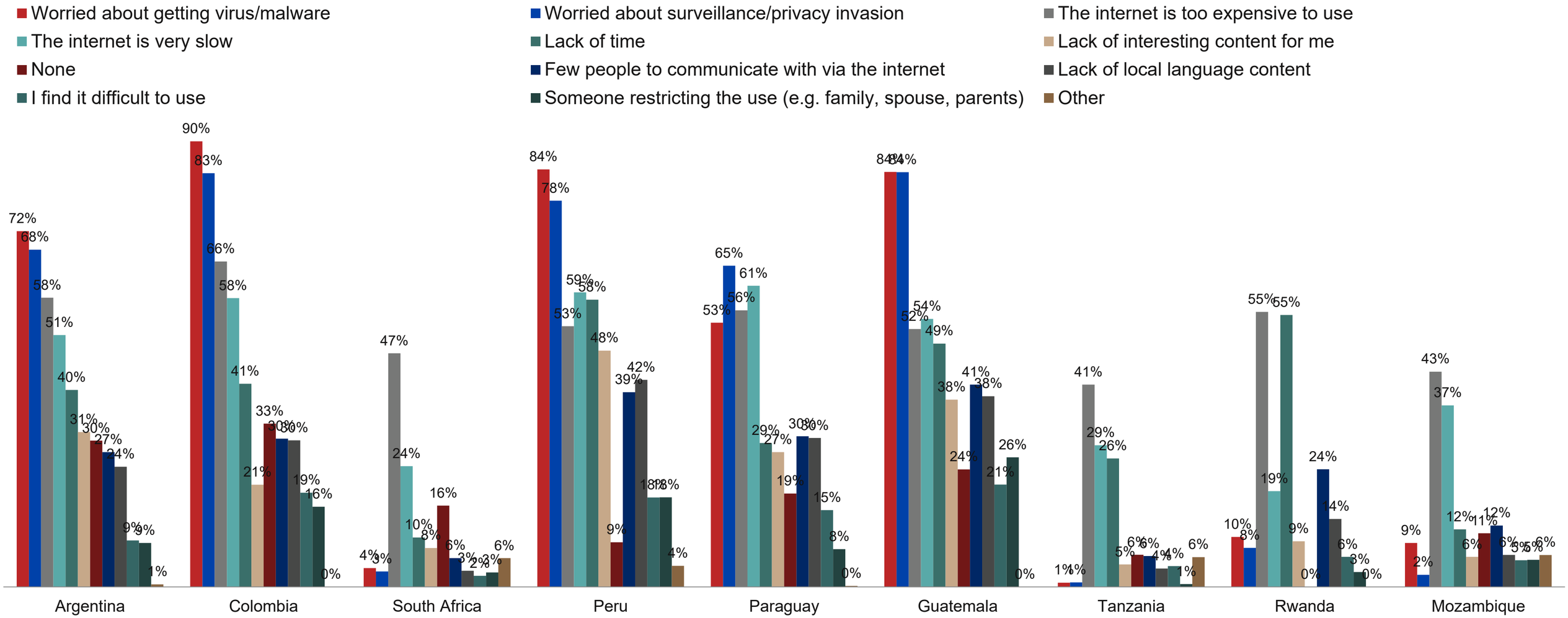
Reasons for not using the Internet (% of aged 15-65 non-Internet users)



- *Non users: Still a significant % of in Asia (and some in Africa) don't know what the Internet is. In LatAm, many don't know how to use it.*

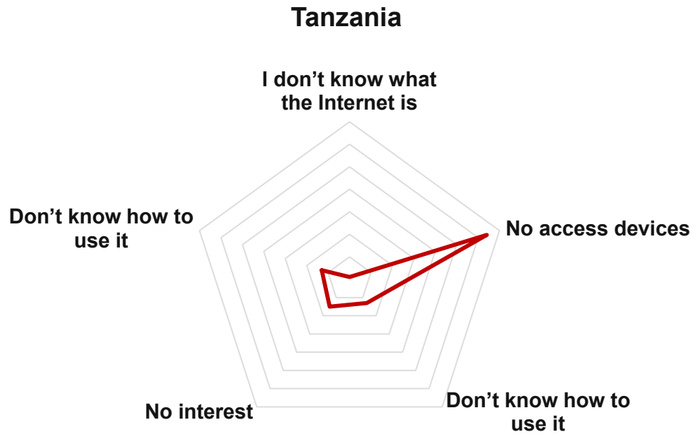
6. Barriers for MORE internet use

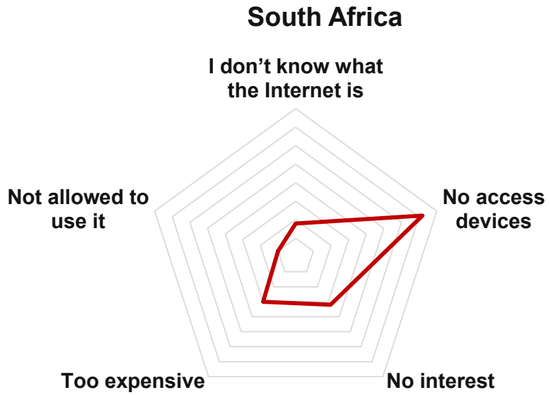
Limitations for Internet usage (% of aged 15-65 Internet users)

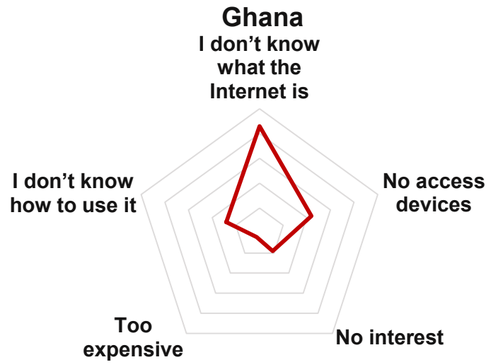


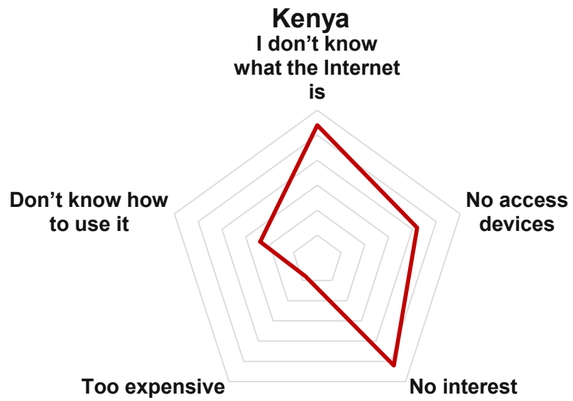
- *What limits more use among current users?: Cost & Speed in most African countries; malware & privacy concerns in LatA*

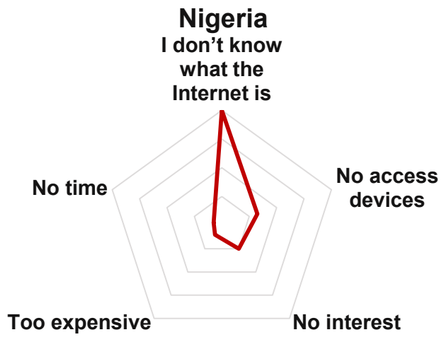
Reason for not using the Internet





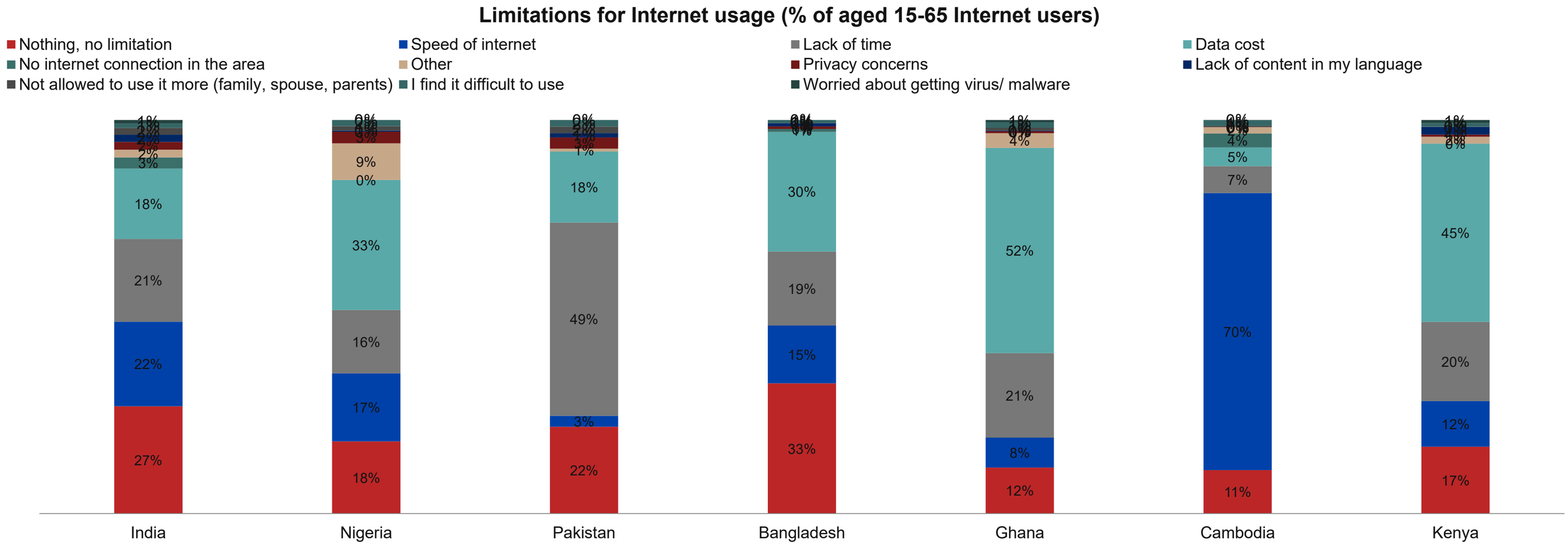






- Lack of devices and internet illiteracy are main inhibitor of Internet use

....Lack of time & data costs in Asian countries; and in the remaining African countries

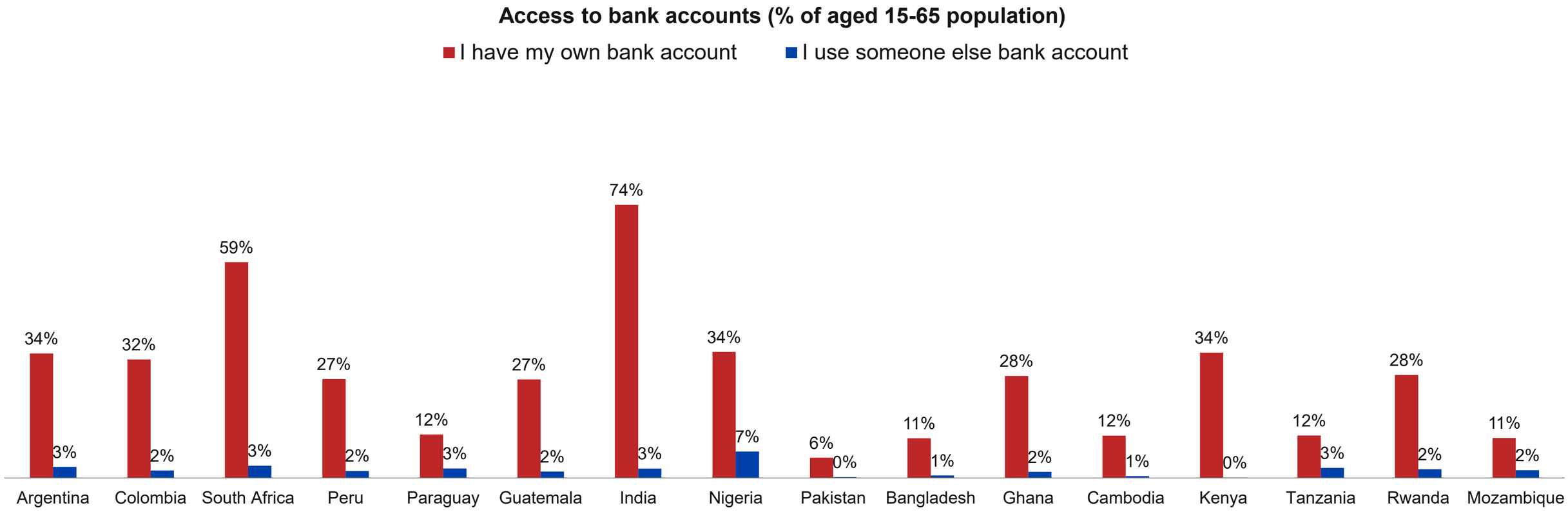


Q: What is your main limitation for your use of the internet? (Single response question)

Base	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya
Internet users	919	529	427	266	311	804	440

FINANCIAL INCLUSION: WHO IS BANKED,UNBANKED, USING MOBILE MONEY?

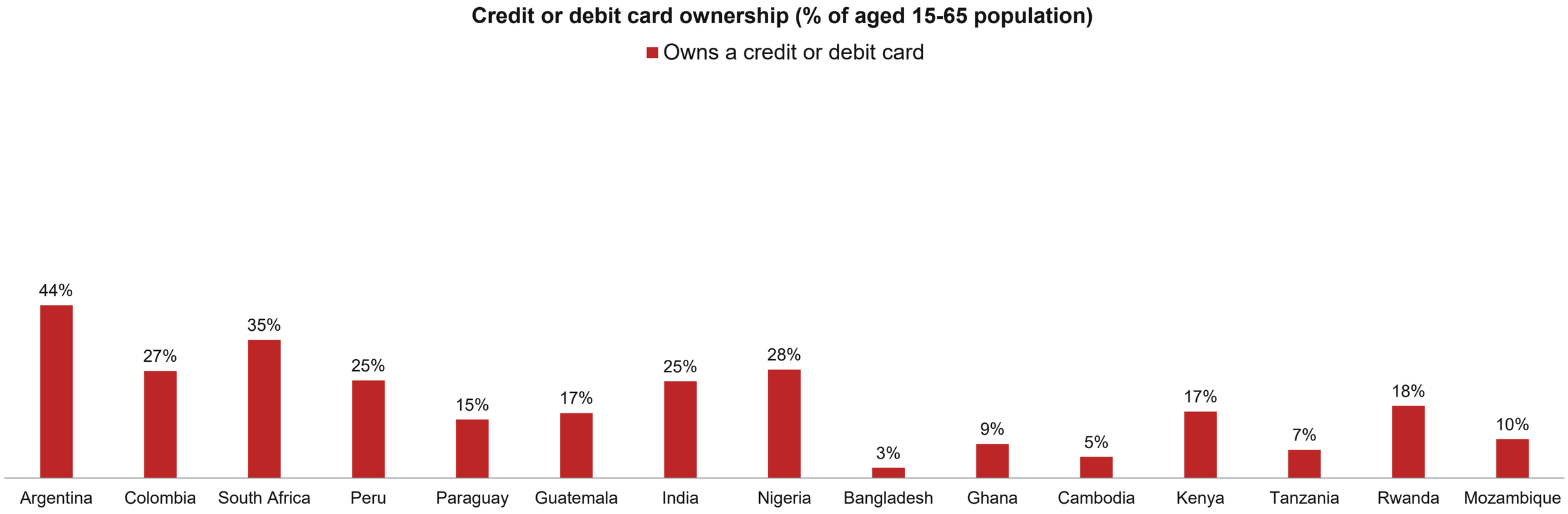
75%of 15-65 population in IN and 60 & in ZA have their own bank account. All others, less than 50% of the 15-65 aged are banked



Q1:Do you have access to a bank account?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
All respondents	1,240	1,425	1,610	1,478	1,357	1,407	5,069	1,706	2,002	2,020	1,145	2,123	1,179	1,102	1,118	1,091

Similarly, low credit & debit card ownership

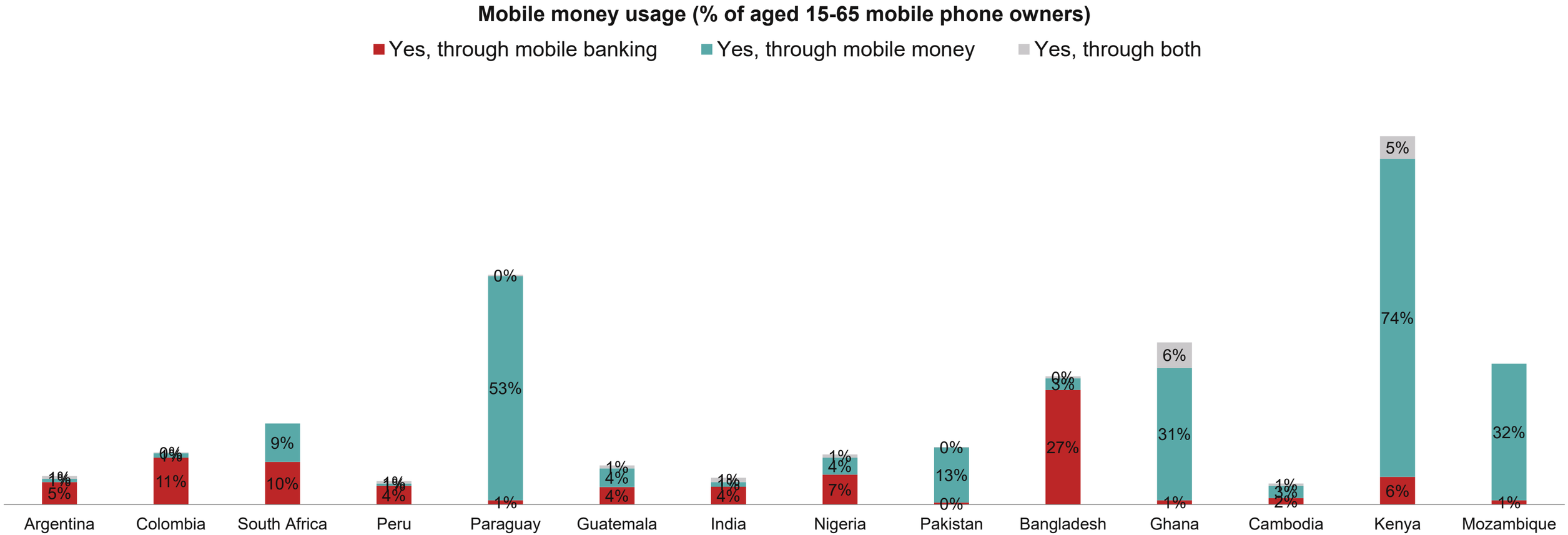


Q:Do you have a credit card or debit card??

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Bangladesh	Ghana	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
All respondents	1,240	1,425	1,610	1,478	1,357	1,407	5,069	1,706	2,020	1,145	2,123	1,179	1,102	1,118	1,091

Pakistan data excluded as this question was not administrated in Pakistan

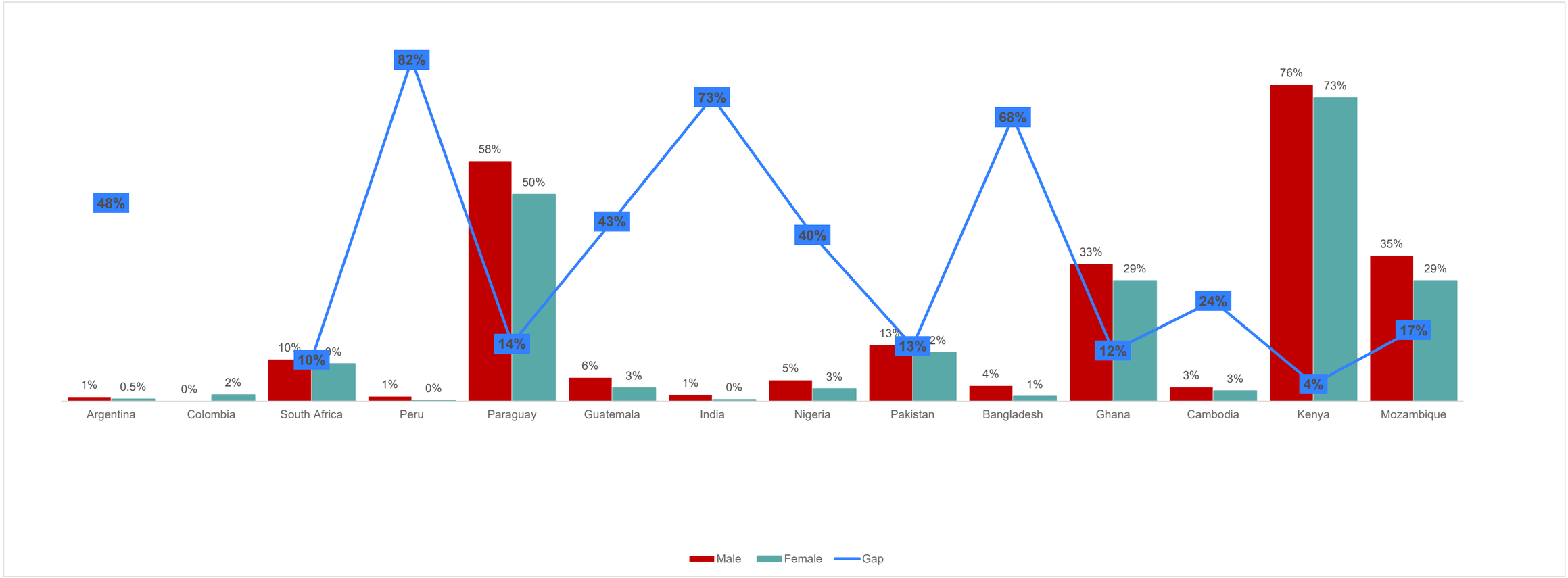
Mobile money: High use In Kenya, Ghana, Mozambique, South Africa and Paraguay. But low elsewhere.



Q: Do you ever use mobile phone for financial transactions: to send or receive money?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya	Mozambique
Mobile phone owners	1,116	1,297	1,552	1,234	1,209	1,214	3,252	1,180	1,208	1,531	934	1,526	1,074	667

Gender gap in mobile money use almost everywhere (except Argentina, Colombia)



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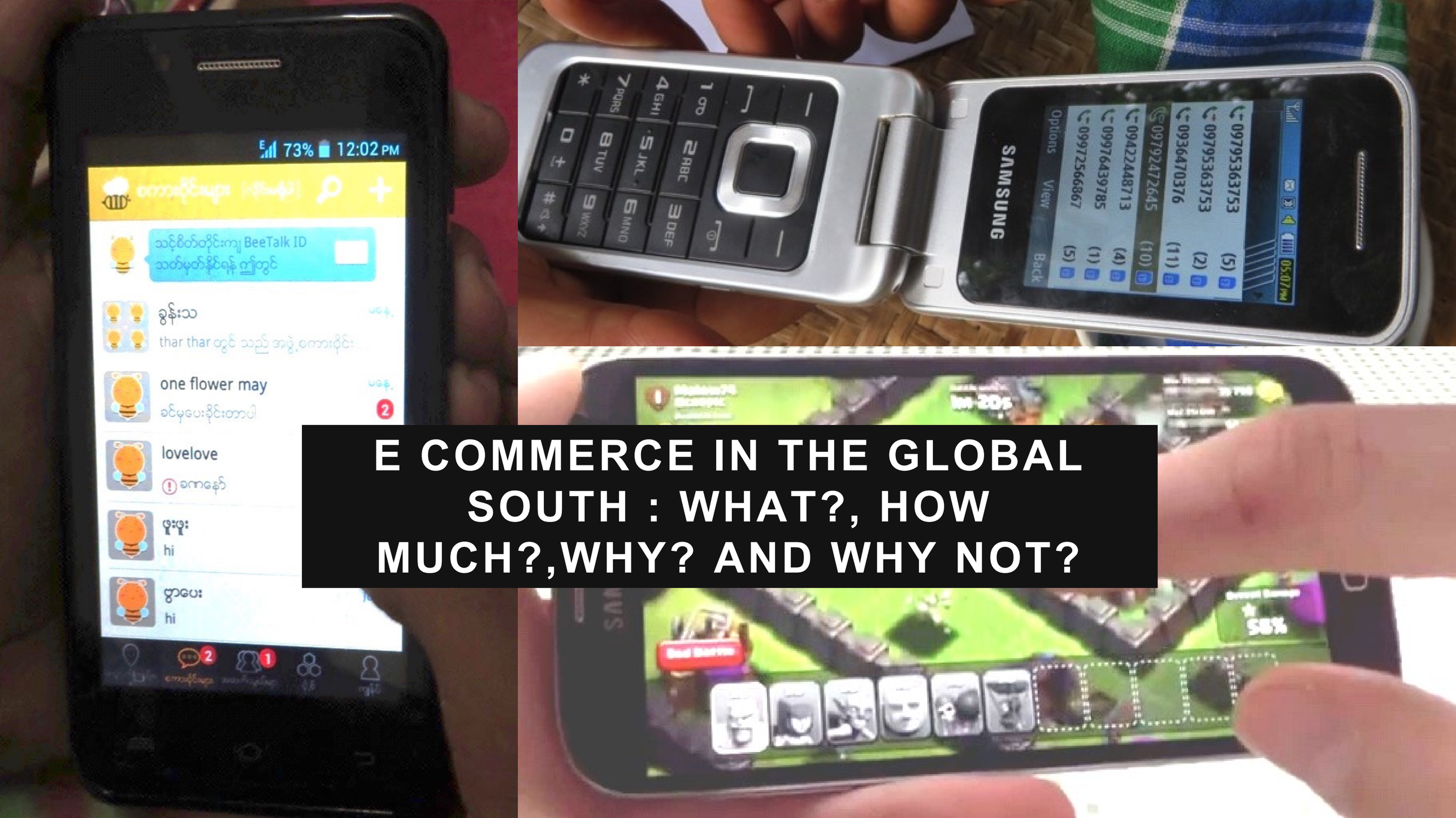
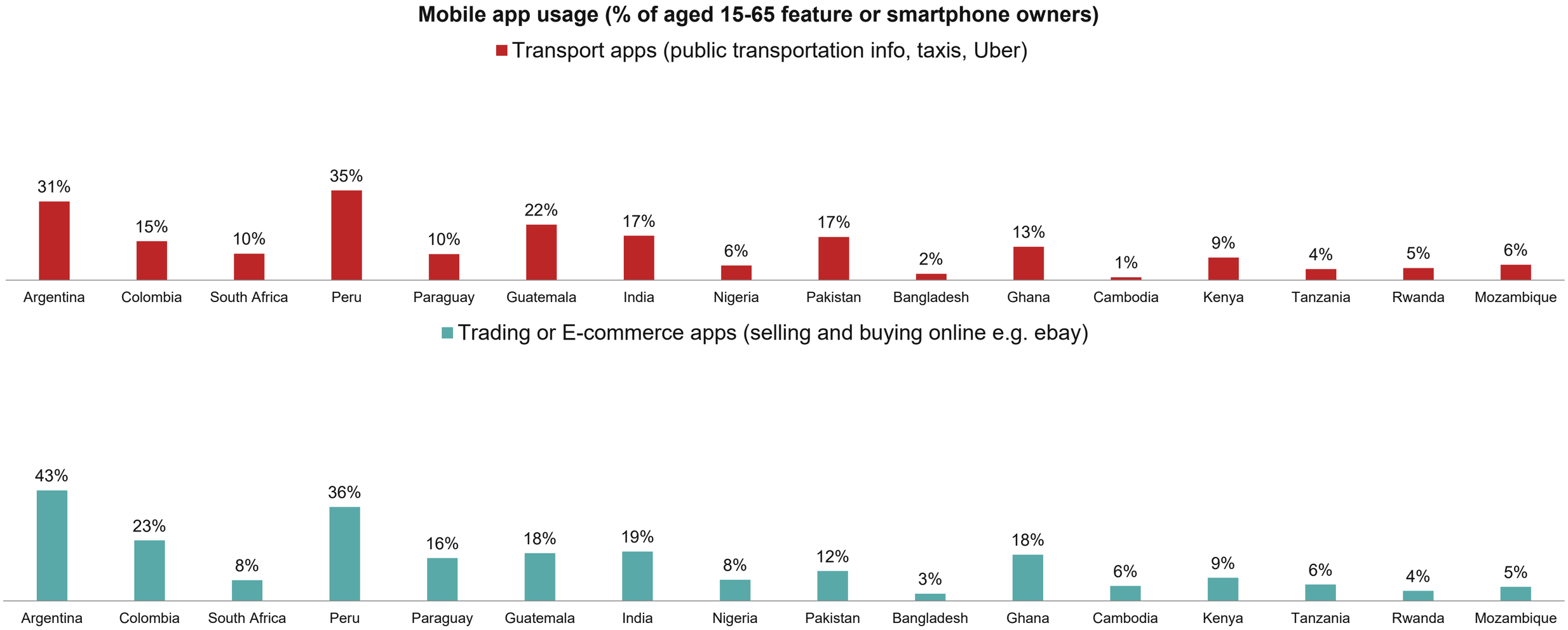
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Mobile phone owners	425	691	438	859	666	886	443	791	772	437	586	628	2,000	1,252	660	520	777	431	962	569	452	482	597	929	507	567	340	327


E COMMERCE IN THE GLOBAL SOUTH : WHAT?, HOW MUCH?,WHY? AND WHY NOT?

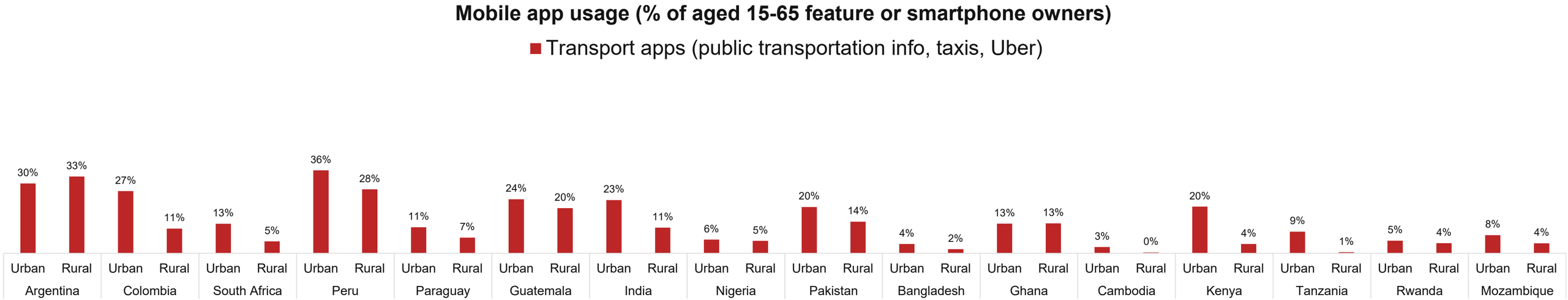
Use of trading & transport apps: Best performance from Latin American countries. Ghana outlier (good performance) in Africa

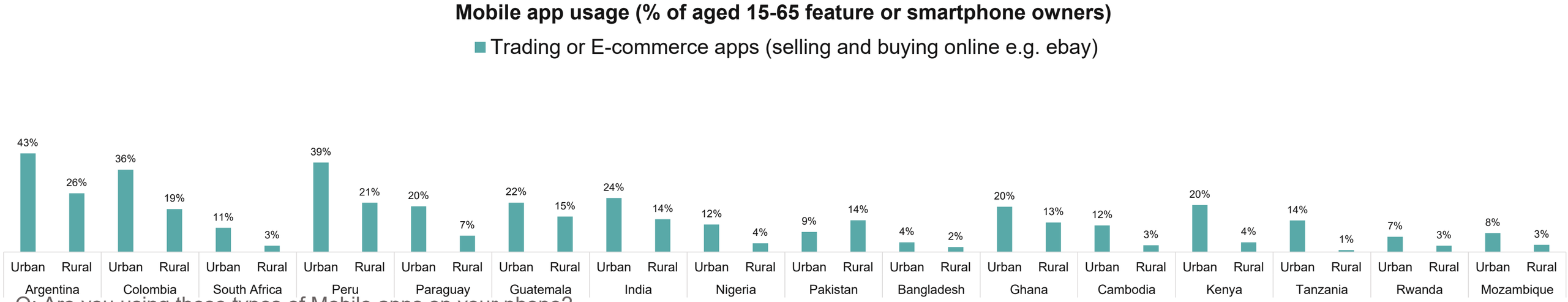


Q: Are you using these types of Mobile apps on your phone?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
Feature or smartphone owners	982	1,020	1,552	972	809	846	1,397	795	571	936	458	878	1,074	789	660	667

Overall, higher use of transport and trading apps in urban areas

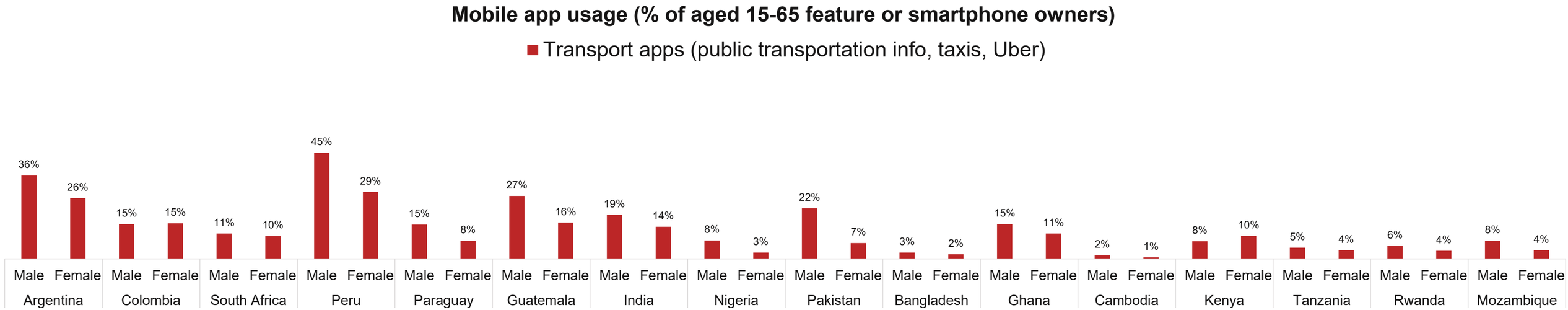


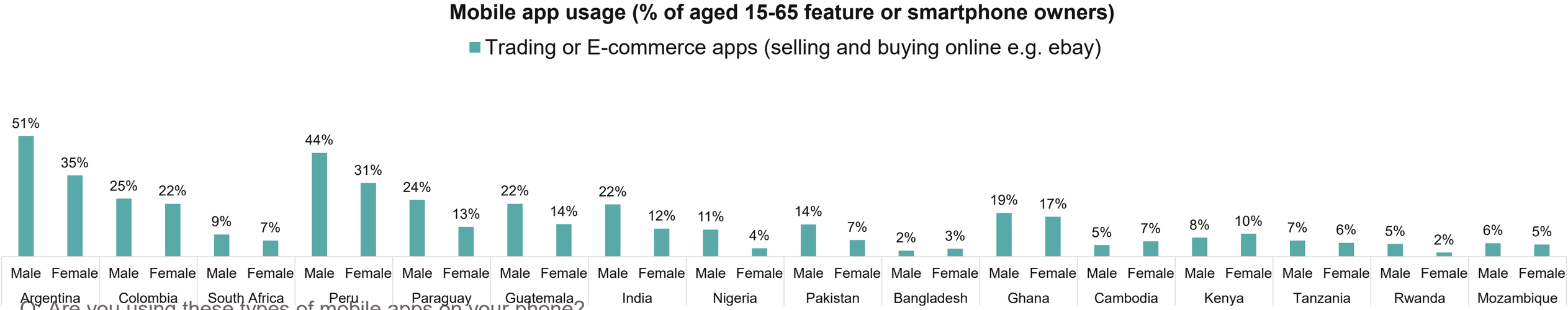


Q: Are you using these types of Mobile apps on your phone?

Base	Argentina		Colombia		South Africa		Peru		Paraguay		Guatemala		India		Nigeria		Pakistan		Bangladesh		Ghana		Cambodia		Kenya		Tanzania		Rwanda		Mozambique	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Feature or smartphone owners	954	28	755	265	919	633	825	147	578	231	362	484	711	686	575	220	272	299	417	519	332	126	465	413	678	396	555	234	443	217	498	169

And higher transport & trading app usage among men (compared to women) in most countries





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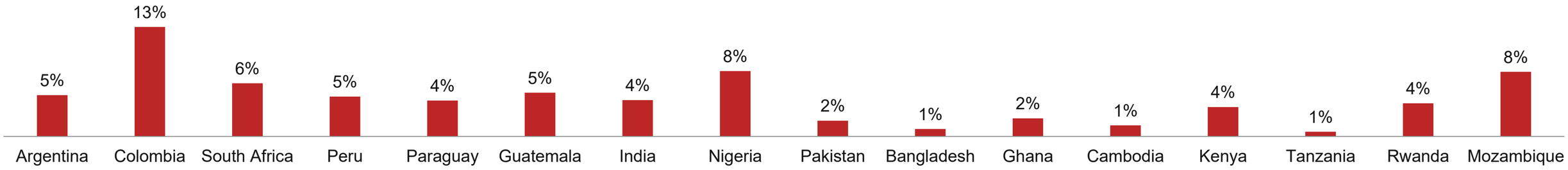
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Feature or smartphone owners	358	624	343	677	666	886	354	618	534	275	448	398	931	466	467	328	364	207	616	320	241	217	389	489	507	567	386	403	365	295	340	327

Platform use for selling in of labor: low overall, though still a large absolute number in Colombia.

Usage of platforms: selling (% of aged 15-65 internet users)

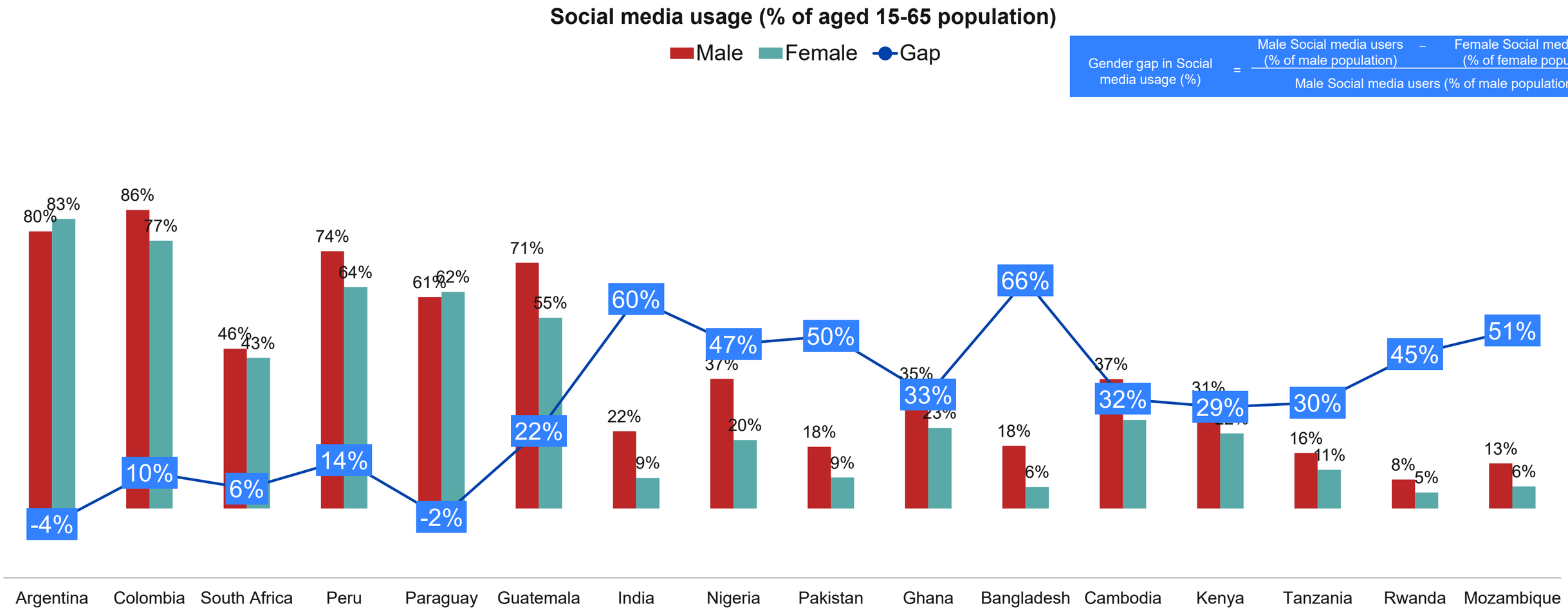


Q: Some people find paid jobs or tasks by connecting directly with people who want to hire them using a website or mobile app. In the last year, have you earned money by taking on jobs of this type?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Bangladesh	Ghana	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
Internet users	1,006	1,192	829	1,120	886	1,104	919	537	427	266	311	804	440	266	172	238

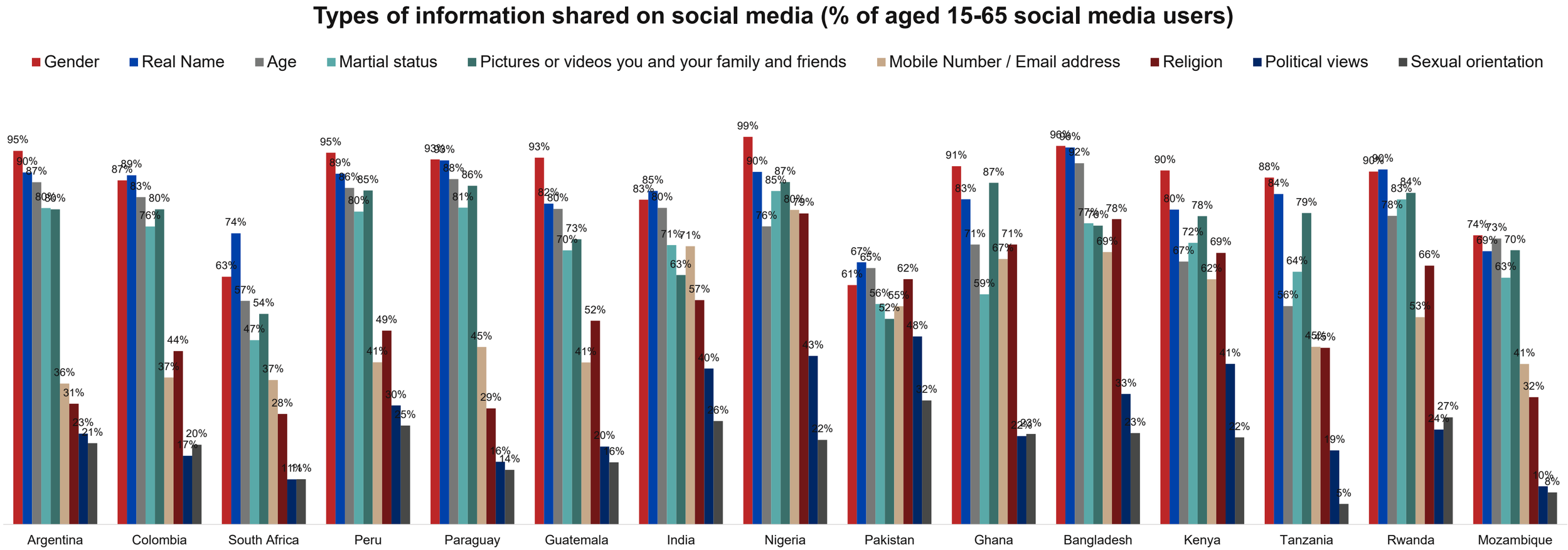
SOCIAL MEDIA: WHO IS DOING WHAT AND HOW MUCH ON SOCIAL MEDIA?

4. Social media use – gender gap



- *The social media gender gap reflects the internet gender gap*

Low number of people shared religion, political view and sexual orientation in social media



Q: What information do you share on Social media (profile eg) ?

Base	Argentina	Colombia	South Africa	Peru	Paraguay	Guatemala	India	Nigeria	Pakistan	Ghana	Bangladesh	Cambodia	Kenya	Tanzania	Rwanda	Mozambique
Social media users	993	1,246	669	999	802	878	754	496	369	323	251	680	423	241	156	230

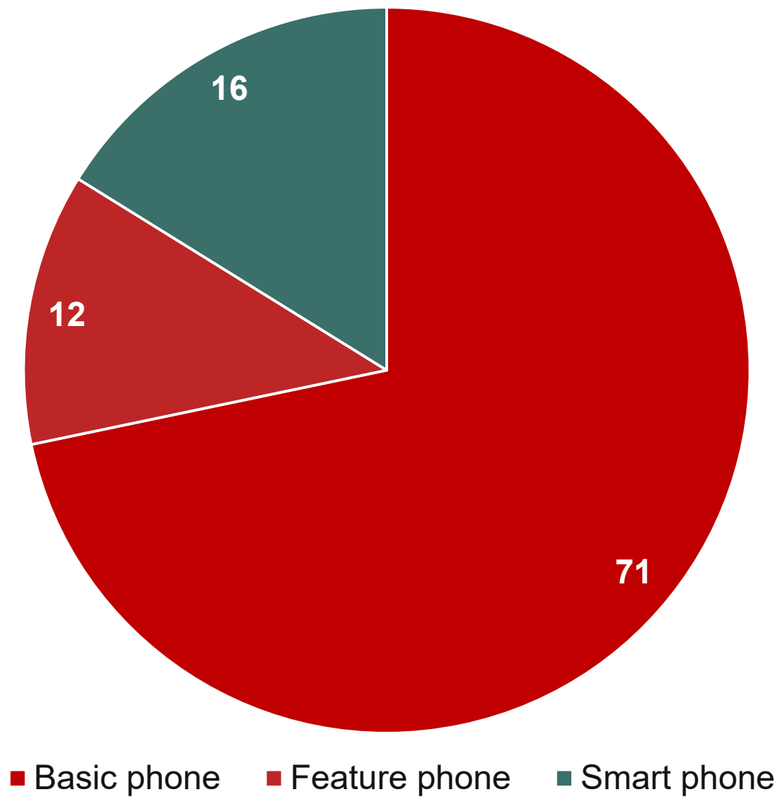
Social media taxes: state coordination

Tragedy of social networking, blogging taxes

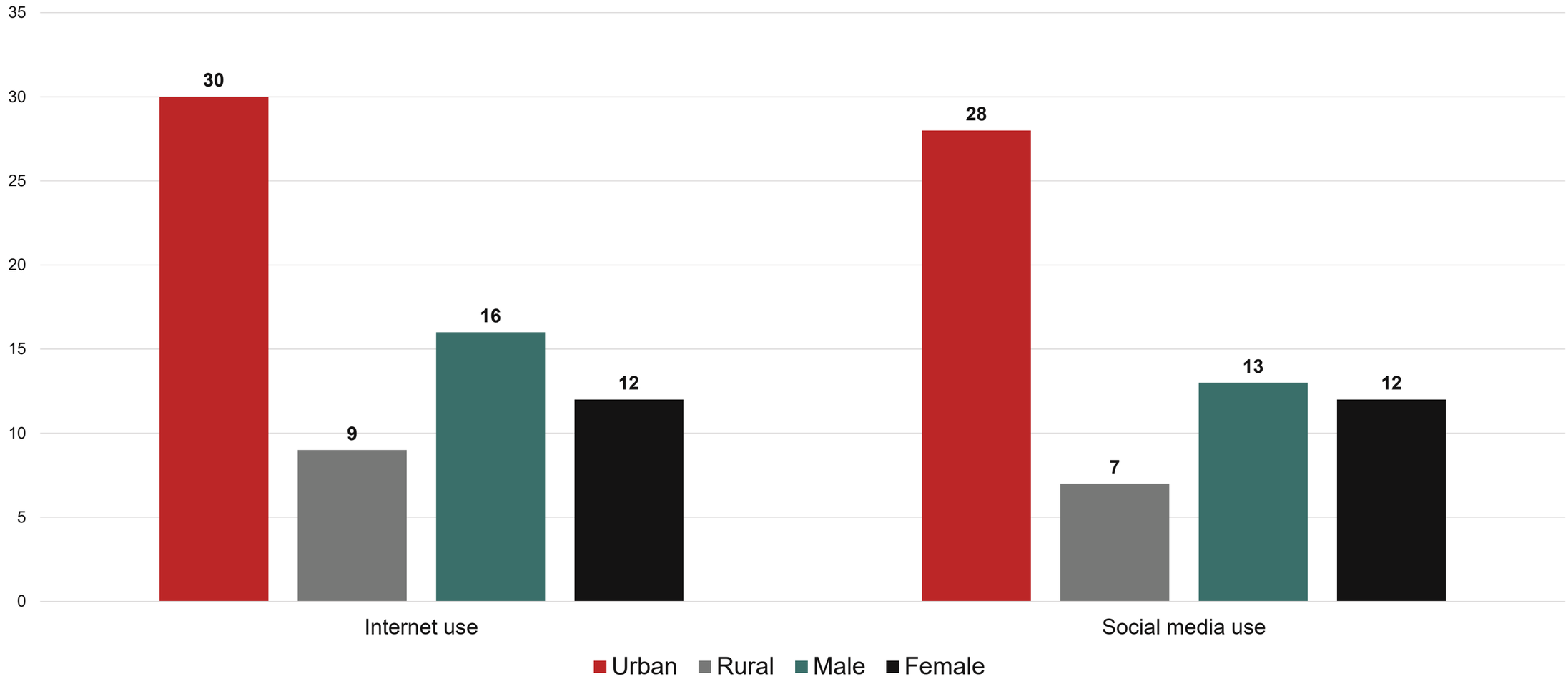
To curb ‘gossip’ on social media platforms, all Internet subscribers in Uganda are to pay a tax of 200 Ugandan shillings (USD0.05) daily to use social media applications such as Facebook, Twitter, Instagram, WhatsApp and Skype, among others.

- A tax which requires a user to pay USD1.5 per month or USD18.00 per year for daily access of social media apps in addition to the ordinary cost of data.
- All mobile money transactions were intended to be taxed one percent tax but were reviewed down to 0.5%.
- Traditionally secondary and primary tax of 30% on products and services.
- Those who are connected are educated and employed and in a position to monitor, mobilise and critique

Uganda Mobile Peneteration – 48% - by pphone type



Uganda's Internet (14%) and social media use (12%)



Regressive taxes penalize poor, constrain take up

Income percentiles	Income (USD)	Cheapest 1 GB (USD)/Income	1GB + social media tax/ income
25%	5,23	53%	82%
50%	21,47	13%	19%
75%	65,47	4%	6%
90%	130,95	2%	3%

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Unintended consequences of social networking tax

- using Research ICT Africa Mobile Pricing (RAMP) index, the cheapest 1GB of data in Uganda is USD2.77.
- Even though this makes Uganda one of the cheapest countries in terms of data products, majority of Ugandans do not use the internet (78%, ITU, 2016).
- Effecting this tax will increase the price of the cheapest data product by a margin of USD1.5 to USD4.27, making it even more unaffordable.
- Furthermore, those who marginally afforded Internet services will be priced out of the market, increasing the percentage of the unconnected.
- Those who are connected are educated and employed and in a position to monitor, mobilise and critique

Digital Paradox

- More people connected greater digital equality
- Determinants of gender inequality - education and income
- Cultural factors not reveal directly by quantitative data – Asia
- Intersectionality
- Reduce digital inequality – structural inequality
- Short term strategies

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Recommendations

Long terms solutions lie in demand stimulation, short term things can be done…

- Reduce secondary taxes, make services more affordable drive usage, more profitable, greater company an general taxes, reinvest in network extension, improve quality more favourable conditions for digital economy
- Scrap USO and enable secondary spectrum use and community, micro networks
- **remove all excise duties** on feature and entry level smart phones
- adopt wider digital economy approach – create **open data, access to big data**
- enable **public and private extension of free public Wi-F**i to towns and rural with the connection of all public buildings;

Research made possible by IDRC

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