Can an output marketing intervention, where Farm Business Advisors (FBAs) rent boxes to farmers increase revenue for FBAs and farmers?

Supporting Horticulture Output Marketing: Evidence from the REFINE initiative

BACKGROUND iDE Zambia’s Farm Business Advisor (FBA) Program seeks to improve rural livelihoods via a corps of FBA entrepreneurs who connect geographically isolated farmers with inputs, markets, credit, services, and advice. iDE links FBAs with business partners and trains FBAs on sales techniques, irrigation technology, crop management, and output marketing. The Research and Evaluation Funds to Improve Non-subsidized Extension (REFINE) initiative supports the FBA program via operational research exercises designed to optimize components of the FBA model.

In early 2015, a situational assessment was conducted to identify strengths, challenges and areas of opportunity within the FBA program.

Unreliable horticulture market access was found to be a key challenge, with many farmers struggling with price volatility, high marketing costs, and binding commitments to predatory market agents.

Additional investigation revealed that packaging materials—in particular for tomatoes—could be a binding constraint for many farmers. In many Zambian markets, farmers are required to sell tomatoes using wooden boxes of a specific size. Because market agents are frequently the only ones with sufficient volume to own tomato boxes themselves, farmers are often tied to specific agents to sell tomatoes, making them vulnerable to high rental costs, agent commissions, and price “cheating”.

1 Other interventions related to transportation, market price transparency, and FBA crop aggregation, were also investigated. The packaging material intervention was ultimately deemed as the most promising intervention to pilot due to operational simplicity, generalizability and potential to unlock value for FBAs and farmers.
**iDE management posed the question:**

Can an output marketing intervention where FBAs rent boxes to farmers increase revenue for FBAs and farmers?

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**Pilot**

**Location:** Lusaka Province  
**TIME FRAME:** July – October, 2015  
**METHODS:** The REFINE team designed an intervention which equipped FBAs with tomato boxes to be rented directly to smallholder farmers. Renting boxes from FBAs could potentially enable farmers to reduce transport costs, box rental prices, market agent commissions, and unfair pricing practices by agents. The intervention could also enable farmers to sell at different markets that offer higher prices.

The intervention was piloted with five FBAs in rural Lusaka Province. Each FBA was provided a supply of 50-100 tomato boxes to rent out to farmers in their areas. FBAs were given discretion to set their own rental prices based on perceived market conditions, with most charging 1 or 2 Zambian kwacha per box rental. FBAs were also trained in crop aggregation, transport negotiation, and tracking of farmer harvest schedules.

**RESULTS:** FBAs were able to earn a small, but notable income from the pilot. Farmers cited improved market selection as the key benefit of FBA box rentals. Because the boxes were not tied to any specific market or market agent, farmers could better react to market prices and could choose to sell in markets with reduced operating costs. Many of these farmers chose to sell in peripheral markets, which they had previously been unable to access due to the lack of market agents and tomato boxes outside of central markets.

Another notable outcome was that some farmers who chose to still sell in the central market were able to negotiate reduced market agent commissions. Arguing that they were providing their own boxes, these farmers were able to pay commissions of only 5%, as opposed to the typical 10% fee.

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**Table 1: Individual FBA Earnings**

<table>
<thead>
<tr>
<th>FBA</th>
<th>Box Supply</th>
<th>Number of recorded transactions</th>
<th>Number of rented boxes</th>
<th>Total Earnings (14 July - 1 Oct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chongwe FBA 1</td>
<td>100</td>
<td>18</td>
<td>311</td>
<td>622</td>
</tr>
<tr>
<td>Chongwe FBA 2</td>
<td>100</td>
<td>9</td>
<td>260</td>
<td>260</td>
</tr>
<tr>
<td>Chongwe FBA 3</td>
<td>100</td>
<td>6</td>
<td>166</td>
<td>205</td>
</tr>
<tr>
<td>Chibombo FBA 1</td>
<td>50</td>
<td>13</td>
<td>111</td>
<td>222</td>
</tr>
<tr>
<td>Chibombo FBA 2</td>
<td>50</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>
LIMITATIONS: The pilot sample was small and not geographically representative of the larger FBA population. Box revenue was likely affected by startup time and late rains that was experienced during the pilot. No FBA was able to recoup the initial cost of the boxes (1000 ZMW, covered by iDE for the pilot) within the three-month period of the pilot. However, some FBAs would likely be able to cover these costs if given more time. Anecdotally, FBAs reported that the box rental business could help establish themselves as a more important focal point for output marketing, but no data were collected to confirm these observations.

Foundations for scaling up

The pilot revealed that the box rental intervention was a promising avenue to support FBA and farmer businesses. While limited in size, the program was an overall success in boosting FBA income and also showed indications of benefitting catchment area farmers. The success of the intervention in generating income and improving farmer market selection motivated iDE to scale the program to other areas across Zambia.

To ensure that the program design was optimized for all provinces, not just for the pilot districts in Lusaka, iDE hosted a workshop to solicit feedback and input from staff in Lusaka, Central and Copperbelt Provinces. Because FBAs would now be responsible for financing boxes on their own to ensure motivation in the business, the program model shifted to promoting a smaller start-up inventory of boxes. A final program model was established, and scale-up operations began in March 2016.

iDE has expanded the intervention to FBAs in three provinces, with approximately 20 FBAs currently participating. As of June 2016, FBAs have invested in over 600 boxes on their own. While take-up is still limited, iDE hopes that these pioneering FBAs can provide a proof of concept to other FBAs, encouraging more participation as the business opportunity becomes more apparent. Ultimately, iDE plans to include packaging material provision as a core component of future output marketing activities in Zambia.
iDE creates income and livelihood opportunities for poor rural households across Asia, Africa, and Latin America. iDE builds markets in a range of sectors, including agriculture, water, sanitation, hygiene, and access to finance.

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Reference materials available upon request


Read More: REFINE 3 Farmer Profile Report. A brief report containing a descriptive analysis of FBAs in Zambia that was carried out to assess the applicability of the vegetable packaging intervention to the broader FBA network.