

The fourth in our impact series follows up on our first impact note, which presented the puzzling finding that the average female-owned microenterprise in Sri Lanka had no gain in profit from grants. This note presents the results of new research designed to understand why.

Why is more capital not enough to grow female businesses?

David McKenzie

A striking finding from a recent field experiment in Sri Lanka is that giving small grants of \$100 and \$200 to male-owned microenterprises increased monthly profits by 9 percent, but giving the same amounts to female-owned microenterprises resulted in no change at all in profits.

These results challenge one of the central premises of the microfinance movement, which is that women are poorer and more credit-constrained, and so should benefit more from increased access to finance. It is thus important to understand why the returns to women are so low, and what types of policies may offer hope in raising the incomes of female businesses.

The much lower returns to women aren't the result of differences between male and female business owners in education, entrepreneurial ability, risk aversion, or reasons for going into business.

We would expect poor, high ability, individuals to benefit most from additional capital in their business since they should be the most credit-constrained. If anything, female microenterprise owners in Sri Lanka come from slightly wealthier households than male owners, and have more education. However, they have slightly lower ability as measured by Digitspan recall tests and less self-assessed entrepreneurial ability.

Even after controlling for the differences between men and women in these dimensions, we still find the large gender difference in returns to capital persists. So while poorer, more able, women have higher returns to the grants than richer, less able,

women, both earn less return than comparable men.

Female-dominated industries often have a low optimal size and low returns

We find that differences in the industries men and women work in account for some of the difference in returns. Thus, owners of bicycle repair shops (who are all males) invest and earn more than owners of retail shops (mixed male and female), who invest and earn more than those who make lace products, or simple food like string hoppers (all females).

Thus one reason for the low return to capital for many women is that they work in female-dominated industries which appear to offer little prospects for growth. The optimal size of businesses appears to be much smaller in many female-dominated industries, so that once the basic subsistence business is established, additional capital will have low returns.

However, this is not the whole story, since even in the relatively mixed industries, women still earn lower returns to the grants than men.

More empowered women appear to earn higher returns

A second factor may be differences in bargaining power and capture. An intriguing finding of the work is that when women were given \$100 grants, little of the money ended up in the business, but when women received \$200 grants, as much or more of it ended up in the business as when men received grants. But when they do invest the larger amounts, the returns are zero or negative.

Do you have a project you want evaluated? DECRG-FP researchers are always looking for opportunities to work with colleagues in the Bank and IFC. If you would like to ask our experts for advice or to collaborate on an evaluation, contact us care of the Impact editor, David McKenzie (dmckenzie@worldbank.org)

A standard unitary household model in which the household acts together to maximize income can not explain these results. Instead, one explanation may be that business decisions are made by women assuming that some of the income and assets of the business will be captured by other household members.

A key insight of the paper is that small, liquid assets such as inventories might be more easily captured by a spouse than larger, less liquid assets, such as equipment. As a result, women might underinvest in inventories, and overinvest in equipment, using the equipment as a way of protecting assets from capture as well as for the business. As support for this speculation, the authors show that more empowered women invest more of the treatment in inventories, and earn higher profits from the treatment.

These gender differences in returns do not appear to be unique to Sri Lanka.

Non-experimental evidence also shows that women have much lower returns to capital than men in Mexico and Brazil, with the Brazilian data also suggesting a strong role for industry in explaining the gender differences. Ongoing work by the authors is attempting to replicate the experiment in Ghana, with a larger sample size allowing more detailed examination of the factors which determine the choice of industry to work in.

Policy Implications

1. More finance alone might not be enough to raise the incomes of many female-owned businesses.

Business training and information may be needed to get women to work in industries

For further reading see:

De Mel, Suresh, David McKenzie and Christopher Woodruff, forthcoming, "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns", *American Economic Journal: Applied Economics*.

Recent impact notes are available on our website: <http://econ.worldbank.org/programs/finance/impact>

Impact Note 1: Which Microenterprises have high returns to capital? – David McKenzie

Impact Note 2: Does Business Registration Reform increase entrepreneurial activity? – Miriam Bruhn

Impact Note 3: The Promise of Index Insurance – Xavier Gine

with higher prospects for growth, while greater empowerment for women might also be needed. An ongoing experiment in Sri Lanka is investigating whether business training helps in this regard.

2. The focus of microfinance on empowerment might help, but needs to be shown to work.

Sometimes microfinance is directly argued to empower women, by giving them income-earning opportunities. Our work suggests that there are limits to how much income can be earned this way. Another aspect of microfinance is to explicitly include messages and activities to increase empowerment among women.

If it worked, greater empowerment may lead women to invest money more efficiently, without having to worry about the threat of income and assets being captured by other household members. However, to date there is little in the way of serious evidence to show that empowerment sessions in microfinance groups do have this impact.

3. More impact evaluation of policies to help female-owned enterprises grow is needed.

NGOs, Microfinance Organizations, and International Organizations worldwide promote a number of different policies designed to promote female entrepreneurship. Examples include mentoring schemes, vocational training into non-traditional occupations, different lending products, value-chain work, etc. However, there is little evidence for the efficacy of any of these policies, making it difficult to know what works, and why.