Combating the Gender Profit Gap

SMEs in Ghana: From Evidence to Action

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1. Understanding barriers to the economic empowerment of women is of primary importance within any country’s path toward development.¹

2. In low-income countries, micro-entrepreneurship is a growing (and often a woman’s only) alternative to agriculture for work outside of the home.²

3. Similar to the gender wage gap found in high-income countries, female-owned microenterprises earn less than male-owned microenterprises.³

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The gender profit gap in Ghana

Distribution of Firm Profits by Gender

Source: Hardy and Kagy, 2018
Microenterprises owned by men and women are different, but these observed differences do not explain the gender profit gap:

Previous studies found:

Nix, Gamberoni and Heath (2016)\(^1\)

Hardy and Kagy (2018)\(^2\)

The reasons for this profits gap are still unknown.

1. marital status, experience, education, number of children, and hours worked. 2. cognition, productivity, reasons for self-employment, and product quality, in Ghana garment making.
Male and female firm owners respond differently to programs intended to ease “production” constraints:

Financial (cash/credit) and owner-training programs beneficial for male-owned microenterprises, but not for female-owned.

Bernhardt et al., 2017
Cash/credit interventions are also less effective if a woman’s husband also owns a business.

Fafchamps et al., 2014
Female-owned microenterprises respond more to grants of business specific machinery/tools than cash.
It’s Getting Crowded in Here: Experimental Evidence of Demand Constraints in The Gender Profit Gap

with Gisella Kagy (Vassar College)

What: Is demand a constraint for female-owned businesses?
Where: Garment making industry in Hohoe, Ghana
How:
1. Experiment: Randomly increase number of garments ordered
2. Project Data: (firm census/survey, market research survey)
3. National Employment Data (Ghana Living Standards Survey)
Experimental Evidence:
1. Gender profit gap disappears during experiment as order size increases
2. Female-owned firms absorb (expand for) experimental demand; male-owned firms do not

Descriptive Evidence:
1. Female-owned firms are selling less and making less per order
2. Lack of customers is most reported barrier for female owners
3. There are three times as many female-owned firms in the market, but not three times as many potential customers (demand is gender segregated).

National Employment Data Evidence:
Women work in less sectors, less industries, and more crowded industries than men

Take-away: Demand constraints are a likely piece of the gender profit gap puzzle.
1. Women work in fewer sectors and industries than men, and the ones they do work in are more crowded.

2. When female-owned firms and male-owned firms randomly received access to more orders for their products, female-owned firms accommodated new orders, male-owned firms didn’t, and the profit gap between them disappeared.

3. Programs that expand women's opportunities to sell their goods may be an important strategy for helping their businesses grow.

4. Programs that provide women with more employment options may alleviate crowding for those that remain in business.
Garment-making in Ghana

Context

Similar to other microenterprises in Ghana and other developing countries:

• Firms are of **small scale**, typically no paid employees besides owner
• Use **simple production technology**
• Firms are **numerous** and produce **similar products**
• **Demand** comes from **local** population
• Garments are **made to order**
1. Firms in Hohoe owned by both men and women.

2. Three times as many female-owned garment making firms.

3. Large gender gap in profit, not explained by firm and owner characteristics.
Male-owned firms outperform female-owned firms (on average)

Average Monthly Firm Profits by Gender

- Male-owned firms (222.34 GHS on average)
- Female-owned firms (115.6 GHS on average)
Male-owned firms outperform female-owned firms (on average)

Average Monthly Firm Sales by Gender

SALES (GHS)

- Male-owned firms (316.49)
- Female-owned firms (166.76)
Male-owned firms outperform female-owned firms (on average)

Average Monthly Firm Production by Gender

- Men: 34.58
- Women: 22.89
The 2-to-1 profit gap is composed of both that:

- Male-owned firms sell 50% more quantity.
- Male-owned firms receive 33% more “mark-up.” \((3/2 \times 4/3 = 2)\)

This suggests that male-owned firms face less competition.
Women most likely to cite lack of customers as biggest barrier

Percent of Owners Reporting Barrier as Main Barrier

- Not enough customers: Men 43%, Women 57% (** Statistically Significant)
- Not enough time: Men 6%, Women 4%
- Not enough access to cash/savings: Men 48%, Women 50%
- Not enough access to credit: Men 8%, Women 7%
- Not enough apprentices: Men 26%, Women 26%
- Supply problems - wager/electricity: Men 55%, Women 45% (* Statistically Significant)
- Supply problems - materials: Men 14%, Women 4% (** Statistically Significant)

** Indicates that difference between male and female responses is statistically significant.
Firms learned a **new design technique** to be used on garments.

Firms were randomly assigned to receive additional orders.
## Results

### Effects of Additional Garment Orders

<table>
<thead>
<tr>
<th>Orders</th>
<th>Production Inputs</th>
<th>Profits and Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female-owned firms</strong></td>
<td>Female-owned firms increase wages and input expenditure.</td>
<td>Female-owned firm sales and profits increase.</td>
</tr>
<tr>
<td>Female-owned firms' non-experimental orders and sales do not.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male-owned firms</strong></td>
<td>Male-owned firms do not increase any production inputs.</td>
<td>Male-owned firm sales and profits do not.</td>
</tr>
<tr>
<td>Male-owned firms' non-experimental orders and sales decrease.</td>
<td></td>
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</tbody>
</table>

The gender profit gap closes during the order period.
Review of evidence

Interpretation

Background Evidence:
1. Profit gap composed of both lower quantity and lower mark-ups
2. Lack of customers is most reported barrier for female owners

Evaluation Evidence:
1. Female-owned firms absorb (expand for) experimental demand; male-owned firms do not
2. Gender profit gap disappears during experiment as order size increases

Overall Take-Away:
1. Male-owned firm behavior consistent with binding production constraints
2. Female-owned firm behavior consistent with binding demand constraints
Is demand a constraint for women-owned shops?

Supply of female-owned firms vs male-owned firms: 3 to 1

Demand is gender-segregated and women order approximately one more garment per year than men.

Female-owned vs. Male-owned Demand Ratio = 1.5

Gender Gap in Demand-to-Supply Ratio: $1.5/3 = .5$

1. Firm Census;
2. Market Research Survey:
Female entrepreneurs work in fewer industries

Number of Industries for Self-Employed by Gender - GLSS

- 1987-1988
  - Men: 1
  - Women: 1

- 1988-1989
  - Men: 4
  - Women: 2

- 1991-1992
  - Men: 4
  - Women: 3

- 2005-2006
  - Men: 11
  - Women: 7

- 2012-2013
  - Men: 13
  - Women: 14
Limited formal employment opportunities for women ->
  • Oversupply of female micro-entrepreneurs

Female micro-entrepreneurs crowding into few industries →
  • Lower market-size-to-firm ratio for women
  • Higher demand scarcity
  • Lower profits for female-owned firms
Policy implications

Our study suggests that:

- **Crowded industries** are a likely piece of the gender profit gap puzzle: male micro-enterprises face less competition.

- Programs that **expand women's opportunities to sell** their goods and services may be an important strategy for helping their businesses grow.
  
  - *This may help explain why programs that provide women with access to finance or capital have shown mixed results.*

- **More work toward understanding why sector and industry choice** differ by gender
Conclusions

- Micro-enterprises crucial in the developing world, especially among women.
- Large profit gap between women- & men-owned firms has remained a puzzle.
- Our findings suggest that demand-side constraints add to the gender profit gap
- Demand-side interventions may complement supply-side interventions
- Research/policies/programs focused on:
  - (i) increasing alternative labor market opportunities for women and
  - (ii) creating alternative customer sources for female-owned firms

may see strong results in the fight against gendered income inequality
Thank you!