The Diaries Methodology for Women-owned Small Businesses
OVERVIEW OF SMALL FIRM DIARIES

FINANCIAL DIARIES METHODOLOGY
Weekly cash flow data for a year combined with extensive qualitative and quantitative surveys

FOCUS ON 3 SECTORS WITH GROWTH AND EMPLOYMENT POTENTIAL
Light Manufacturing, Agri-Processing, Services

GLOBAL: 7 countries

SMALL FIRMS: 1–20 non-family employees

FOCUS ON LOW-INCOME COMMUNITIES
~150 FIRMS PER COUNTRY
~30% WOMEN-LED FIRMS
FUNDING PARTNERS

Center for Inclusive Growth

BILL & MELINDA GATES foundation

argidius

fsd Kenya

Aspen Network of Development Entrepreneurs

UNESCAP
Basic Elements

- **High frequency visits** (weekly) to small firms over 12 months.

- **Quantitative cash flow** data

- **Qualitative interviews** about choices and decision making with firm owners, employees, and suppliers.

- Allows us to understand the complexity and volatility being faced by small firms.
One-time survey, month six:

- Revenue: $PPP 4,523
- Expenses: $PPP 1,788

Calculated Net Income: $PPP 2,735.

We could estimate annual earnings at $PPP 32,825.

One-time survey, recall month five, six, and seven:

<table>
<thead>
<tr>
<th></th>
<th>Month Five</th>
<th>Month Six</th>
<th>Month Seven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue ($PPP)</td>
<td>2,560</td>
<td>4,524</td>
<td>3,791</td>
</tr>
<tr>
<td>Expenses ($PPP)</td>
<td>1,732</td>
<td>1,788</td>
<td>1,566</td>
</tr>
<tr>
<td>Net Income ($PPP)</td>
<td>828</td>
<td>2,735</td>
<td>2,224</td>
</tr>
</tbody>
</table>

We could estimate annual earnings at $PPP 23,154 or similar.
DIARIES DATA: FEMALE FISH PROCESSOR IN KENYA

MONTHLY CASH FLOWS USING DIARIES DATA (PPP)

Calculated annual earnings: $PPP 16,316
Volatility (Coefficient of Variation): 60%
Growth (Slope of Line of Best Fit): $PPP 55
DIARIES DATA: GOING DEEPER ON MANAGING FINANCES

MONTHLY EXPENSES BY PAYMENT MODE (SPPP)

MONTHLY REVENUE BY PAYMENT MODE (SPPP)
### DIARIES DATA: FURTHER FINDINGS ON MANAGING FINANCES

#### TOTAL ANNUAL EXPENSES BY PAYMENT MODE ($PPP)

<table>
<thead>
<tr>
<th>Expense type</th>
<th>Cash</th>
<th>Mobile Money</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>$3,199</td>
<td>$17,607</td>
</tr>
<tr>
<td>Employees</td>
<td>$795</td>
<td>$1,924</td>
</tr>
<tr>
<td>Storage</td>
<td>$456</td>
<td>$640</td>
</tr>
<tr>
<td>Utility costs</td>
<td>$68</td>
<td>$87</td>
</tr>
<tr>
<td>Fuel</td>
<td>$0</td>
<td>$21</td>
</tr>
</tbody>
</table>

Annually, only 15% of raw materials are paid for in cash, while 30% of employee materials are paid in cash.

Qualitative data:
- Prefers mobile money for ease and security
- Needs multiple loans to cover business and personal expenses
- Needs cash to maintain an account balance in several locations to pay multiple loans
Diaries Data:

- Allows us to granularly measure size, financial performance, volatility and growth
- Provides an in-depth view on how firms use different tools to manage their finances
- Gives a qualitative understanding of the decisions made and challenges faced by female firm owners
4 KEY TAKEAWAYS

1. A Distinct Group
2. Stability Entrepreneurs
4. Fragile Jobs, Vulnerable Workers
A Distinct Group

WHO ARE SMALL FIRMS?

Some stylized facts

- They straddle the line between formal and informal. Most had any formal registration, a third or less paying taxes.
- They are banked…but not fully integrated.
- In all countries, roughly half of firms had an active loan during the study.
- They have assets—land, buildings, tools—and are better off than their workers.
ACCOUNT USAGE

*frequent use defined as 25% or more of transactions by value.

### Bank Account
- **Colombia**
- **Nigeria**
- **Kenya**
- **Indonesia**

### Cash box
- **Colombia**
- **Nigeria**
- **Kenya**
- **Indonesia**

### Mobile money
- **Colombia**
- **Nigeria**
- **Kenya**
- **Indonesia**

*for 25% or more of transactions by value*
Women-owned businesses in all countries had lower median monthly operating margins than men-owned firms while in most cases making up a larger portion of high earning firms.

- **In Colombia** women were more banked and formalized but overall smaller in size.
- **In Nigeria** a higher percentage of women were highly financially integrated despite being smaller and less formalized.
- **In Kenya** fewer women were high-earners; they were also less banked, less formalized, and less digitally integrated.
- **In Indonesia** women were unbanked at higher rates, however those who were banked used their accounts more often.
4 KEY TAKEAWAYS

1. A Distinct Group
2. Stability Entrepreneurs
4. Fragile Jobs, Vulnerable Workers
### STATIC BUT NOT STAGNANT

<table>
<thead>
<tr>
<th>Countries</th>
<th>Firms with no material growth or decline in monthly profit*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>43%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>53%</td>
</tr>
<tr>
<td>Kenya</td>
<td>63%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>49%</td>
</tr>
</tbody>
</table>

*Firms that fall between a narrow range of approx -40 USD to 40 USD of change in monthly operating margin (simple proxy for profit).*
### Stability Entrepreneurs: Few Tools to Manage Volatility

<table>
<thead>
<tr>
<th>Countries</th>
<th>CV of monthly revenues</th>
<th>CV of monthly expenses</th>
<th>CV of monthly operating margins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>52%</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>44%</td>
<td>65%</td>
<td>84%</td>
</tr>
<tr>
<td>Kenya</td>
<td>44%</td>
<td>57%</td>
<td>74%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>39%</td>
<td>44%</td>
<td>80%</td>
</tr>
</tbody>
</table>
## WHAT IS YOUR VISION FOR YOUR BUSINESS OVER THE NEXT YEAR?

<table>
<thead>
<tr>
<th></th>
<th>Stability Only</th>
<th>Both (&quot;Stability Entrepreneurs&quot;)</th>
<th>Profit Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>20%</td>
<td>50%</td>
<td>17%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9%</td>
<td>44%</td>
<td>39%</td>
</tr>
<tr>
<td>Kenya</td>
<td>11%</td>
<td>61%</td>
<td>25%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>28%</td>
<td>32%</td>
<td>33%</td>
</tr>
</tbody>
</table>
4 KEY TAKEAWAYS

1. A Distinct Group
2. Stability Entrepreneurs
4. Fragile Jobs, Vulnerable Workers
### FOR WHAT DO YOU USE CREDIT?

Would use a loan to:

<table>
<thead>
<tr>
<th></th>
<th>Address cash flow issues or buy inventory</th>
<th>Make an investment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colombia</strong></td>
<td>43%</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Nigeria</strong></td>
<td>57%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Kenya</strong></td>
<td>63%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td>46%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Note: Answer choices were not mutually exclusive.
## ACCESS TO CREDIT

<table>
<thead>
<tr>
<th></th>
<th>Had active loan</th>
<th>Use supply chain finance for credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>43%</td>
<td>13%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>46%</td>
<td>38%</td>
</tr>
<tr>
<td>Kenya</td>
<td>49%</td>
<td>28%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>54%</td>
<td>37%</td>
</tr>
</tbody>
</table>
4 KEY TAKEAWAYS

1. A Distinct Group
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4. Fragile Jobs, Vulnerable Workers
<table>
<thead>
<tr>
<th>Country</th>
<th>Paid less than 8 months</th>
<th>Paid 8+ months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>Kenya</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>57%</td>
<td>43%</td>
</tr>
</tbody>
</table>
CV of employee payments by number of months individuals received payment

- Paid from 3 to 8 months
- Paid 8+ months

- Colombia
- Nigeria
- Kenya
- Indonesia
RECOMMENDATIONS

1. **Design for Stability**
   Entrepreneurs

2. **Innovate Flexible**
   Financing

3. **Invest in Small Firm**
   Jobs
Thank you

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www.smallfirmdiarie.org