

Gendered Nature of Digital Inequality: evidence for policy considerations

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Gender, SDG's, data – digital substitution

Despite potential of access to mobile phones and the Internet to improve livelihoods, lives and life opportunities very patchy demand-side, disaggregated data on gender and digital inclusion and equity.

- ▶ there is only very patchy gender data for evidence-based digital policy formulation.
- ▶ pandemic has highlighted the critical need for digital substitution to mitigate the devastating effects of the pandemic and lockdowns, bolstering calls by the UN Secretary General for a New Digital Compact.
- ▶ The pandemic has revealed the absence of particularly gender data in some of the most basic indicators and the need for systematic digital data collection that can be disaggregated.
- ▶ little way of knowing the progress being made towards the SDGs and the ICT sub-targets that underpin them making it impossible to assess the progress being made towards realising them

Global South – Demand-side analysis

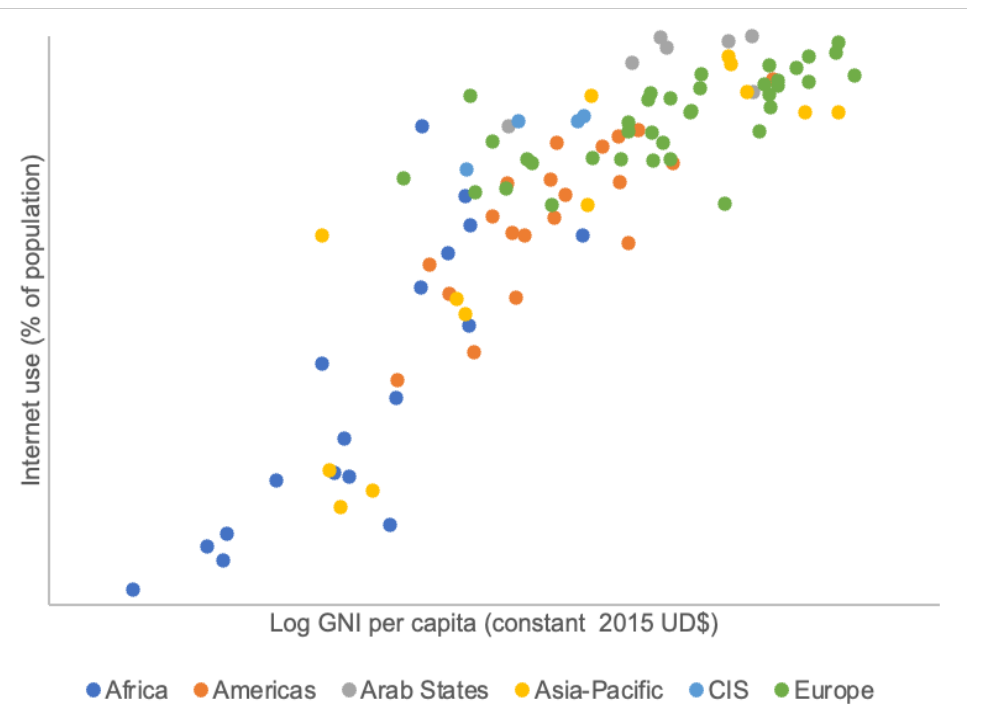
Women's access (ownership mobile phone/Internet) overall found to be lower than for men, both for individuals and when looking at the gender-ownership of small businesses

- ▶ the main barrier to Internet access is the price of the smart device - main constraint on use is the price of data.
- ▶ Internet uptake and intensity of use correlates with the level of education, and its corollary, income.
- ▶ concentration of women amongst those marginalised from digital services, applications and platforms is primarily explained by their lack of education and income.
- ▶ The lack of access to education and income may be determined by social, cultural, religious and biological factors

International

Data reveal stark differences in the capacity to access the Internet, across different regions, across different countries within regions and across different groups within countries but broadly track GDP per capita as does gender (but high performers and low performer within bands indicates unquantifiable factors but also suggesting the potential of policy to change digital outcomes.

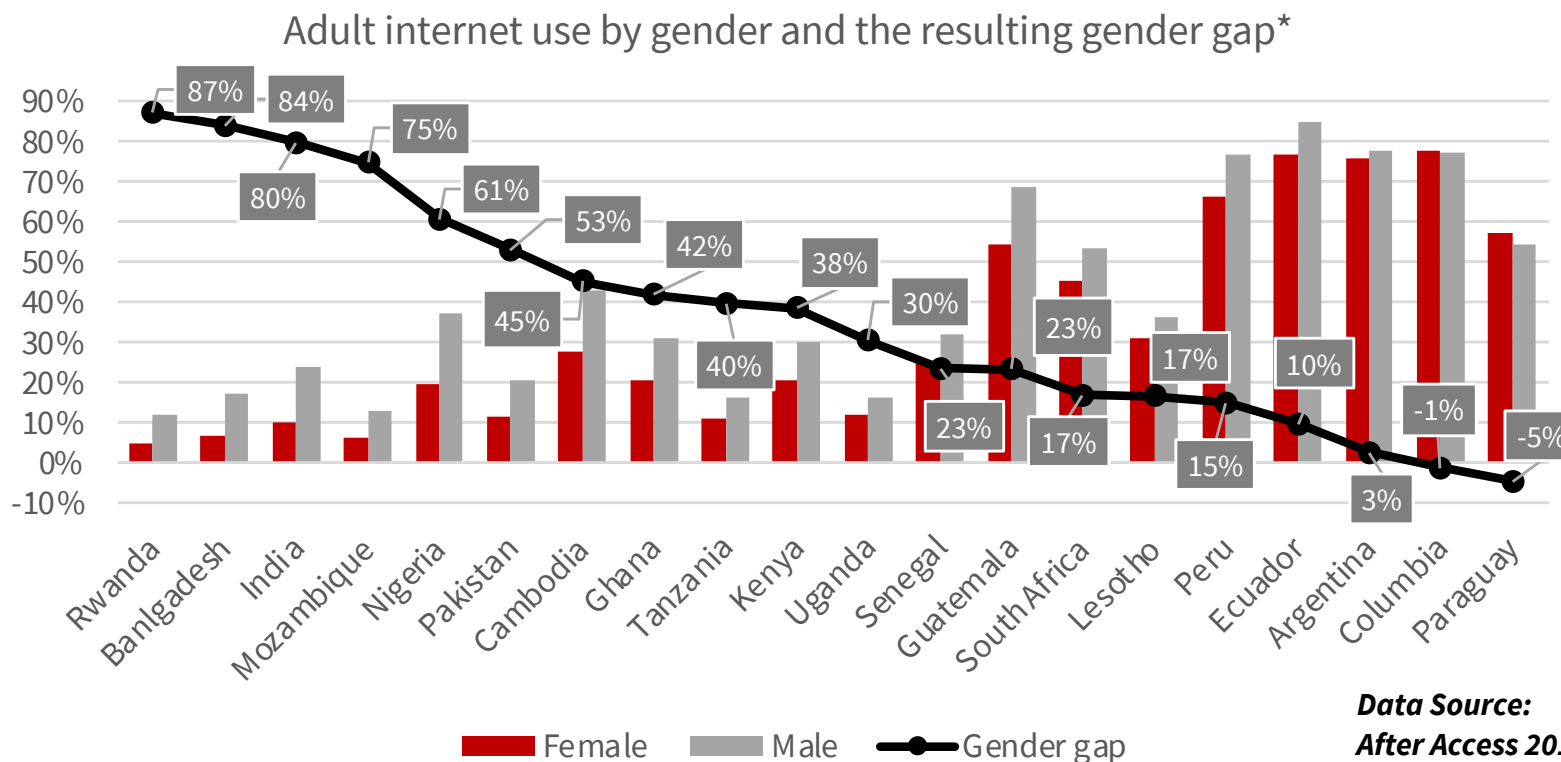
National Internet use against vs real GNI per capita



Data source: (ITU, 2021; World Bank, 2022)

Global South – Demand-side analysis

For most of the 20 countries surveyed in the Global South, male internet use was significantly higher than that of females. This gender gap is more severe where internet adoption is low across the country.



Data Source:
After Access 2018 survey data

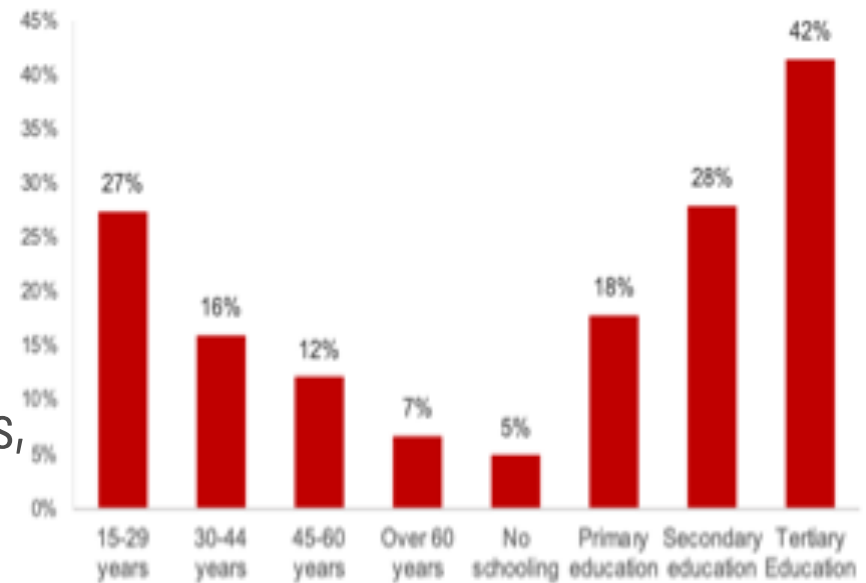
* A “Gender Gap” is calculated as the percentage difference between the proportion of men using the internet and women, relative to the average for the population:

$$\text{Gender Gap (\%)} = \frac{\% \text{ of adult men using the internet} - \% \text{ of adult women using the internet}}{\% \text{ of the total adult population using the internet}}$$

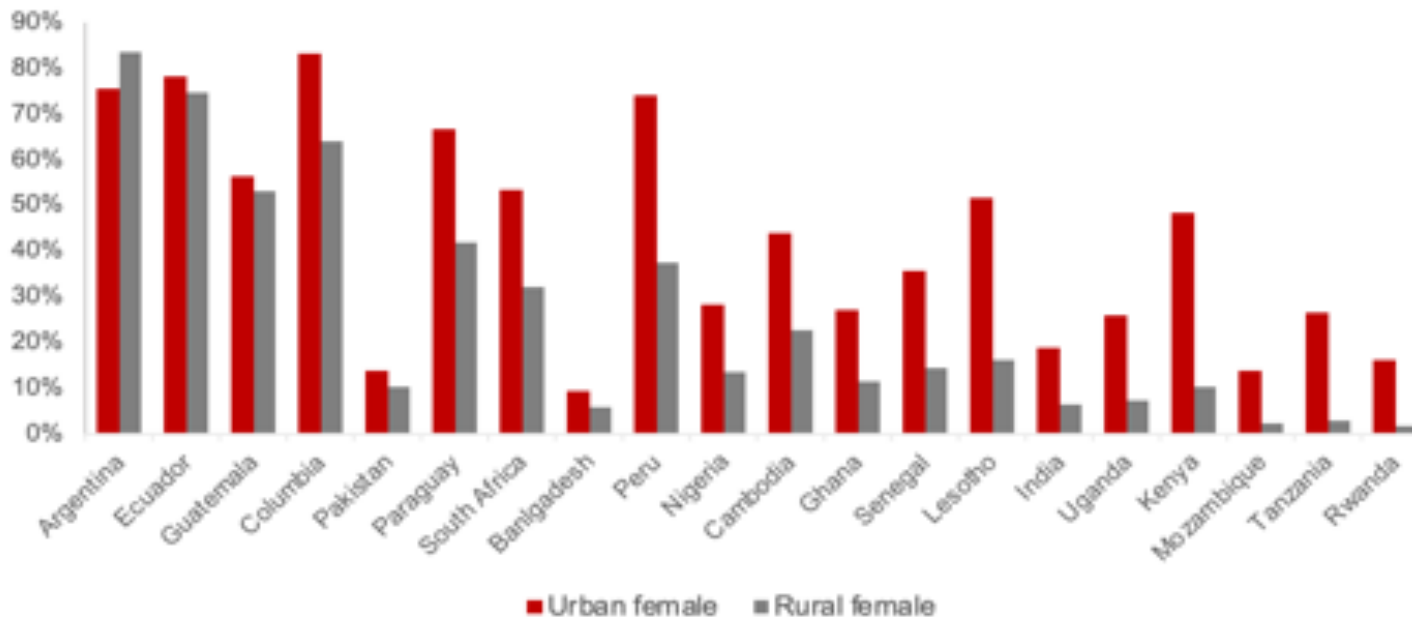
Disaggregated data – After Access 2018

- High level the heterogeneity amongst women around the world.
- Women in seemingly similar country contexts face very different outcomes in terms of equal access to and use of technology.
- Even within countries stark differences are observed for women accessing the Internet across factors such as geographic distributions, education, age and business formalisation.

Female internet access by age and education level



Female internet access by urban / rural location

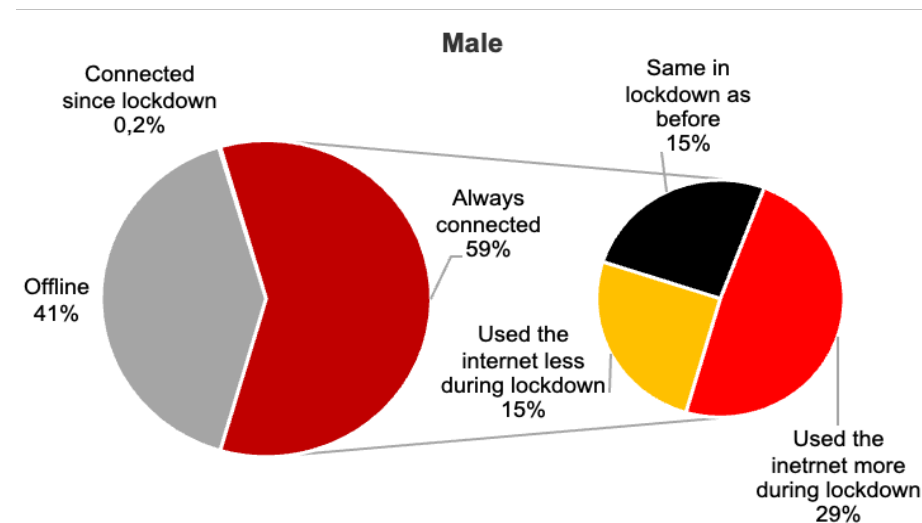
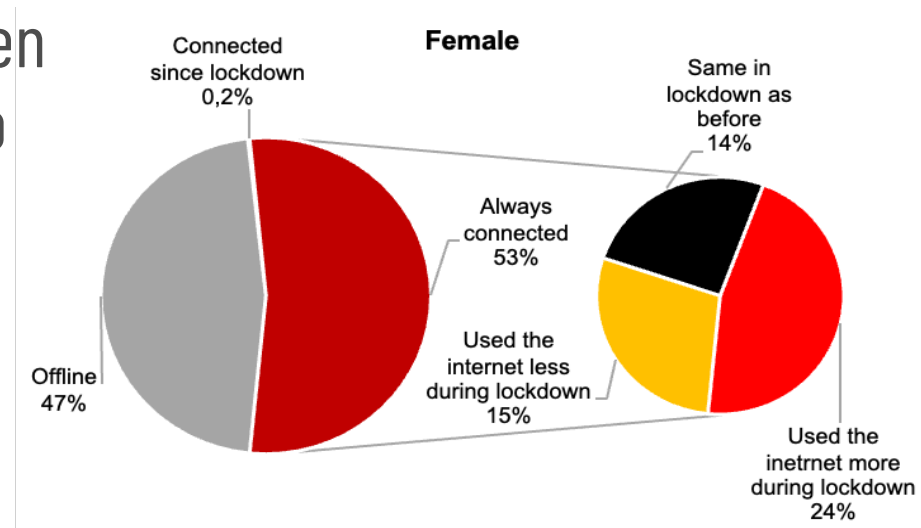


Data Source:
After Access 2018 survey data

Digital substitution

Digital substitution during the COVID-19 pandemic widened inequalities between those who had internet access prior to the pandemic and those who did not

- Surveys in Nigeria and South Africa showed that the pandemic did not lead to an acceleration in internet access, with digital substitution of activities limited to amongst those already online.
- This suggests that the pandemic did not lead to gains in bringing more people online but instead suggests that the benefits of digital substitution were limited to those already online which increases the inequalities suffered by marginalised groups.



Data Source:

RIA COVID Response for Equity Survey data

Informal sector disaggregated data

Male-owned businesses are more likely to have electricity and internet access than female-owned business, and have on average higher profits, financial resources and human capital

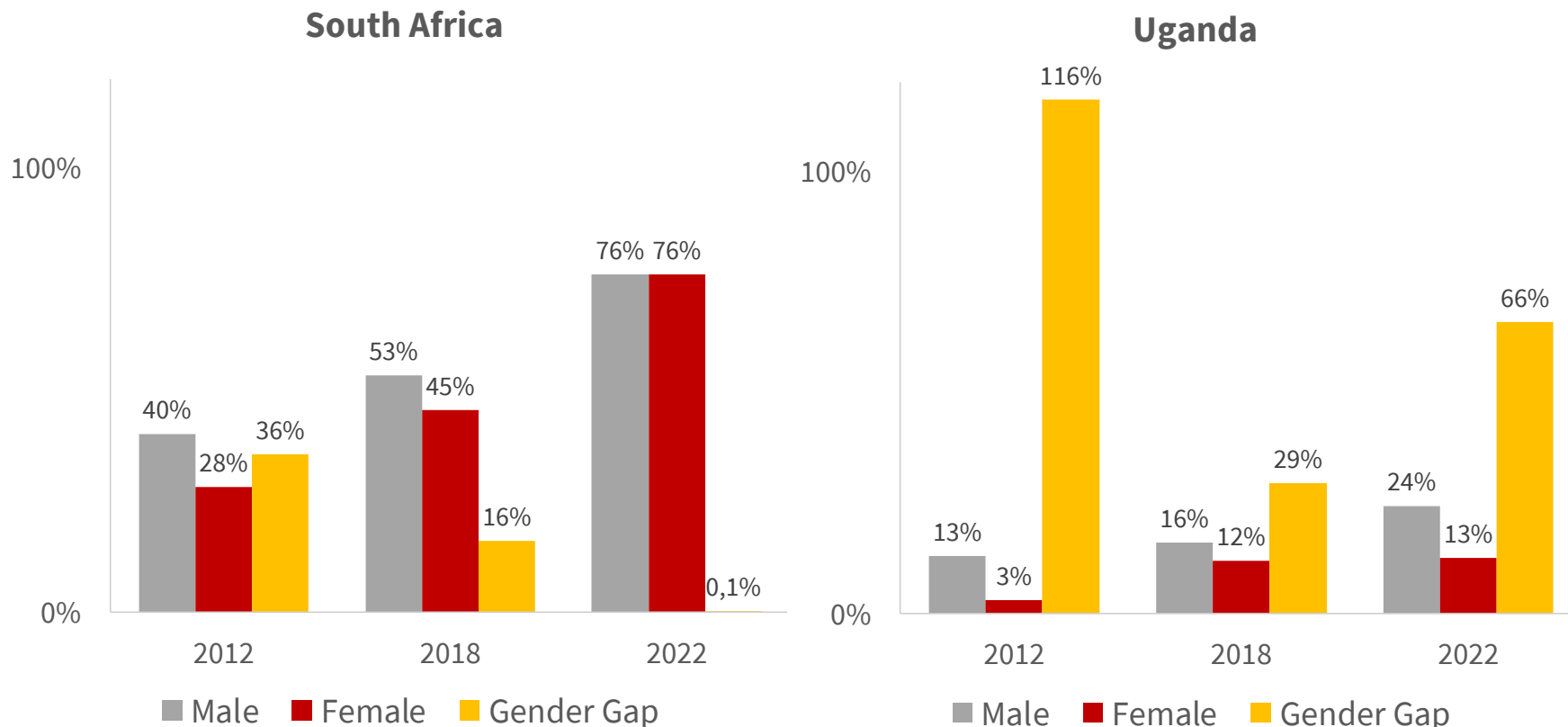
- ▶ Male-owned business on average had more than double the turnover and net asset value of female-owned businesses, and more than four times the average profit.
- ▶ Female-owned businesses less likely to have electricity of internet access, have management with minimal educational attainments and to keep financial records
- ▶ Being female-owned was estimated to significantly reduce the probability of a business having internet access by 6 percentage points

Y = Internet use for business (dummy)	Regression coefficients	Marginal effects
Ownership gender (female dummy)	-0.511** (0.204)	-0.0560** (0.0232)
Registered (dummy)	0.811*** (0.206)	0.0889*** (0.0258)
Keeps financial records (dummy)	0.660*** (0.219)	0.0724*** (0.0235)
Years since business was established	-0.0262** (0.0121)	-0.00287** (0.00142)
Manager has at least a completed secondary education (dummy)	0.426** (0.186)	0.0467** (0.0216)
Rural location (dummy)	-0.332 (0.232)	-0.0364 (0.0252)

Different Outcomes in Different Countries

Early findings of 2022 show very contrasting outcomes.

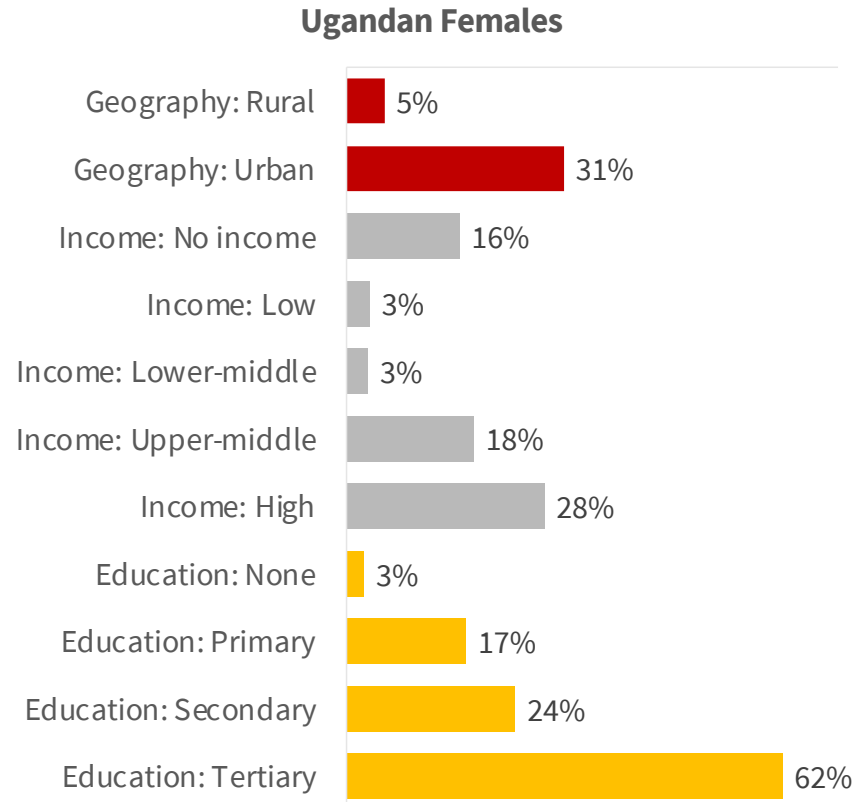
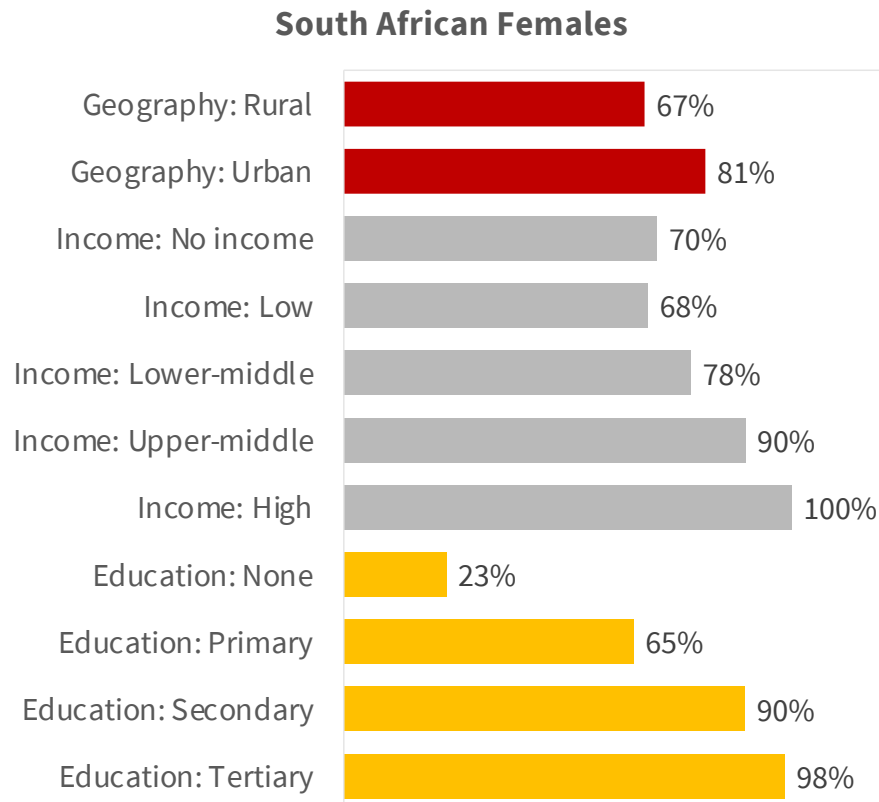
- ▶ South Africa reached an internet uptake above three quarters of the population and at the same time achieved gender equity in access
- ▶ From a much lower base, Uganda has experienced a much smaller increase in internet access and the gender gap has widened since 2018



Different outcomes for different segments of female populations

Women are a heterogenous group and access levels vary significantly along other demographic divides where digital inequalities exist

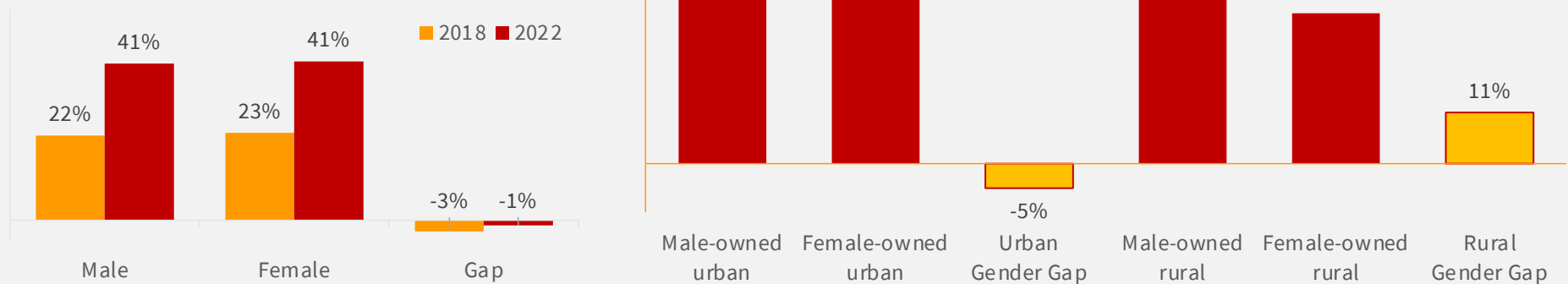
▸ **Internet Access Levels in 2022:**



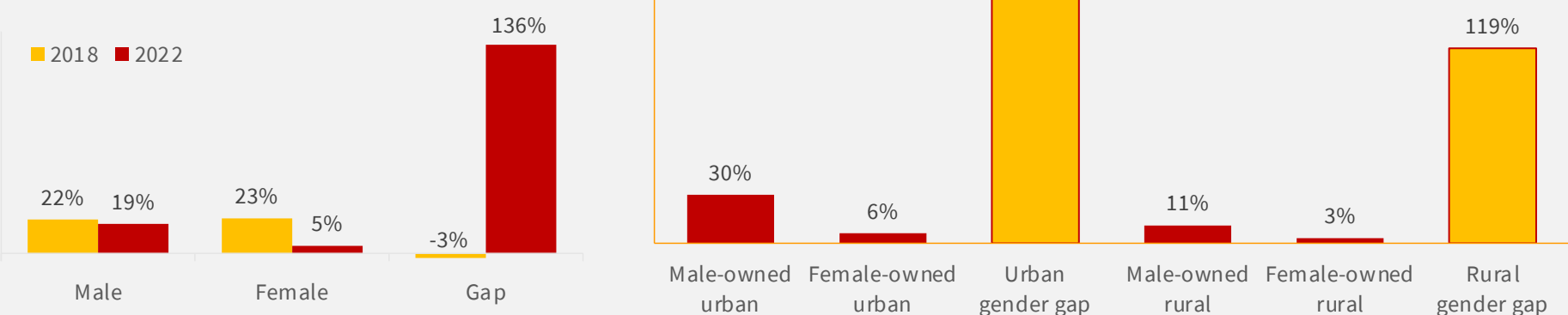
Even larger gender gaps are observed in Microbusiness access

Access for microbusinesses reflects what is being observed in the household survey data, specifically the differences across countries and the existence of intersectional inequalities

South Africa:
Internet use by microbusinesses



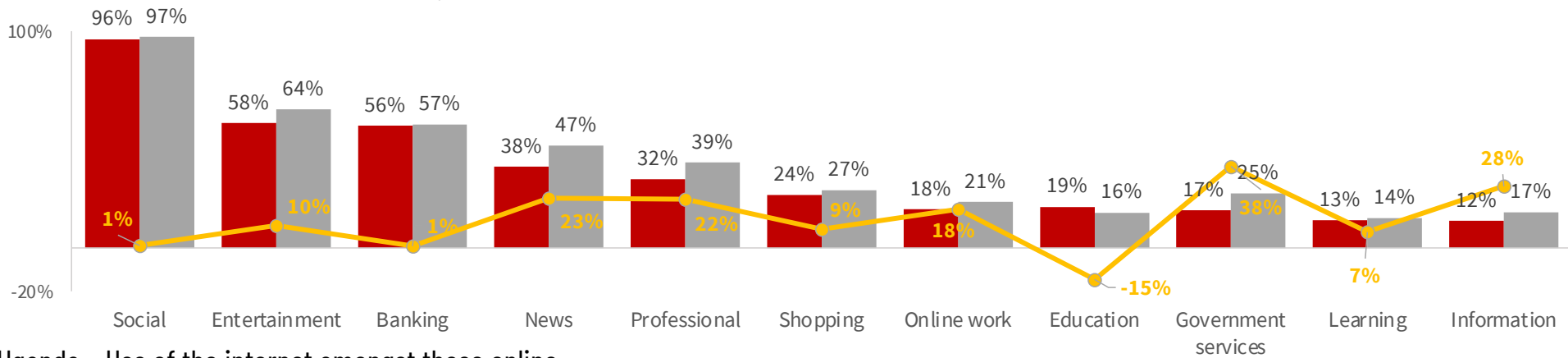
Uganda:
Internet use by microbusinesses



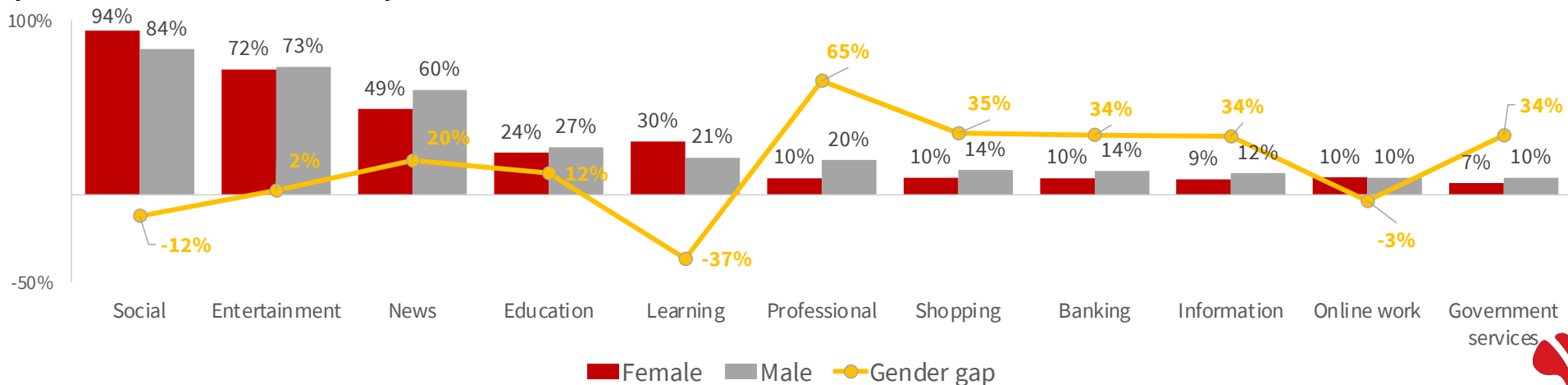
Beyond Access: Inequalities in internet use

Once we move beyond access to look at use, significant gender inequalities emerge. Even in South Africa where aggregate gender equity in access has been achieved, actual use is lower amongst women suggesting potential barriers in being able to use the internet for a wider range of use cases and ultimately means women are less able to benefit from deeper digitalisation trends.

South Africa - Use of the internet amongst those online



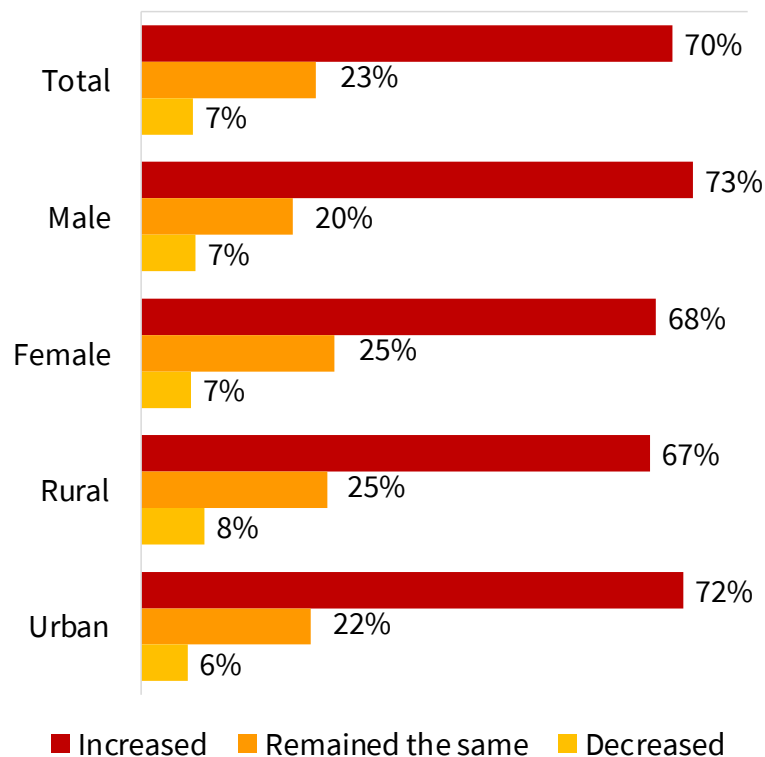
Uganda - Use of the internet amongst those online



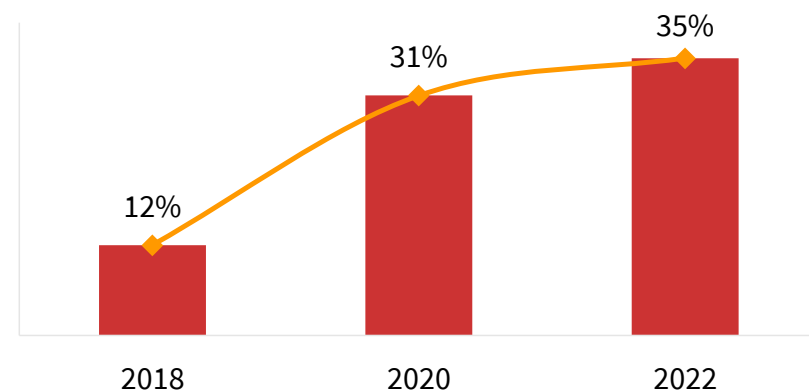
COVID-19 impacts on digital inequalities

COVID-19 accelerated the digitalisation of socio-economic activities around the world, however evidence from Africa shows this was not accompanied by an increase in access which means further marginalization for those offline

Changes in internet frequency in South Africa since before the COVID-19 pandemic



Share of households with internet access at home, 2018 and 2020 vs 2022



Although household internet access in South Africa increased significantly from 12% in 2018 to 35% in 2022, using retrospective questions from the After Access surveys reveals that almost all of these gains occurred prior to the onset of COVID-19 in 2020. Since the pandemic household internet access has remained relatively flat

Policy considerations

Many low- and middle- income countries have broadband coverage of over 90%, but have Internet penetration rates below the critical mass estimated to be 20% of the population

- ▶ access and use challenges relate more to the demand side factors - awareness, affordability, digital literacy on the consumption side and digital skills, financial access on the labour and production side.
- ▶ Women concentrated amongst those marginalised, so general universal strategies to bring people on-line (eg. reduction of handset prices) are likely to benefit them proportionally.
- ▶ But impact of strategies aimed at affordable and improved quality of access need to assess impact on women and other marginalised communities eg. COVID- spectrum and mandatory pricing reductions.
- ▶ Dealing with structural inequalities reflected in and compounded by digital inequality requires transversal policies, not siloed, sector strategies eg. at heart of any access strategy should be education.

Thank you

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