Informal Firms and Financial Inclusion: Cross-country Evidence

Subika Farazi

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Defining Informality

- Market-based production deliberately concealed from public authorities (Schneider et al. 2010).

- Firms not registered with the registration office, municipality or tax authority (Informal Enterprise Surveys, WB).
Motivation

- 40-50% of official GDP (Schneider et al. 2010).
- Around 60% of labor force (ILO 2012).
- 70-80% of MSMEs are informal (IFC 2012).

Biggest Obstacle Affecting Operations of a Firm

Source: Informal Enterprise Surveys.
Objective

• Status of financial inclusion of informal firms.

• Financial inclusion informal vs. formal firms.

• Firm characteristics associated with financial inclusion of informal firms.
Data

• Informal Enterprise Surveys (IFS)
  – Informality = non-registration
  – Similarities with Enterprise Surveys
    • Format
    • Location
  – Differences from Enterprise Surveys
    • Country coverage
    • No time series
    • Not necessarily representative at country level
Sample – informal firms

• 13 countries – 3 from LAC and rest from SSA.

• Around 2500 firms (~ 300 small-sized).

• 46% of firms from LAC region.

• 38% low income, 31% each lower middle and upper middle income.

• 66% of observations from 2010.
Sample – formal firms

• Around 1500 formal firms.

• Only small-sized.

• Same year as IFS.

• Geographically same urban areas as IFS.
## Salient features of informal firms

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size - Micro (0-5 employees)</td>
<td>89%</td>
</tr>
<tr>
<td>Age - 10 years or less</td>
<td>74%</td>
</tr>
<tr>
<td>Owner's education level - No Education</td>
<td>6%</td>
</tr>
<tr>
<td>Owner with a job in a formal business</td>
<td>8%</td>
</tr>
<tr>
<td>Like to register</td>
<td>59%</td>
</tr>
<tr>
<td>Main reason for not registering - Taxes</td>
<td>26%</td>
</tr>
<tr>
<td>Most important benefit from registering - Access to finance</td>
<td>52%</td>
</tr>
</tbody>
</table>

Source: Informal Enterprise Surveys.
Use of finance: formal vs. informal firms
Bivariate Analysis

Note: The bars represent the percentage of firms in the sample that claim to have a bank account and a loan. Source: Calculations based on data from Enterprise Surveys and Informal Enterprise Surveys.
Sources of Financing Working Capital

Bivariate Analysis

Note: The bars represent the percentage of firms in the sample that identify using a given source for financing their working capital. Source: Calculations based on data from Enterprise Surveys and Informal Enterprise Surveys.
Multivariate Analysis: formal vs. informal firms

\[ FI_{ic} = a_c + b_1 \text{Register}_{ic} + b_2 F_{ic} + b_3 X_{ic} + e_{ic} \]

- \( FI \) is an indicator for financial inclusion for firm \( i \) in country \( c \).
  - Accounts
  - Loans
  - Sources of finance

- \( F \) and \( X \) represent firm-level and country-level control variables. \( a_c \) captures country fixed-effects.
Use of finance: formal vs. informal firms

Multivariate Analysis - Probit

Each bar shows regression estimates for a different financial inclusion indicator against registered dummy variable.
Multivariate Analysis: informal firms

\[ F_{lc} = a_c + b_2 F_{ic} + b_3 X_{ic} + e_{ic} \]

- \( F \) is an indicator for financial inclusion for firm \( i \) in country \( c \).
  - Accounts
  - Loans
  - Sources of finance

- F and X represent firm-level and country-level control variables. \( a_c \) captures country fixed-effects.
Use of finance: informal firms

Dependent Variable- Accounts

Each bar shows regression estimates for a different control variable for a dependent dummy variable equal 1 if a firm has an account and 0 otherwise.
Use of finance: informal firms

Dependent Variable- Loans

Each bar shows regression estimates for a different control variable for a dependent dummy variable equal 1 if a firm has a loan and 0 otherwise.
Use of finance: informal firms

*Dependent Variable- Source of finance*

Each bar shows regression estimates for a different control variable for a dependent dummy variable equal 1 if firm uses a given option as a source of financing and 0 otherwise.
Conclusion

• Registration is positively associated with use of bank accounts, loans and bank financing of working capital.

• For informal firms, size, education of the owner and whether the owner has a job in the formal sector are significantly associated with financial inclusion.

• Financial inclusion can potentially promote firm growth and pave path towards formalization.