



SOFT SKILLS FOR HARD CONSTRAINTS: EVIDENCE FROM HIGH-ACHIEVING FEMALE FARMERS

Authors: Joao Montalvao, Michael Frese, Markus Goldstein and Talip Kilic

KEY MESSAGES

- 1. We find a positive link between women farmers' noncognitive entrepreneurial skills (such as perseverance, passion for work, and optimism) and their adoption of cash crops.**
- 2. Noncognitive skills seem to work by encouraging women to make higher use of productive farm inputs, including labor, fertilizer, and agricultural extension services.**
- 3. The effect of noncognitive skills on cash crop adoption is concentrated in patrilocal communities, suggesting that these skills are most important where cultural and social institutions are stacked against women's empowerment.**

Most women farmers in developing countries engage in subsistence agriculture. Previous research highlights a variety of barriers hindering women's ability to participate in the production and marketing of cash crops, which though riskier can be much more profitable. For example, women have limited land ownership, lower access to social networks, and are constrained by social norms prescribing gender roles in agriculture. Despite these obstacles, some women are able to break into profitable cash crop markets. What sets these high-achieving women apart?

A study by the World Bank's Africa Gender Innovation Lab, the Living Standards Measurement Study and Methods Team, and the National University of Singapore Business School, provides evidence that noncognitive entrepreneurial skills, such as the will to persevere, optimism, and passion for work play a decisive role – even more so in communities where women face greater constraints to their economic empowerment.

GENDER INNOVATION LAB

The Gender Innovation Lab (GIL) conducts impact evaluations of development interventions in Sub-Saharan Africa, seeking to generate evidence on how to close the gender gap in earnings, productivity, assets and agency. The GIL team is currently working on over 50 impact evaluations in 21 countries with the aim of building an evidence base with lessons for the region.

The impact objective of GIL is increasing take-up of effective policies by governments, development organizations and the private sector in order to address the underlying causes of gender inequality in Africa, particularly in terms of women's economic and social empowerment. The lab aims to do this by producing and delivering a new body of evidence and developing a compelling narrative, geared towards policymakers, on what works and what does not work in promoting gender equality.



HERE'S WHAT WE DID

We analyze data from the second wave of the Malawi Integrated Household Panel Survey, which was conducted in 2013 by the National Statistical Office as part of the LSMS-Integrated Surveys on Agriculture initiative. A strength of this dataset is the availability of measures of noncognitive skills related to entrepreneurship of farm managers, as well as their crop portfolio choices and other detailed agriculture information, in addition to the more standard socioeconomic questions. Our working sample comprises nearly 500 farm households with valid noncognitive skills data for both spouses.

We focus our analysis on the decision to produce and sell tobacco – a crop exclusively grown for export markets. While smoking rates continue to drop in rich economies, and tobacco regulations are tightening in developing countries, tobacco remains a highly profitable crop in Malawi, accounting for 60 percent of the country's export revenue, with 70 percent of production coming from smallholder farmers. Whether or not to grow and sell tobacco is thus one of the major entrepreneurial decisions faced by both men and women smallholder farmers in Malawi.

HERE'S WHAT WE FOUND

1. Farms managed by women with higher noncognitive ability are more likely to produce tobacco. We find that women with above-median non-cognitive ability are about 40 percent more likely to produce tobacco than women with below-median noncognitive ability.
2. This result is not explained by differences across women in education and cognitive skills. It is also not explained by the fact that higher noncognitive ability women tend to be married to husbands of higher noncognitive ability and education.
3. We find that the amount of time the family allocates to the farm, the acquisition of specific knowledge on how to grow and sell tobacco, and investment in non-labor inputs (critical inputs to successfully break into cash crop markets) account for almost half of the total effect of female noncognitive skills on adoption.
4. We find the link between female noncognitive skills and cash crop adoption is concentrated in patrilocal communities, where women face greater adversity, lower status and power, and thus where we expect the returns to such skills to be highest.

CONCLUSION

Overall, our findings complement the growing literature in psychology and economics documenting the importance of noncognitive skills in determining important economic outcomes.¹ Ours is one of the first pieces of evidence on the importance of noncognitive skills in determining performance in a poor rural setting. To the extent that noncognitive skills are malleable,² our results suggest that policy interventions aimed at fostering noncognitive skills in rural settings might be particularly effective if targeted to women. The task now is to pilot and evaluate policies, such as low-cost psychological interventions, that equip women farmers with such skills.

For more information on this study, download the World Bank Policy Research Working Paper: <https://openknowledge.worldbank.org/handle/10986/27295>

¹ e.g. Bowles et al. 2001, Heckman et al. 2006, Borghans et al. 2008, Lindqvist and Vestman 2011.

² Blattman et al. 2016

This work has been funded in part by The Umbrella Facility for Gender Equality (UFGE), a World Bank Group multi-donor trust fund expanding evidence, knowledge and data needed to identify and address key gaps between men and women to deliver better development solutions that boost prosperity and increase opportunity for all. The UFGE has received generous contributions from Australia, Canada, Denmark, Finland, Germany, Iceland, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and the United States.

FOR MORE INFORMATION, PLEASE CONTACT

Markus Goldstein
mgoldstein@worldbank.org

Rachel Coleman
rcoleman1@worldbank.org

1818 H. St NW
Washington, DC 20433 USA