

Compendium of External Resources

Women's Economic Empowerment and Digital Connectivity (WEE-Connect) Research Initiative

WEE-Connect has compiled a list of open-access resources that explore the intersection of meaningful digital connectivity and women's economic empowerment. This list is designed to serve as a reference point for researchers to identify ongoing gaps in the empirical record as additional research is generated. Please note that this is by no means an exhaustive list, nor an assertion by WEE-Connect that these are the best resources available. We also encourage researchers to consult other available resources.

Academic Publications

- [Digital tools and agricultural market transformation in Africa: Why are they not at scale yet, and what will it take to get there?](#) by **Gashaw Tadesse Abate, Kibrom A. Abay, Jordan Chamberlin, Yumna Kassim, David J. Spielman and Martin Paul Jr. Tabe-Ojong** reviews the conceptual and empirical evidence on the transformative potential of digital innovations for African agricultural markets with an in-depth examination of solutions that have been rolled out to-date on the continent.
- [The digital divide: the special case of gender](#) by **Joel Cooper** examines the evidence for the digital divide based on gender. The evidence suggests that the digital divide is fundamentally a problem of “computer anxiety” whose roots lie deep in the socialization, interaction, and stereotyped patterns of boys and girls.
- [Supporting self-employment and small-scale entrepreneurship: potential programs to improve livelihoods for vulnerable workers](#) by **Hina Amber, and Bezawit Beyene Chichaibelu** investigates the gender and rural–urban (female) digital divide worldwide. Additionally, the study employs an instrumental variable approach to study the effects of mobile or smartphone ownership on female labor force participation.
- [Network adoption subsidies: A digital evaluation of a rural mobile phone program in Rwanda](#) by **Daniel Björkegren and Burak Ceyhun Karaca** examines the Rwandan government's mobile phone handset adoption program, revealing that the majority of subsidized handsets remain in rural areas with high usage and recipient interconnectedness. The study finds that up to 69% of the impact on operator revenue is

due to spillovers affecting nonrecipients, based on analysis of 5.3 billion transaction records.

- [Mobile Broadband, Poverty, and Labor Outcomes in Tanzania](#) by **Kalvin Bahia, Pau Castells, Genaro Cruz, Takaaki Masaki, Carlos Rodríguez-Castelán, and Viviane Sanfelice** finds that 3G network coverage significantly boosts household consumption and reduces poverty, primarily by improving labor-market outcomes, with the greatest benefits seen among younger, skilled men and high-skilled women transitioning into non-farm employment.
- [The Mobile Phone Revolution and Digital Inequality: Scope, Determinants and Consequences](#) by **Philip Roessler** under the [Pathways for Prosperity Commission](#) argues that a core set of socio-economic factors – education, income, gender, and age – continue to constrain mobile phone ownership and the migration to more advanced mobile phone technologies. The paper also argues that mobile phone ownership among low-income households is much more irregular than generally recognized.
- [Narrowing the gender digital divide in Pakistan: Mobile phone ownership and female labor force participation](#) by Hina Amber and Bezawit Beyene Chichaibelu explores the gender and rural-urban digital divide, focusing on how institutional and sociocultural norms contribute to the lower ownership of mobile or smartphones among women compared to men, and how such ownership significantly boosts female labor force participation. The study suggests that equipping women with digital tools and enhancing their skills can greatly improve their economic well-being.
- [The impact of a direct to beneficiary mobile communication program on reproductive and child health outcomes: a randomized controlled trial in India](#) by **Amnesty Elizabeth LeFevre, Neha Shah, Kerry Scott, Sara Chamberlain and Osama Ummer et al.** assesses whether exposure to mobile health information calls during pregnancy and postpartum improved infant feeding and family planning practices.
- [The welfare effects of mobile broadband Internet: Evidence from Nigeria](#) by **Kalvin Bahia, Pau Castells, Genaro Cruz, Takaaki Masaki, et al. under the World Bank Group** identifies that mobile broadband coverage had large and positive impacts on household consumption levels. The effects are mainly due to an increase in labor force participation and employment, particularly among women.
- [Cell Phones and Rural Labor Markets: Evidence from South Africa](#) by **Stefan Klonner and Patrick James Nolen** explains labor market effects of the roll-out of mobile phone coverage in rural South Africa. Using a gender-differentiated analysis, the study shows that most of the effect is due to increased employment by women, in particular those who are not burdened with large child care responsibilities within their homes.

- [Mobile nudges and financial incentives to improve coverage of timely neonatal vaccination in rural areas \(GEVaP trial\): A 3-armed cluster randomized controlled trial in Northern Ghana](#) by **Gillian Levine, Amadu Salifu, Issah Mohammed and Günther Fink** determines whether mobile phone-based reminders and incentives to health workers and caregivers increase timely neonatal vaccination in a rural, low-resource settings.
- [Mobile phone-delivered reminders and incentives to improve childhood immunization coverage and timeliness in Kenya \(M-SIMU\): a cluster randomized controlled trial](#) by **Dustin G Gibson, Benard Ochieng, E Wangeci Kagucia, Joyce Were, Kyla Hayford et al.** under the [International Vaccine Access Center](#) assesses whether short message service (SMS) reminders and monetary incentives improve immunization uptake in Kenya.
- [The long-run poverty and gender impacts of mobile money](#) by **Tavneet Suri and William Jack** identifies impacts of mobile money for female-headed households driven by changes in financial behavior – in particular, increased financial resilience and savings – and labor market outcomes.
- [Poverty and Migration in the Digital Age: Experimental Evidence on Mobile Banking in Bangladesh](#) by **Jean N. Lee, Jonathan Morduch, Saravana Ravindran, Abu Shonchoy, and Hassan Zaman** introduces mobile banking to very poor rural migrant households and family members. The study also observes impacts on female migrant workers who adopted mobile money.
- [Enabling development through governance and mobile technology](#) by **Adegboyega Ojo, Tomasz Janowski and Johanna Awotwi** investigates how governance can facilitate access to mobile technology for vulnerable groups, specifically female head porters in Accra with mobile phones.
- [Technology as amplifier in international development](#) by **Kentaro Toyama** highlights the potential of digital tools in enhancing educational outcomes, especially for women in developing regions.
- [Effects of Digitization on Financial Behaviors: Experimental Evidence from the Philippines](#) by **Tomoko Harigaya** under [The Weiss Fund](#) examines how the introduction of mobile banking in group microfinance affects savings behavior of existing clients using a randomized experiment in the Philippines with gender-specific impacts.
- [Mobile Phones, Civic Engagement, and School Performance in Pakistan](#) by **Minahil Asim and Thomas Dee** under the [National Bureau of Economic Research](#) evaluates a uniquely designed, low-cost, scalable program aimed to improve the governance and performance of primary and middle schools in the Punjab province of Pakistan, finding

significant improvements observed in female primary schools.

- [The welfare effects of mobile broadband Internet: Evidence from Nigeria](#) by **Kalvin Bahia, Pau Castells, Genaro Cruz, Takaaki Masaki, Xavier Pedrós, Tobias Pfutze, Carlos Rodríguez-Castelán and Hernan Winkler** reveals that mobile broadband coverage in Nigeria significantly boosts household consumption and labor force participation, notably among women, leading to a reduction in poverty, particularly in rural areas.

Research and Policy Reports and Briefs

- [Mobile money taxation and informal workers: Evidence from Ghana's E-levy](#) by Nana Akua Anyidoho, Max Gallien, Mike Rogan, Vanessa van den Boogaard examines the use of mobile money by informal workers in Accra, Ghana, and their perception of the Electronic Transfer Levy (E-levy) introduced in May 2022, highlighting its regressive nature and general disapproval among informal workers due to concerns about equity and dissatisfaction with government performance.
- [Affordable Devices for All: Innovative Financing Solutions and Policy Options to Bridge Global Digital Divides](#) by **Amin Rami and Doyle Gallegos** examines the key themes and drivers of costs in the supply and demand for internet-enabled mobile devices. The report also reviews various financing schemes and opportunities for private capital mobilization to render smartphones accessible to low-income individuals.
- [Understanding women micro-entrepreneurs' use of mobile phones for business: Evidence from 10 low- and middle-income countries](#) by **Isabelle Carboni, Alida Taghiyeva, Nadia Jeffrie, Dominica Lindsey and Claire Sibthorpe** discusses women micro-entrepreneurs' use of mobile phones for business and identifies the challenges experienced by these women.

Blogs and Articles

- [How to unlock women's potential in the digital economy](#) by **Shamika N. Sirimanne** of the [United Nations Conference on Trade and Development](#) discusses how to increase women's participation in e-commerce and the digital economy by reducing the digital gender divide.
- [UN Women integrates digital technologies into women's economic empowerment programmes](#) by **UN Women** describes their collaboration with the Orange Foundation and the Liberian Government to economically empower women through digital innovations and technology to promote gender equality.
- [Sathi Network: A pathway to women's economic empowerment](#) by **Nahid Sharmin**,

Rubaiyat Sharmin, and Iqbal Hossain Sohel explains how the financial inclusion of women, including the availability of financial products and services, could be a pathway to ensure women's equitable economic participation in Bangladesh.

- [Digital Inclusion for Women Should be a Priority](#) by **Ritah Nanyonga** explores the Digital Uganda Vision, a national policy and strategic framework committed to digitalizing the economy with gender-specific impacts.