

## Review:

### ***Gender Assessment of ICT Access and Usage in Africa*** ***Alison Gillwald, Anne Milek & Christoph Stork***

*Ayesha Zainudeen, LIRNEasia, August 2010*

The *Gender Assessment of ICT Access and Usage in Africa* is a part of a policy series which presents findings of the Research ICT Africa Household and Individual Access and Usage Survey; the study was conducted in 17 African countries between 2007 and 2008. The survey aims to fill the gap in demand-side data and analysis on information and communication technology (ICT) access and use within Africa, in order to better inform ICT policy for the continent. The paper aims to identify gender inequities in ICT access and use, providing the basis for policy recommendations aimed at reducing gender disparities in access.

The paper (as well as the larger study) is based on the premise that ICTs have a positive effect on income and poverty alleviation; much research has provided evidence of this for a variety of ICTs, contexts and locations. Disparate access to ICTs by women can therefore, magnify existing inequalities, a cause for concern for policy makers. If this is so, then women can become increasingly marginalized “from the economic, social and political mainstream of their countries and of the world” (Hafkin and Taggart, 2001, p. 7). The need to measure the extent of these disparities, as a first step toward remedying them, is therefore apparent.

As the authors point out, there are a lack of ICT indicators disaggregated by gender; furthermore conventional gender equality measures do not incorporate ICTs. Unlike supply-side data (collected by operators and suppliers), household surveys like the Household and Individual Access and Usage Survey reported in this paper allow for gender disaggregation of data; they also allow further interrogation of the gender dynamics surrounding the actual use of the ICTs in addition to other important aspects such as the decision-making processes too.

The paper presents data from nationally-representative<sup>1</sup> household and individual level surveys of ICT use and access conducted in 17 African countries: Benin, Botswana, Burkina Faso, Cameroon, Cote d’Ivoire, Ethiopia, Ghana, Kenya, Mozambique, Namibia, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda and Zambia between 2007 and 2008. Additional focused group discussions were conducted in five of the 17 countries (Nigeria, South Africa, Cameroon, Uganda and Ethiopia) to gain greater insight into the quantitative patterns with respect to gender revealed. The use of several ICTs (mobile phone, the Internet, TV and radio) are explored. Probit models are employed to estimate factors affecting the likelihood of ICT use and ownership in this regard.

The probit analysis of the factors affecting the likelihood of mobile adoption as well as mobile expenditure levels indicate that in 11 of the 17 countries studied, gender is not a significant determinant of mobile phone adoption and in 10, gender is not a significant determinant of mobile expenditure; in these cases, the differences in men and women’s adoption and expenditure levels can be attributed to differences in income levels inter alia.

It is important to understand the factors associated with, and perhaps even underlying these gender disparities. In many cases it has been (quantitatively) shown that gender disparities in ICT access are in

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<sup>1</sup> Except in the case of Nigeria and Zambia as the authors explain.

fact reflective of disparities in other socioeconomic factors; women are more often poorer and less educated than their male counterparts with lower levels of access to other essential services (which are often complementary to ICT use) such as electricity (Muller, 2009). Once these socioeconomic variables have been controlled for, often there is no apparent effect of gender on access, or as the authors put it: “that women with similar income, education, employment status etc will be as likely to have a mobile phone as men. However, these influencing factors differ for women and therefore mobile phone usage is not equally accessible” (p.18). Much of the empirical evidence on Internet use in developed markets has shown this (e.g., Bimber, 2000; Rice and Katz, 2003; Wasserman and Richmond-Abbott, 2005). The current paper is a significant contribution to this body of work, providing a large-scale quantitative assessment of the gender gap in mobile phone access across 17 African nations.

In terms of Internet use, unlike the case of mobile ownership, probit analyses show that “a significant gender effect can be detected for knowledge about the Internet, usage and possession of an email address” (p.19). Most users, as well as those aware of Internet, are male. However, the authors state that the overall level of Internet use within the sample is so low (10 percent) that the reasons for this cannot be further explored. This is consistent with the gender divide in Internet use seen in developed countries during early stages of adoption. Though such divides diminished as overall Internet penetration grew, this may not happen as quickly in the countries studied here; many of the prerequisites for conventional Internet use including literacy, computer skills, financial resources, etc, are lacking in these countries (as the RIA research has also shown), and are therefore likely to slow growth in overall Internet penetration.

The survey reveals that radios and TVs are the most commonly used ICTs in Africa owing largely to their affordability. Women are more likely to watch TV, in some countries, while men are more likely to listen to the radio. The variations in levels and patterns in use of both ICTs is largely affected by cultural and social norms (for example affecting the location at which women watch TV programs) as well as gender roles, though the authors caution against generalizing the findings across countries.

The authors consider mobile ownership (referring to it as “access”) as a key outcome variable. In any consideration of the “digital divide” in mobile ownership, it is important to take into consideration the benefits received by non-owners as well. Notwithstanding that mobile telephony is more of an individual technology than its fixed counterpart, similar studies in Asia have shown that mobile phones are indeed shared devices (though usually within the household); many non-owners have therefore experienced and benefited from mobile phones (for instance among the lowest two socioeconomic classification groups in Bangladesh, 95 percent have used a mobile phone, but only 41 percent own one; LIRNEasia, 2010). What this implies is that although a digital divide in ownership may exist, its subsequent effects may not be as severe once the benefits accruing to non-owning users are considered. Similar findings have been seen in parts of Africa too (Macueve, 2009).

While the authors provide policy recommendations for improving mobile and Internet access, it seems that the most pressing issue is affordability. Given the relative importance of mobile phones in connecting large numbers of people (particularly at the bottom of the pyramid) to the “global Internet economy” (as compared to the conventional PC-route) (Samarajiva, 2009), it is important to ensure affordable access to mobiles. This has already happened in Asia through intense competition and

business innovations (ibid); some of the lessons learnt in Asia may provide valuable insights into how Africa can also achieve similar levels of affordability<sup>2</sup>.

In this same regard, awareness of “the Internet” may be of less significance than previously thought. It is expected that many consumers in developing markets will have their first experience with the Internet (or elements of it: information retrieval, payments, remote computing) through a mobile, rather than the conventional desktop computer route (Samarajiva, 2009; Nokia, 2010). This may be in the form of “conventional” Internet browsing, or through new services and applications such as price information services, news alerts, as well as the set of applications under the mobile money umbrella (banking, payments, remittances, etc). Support for this argument is growing in Asia, and to an extent in Africa too (particularly with respect to mobile payments in countries like Kenya), though many barriers are yet to be overcome (LIRNEasia, 2010; CKS Consulting, 2009). Therefore an important consideration for future research may be the gender disparities in awareness levels of such services and applications.

This paper raises an important policy priority and is supported by data from 17 African countries. The core strengths of this paper lie in the size of the dataset, its national representativeness (at least in 15 of the countries) and the ability to disaggregate the data by gender. This allows the authors to generalize findings at a country level and draw valid conclusions about the gender disparities seen. The evidence suggests that underlying the visible gender ICT disparities are more fundamental disparities in education, income and other socioeconomic factors, with some sociocultural factors playing a role also. This is an important empirical contribution to the thin body of research on gender and ICTs in developing markets, which has, to date, been dominated by small, non-generalizable case studies and accounts.

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<sup>2</sup> Though this is not to say that a cookie-cutter approach should be taken; the specificities of the African context should obviously be taken into account.

[http://www.nokia.com/NOKIA\\_COM\\_1/Corporate\\_Responsibility/Society\\_/Expanding\\_Horizons/Expanding\\_Horizons\\_NEW/pdf/Expanding\\_Horizons\\_Q1\\_2009.pdf](http://www.nokia.com/NOKIA_COM_1/Corporate_Responsibility/Society_/Expanding_Horizons/Expanding_Horizons_NEW/pdf/Expanding_Horizons_Q1_2009.pdf)

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