

Paper directory boosts usefulness of mobile phones, bottom lines, in rural Africa

May 29 2025, by Alison Fromme

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Cornell University-led [research](#) published in *The Economic Journal* shows that introducing paper business telephone directories—similar to the Yellow Pages—in Tanzania boosted sales revenue by 104% for listed

businesses and increased the number of sales and the use of mobile money. Neighboring unlisted businesses also benefited.

In rural Africa, basic mobile phones help people conduct business among their existing contacts. But expanding business networks—and opportunities—remains a challenge.

"When you and I use our phones in the U.S. and Europe, we're in this enriched information and [communications technology](#) (ICT) environment where we can access contact information for most other people and businesses very easily," said Brian Dillon, lead author and assistant professor of applied economics and policy.

That's not the case in rural Africa, where businesses don't usually have websites and most mobile phones don't have search capabilities to find them anyway, Dillon said.

Without a directory, basic business activities can be costly. A phone alone doesn't provide access to all the traders or sellers a [business owner](#) might want to contact. If a farmer wants to find lower-cost fertilizer, for example, they need to leave their farm for a day, spend money on travel, and talk to a lot of people in a neighboring town. And the payoff is uncertain.

"We wanted to test whether or not contact information is a key bottleneck for the potential of mobile phones to support farmers and businesses, to foster new trading relationships and to have as broad benefits as possible," Dillon said.

With the support of the Institute of Rural Development Planning, the team completed a census of businesses in central Tanzania and obtained permission to include their [contact information](#) in a print directory.

The researchers found the directory made a big impact on listed businesses as well as their neighbors. The magnitude was "life-changing for [small businesses](#)," Dillon said.

In addition to the 104% increase in revenue for listed firms, the number of sales increased by 47% and the use of mobile money by 31%. Unlisted neighboring firms increased text message traffic by 280%, mobile money usage by 26%, and the number of sales by 40%.

Now, Dillon and his team are analyzing the effects of a digital version of the directory, accessible by mobile phones using unstructured supplementary service data, or USSD—a technology that does not require a smartphone or an app.

More information: Brian Dillon et al, Yellow Pages: Information, connections and firm performance, *The Economic Journal* (2025). [DOI: 10.1093/ej/ueaf009](https://doi.org/10.1093/ej/ueaf009)

Provided by Cornell University

Citation: Paper directory boosts usefulness of mobile phones, bottom lines, in rural Africa (2025, May 29) retrieved 4 October 2025 from <https://phys.org/news/2025-05-paper-directory-boosts-usefulness-mobile.html>

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