East African Microenterprise Development: A Longitudinal Impact Assessment of Village Enterprise Fund

January, 2008

"We have been able to be self-reliant; I have work each day that has helped improve our lives." – Jesca Minayo, Kenyan Business Owner

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I. Background

Village Enterprise Fund (VEF) works to alleviate poverty in East Africa. The organization helps people living below the poverty line start a business and create sustainable incomes, by providing business training, seed capital grants, and ongoing mentoring.

VEF starts group-based businesses, each with five co-owners. A business leader is selected by each group to serve as the liaison with VEF and to help organize and lead the group's business activities. A local VEF business mentor recruits, trains, and provides on-going support to each group.

VEF focuses on an underserved group of people – the rural poor in East Africa – and plays a crucial role in the fields of microfinance and poverty reduction by providing grants, instead of loans. Many of the rural poor do not qualify for, or have access to, microfinance loan programs. By supplementing the financing with critical training and mentoring services, VEF gives the poor the confidence they need to run these businesses for the long term.

In late 2005, VEF began planning a program and impact evaluation study with the primary goal to evaluate how VEF business leaders, their families, and their communities had been impacted by VEF's program. Between September 2005 and November 2006, VEF interns surveyed a random sample of the business leaders throughout Kenya, Tanzania and Uganda and compared survey results with baseline data gathered before the leaders participated in the program. The longitudinal data gathered from this program and impact assessment demonstrates, with numerous indicators and measurements, that the lives of business leaders and their families were significantly improved 2 to 5 years after their businesses were funded. The data from this evaluation will help VEF staff better understand the successes, challenges and needs of VEF business leaders. In turn, this will allow VEF to refine its model and increase the overall effectiveness of its programs. Additionally, VEF hopes this information will help donors understand the benefit of their contributions to VEF.

II. Methodology

The study focused on businesses funded between 2000 and 2003 so that VEF could measure the sustained impact of its program on businesses operating for at least 2 and up to 5 years.

During this period, VEF funded 3,944 businesses. From this pool VEF randomly selected 393 businesses. Of these, 284 surveys – 72% of the selected businesses and 7% of all the businesses started in this period – were successfully collected and analyzed.

Data collection was completed using a quantitative and qualitative survey consisting of more than 100 questions. As it is very difficult for poverty evaluations to accurately measure changes in direct income, locally relevant socioeconomic indicators were used to measure VEF business leaders' standard of living.

The socioeconomic indicators used in the program and impact evaluation survey included information on food consumption, children's education, and various household assets, which are detailed below. To identify changes over time, this data was compared to baseline data gathered from the business leaders before they participated in the VEF program. The program and impact survey asked the same questions as the baseline survey plus additional ones.

VEF collects data on the standard of living from the business leader of each group *before* they apply for the VEF program in order to qualify the group to participate. This helps VEF target the neediest people in the regions where it operates. An added benefit of such data is that it provides a baseline for comparing changes in the standard of living as done in this study. This baseline data is a unique asset for VEF as most microfinance organizations do not collect such data on a systematic basis.

VEF did not run control groups to test whether other factors produced the results found here. Control groups are valuable but add cost and complexity. Without one already in place, this evaluation would been delayed 2 to 3 years. The lack of alternative sources of economic development – and the lack of related non-profit organizations – in the rural villages where VEF operates support the conclusion that the improvements documented here are largely, if not entirely, attributable to its program. VEF may consider using a control group in future evaluations.

The evaluation team faced many challenges in reaching and completing surveys with the 393 target businesses. Approximately 28% of the selected businesses could not be reached or their data could not be used due to factors that include:

- Difficulty locating the businesses and/or the VEF business mentors who started the business
- Some businesses were no longer operating
- Other businesses had moved or been displaced due to political instability
- The business leader had changed or moved so the original baseline data could not be used to compare with the program and impact survey data

Many non-profit organizations doing evaluation face similar challenges, and more research needs to be done to find cost-effective solutions to these challenges for future evaluations.

III. Results

Characteristics of VEF Businesses & Business Leaders

The characteristics of businesses surveyed varied across countries, reflecting VEF's emphasis on locally relevant business practices. The products and services offered by the sample of VEF businesses varied greatly within and between countries, but included the agriculture, livestock, manufacturing, retail, and service sectors. In Kenya and Tanzania, most of the businesses surveyed were retail businesses (68% in Kenya and 51% in Tanzania). In Uganda, the majority of the businesses (53%) were in the agriculture sector. Manufacturing businesses proved the least common in all three countries. Approximately 30% of the businesses in Kenya and Uganda and 14% in Tanzania reported that they offered more than one product or service. [See Table 1.]

The demographic data of the business leaders surveyed was fairly consistent. The average business leader surveyed is 33 to 35 years old and supports an average of 5 to 8 dependents. In Kenya, 61% of surveyed business leaders are women, compared to 59% in Tanzania and 47% in Uganda. (This is comparable to earlier VEF studies citing that 65% of all business owners – not just group leaders – are women.)

Table 1
Examples of Products and Services Provided by the Surveyed VEF Businesses

Business Category	Sub-category	Definition
Agriculture	Vegetables & fruits	Produce/cultivate cabbage, tomatoes, bananas, potatoes, pineapples, oranges, mangos, avocados
	Grains	Produce/cultivate maize, beans, groundnuts/peanuts, cowpeas, corn, coffee, sesame seeds
Livestock	Animal husbandry	Raise and/or trade sheep, goats, poultry, pigs, cows, chickens
Manufacturing	Tailoring	Dress making, sewing
	Carpentry	Furniture making
	Other	Brick making, charcoal, gold mining (Kenya)
Retail	Clothing sales	New clothes, second-hand clothes, school uniforms, khangas [1]
	Food trading	Meat, fish, vegetables, millet, maize, milk, onions, grilled peanuts
	Other	Household goods kiosks, including charcoal, salt, sugar, tea, matches, oil, paraffin, soap, bed sheets, firewood, cups & plates, kerosene
Services	Repair work	Bicycles, shoes, doors, windows
	Cooking/catering	Restaurant, café, cook and sell pancakes
	Other	Barber shop, hair salon, boda-boda [2]

[1] Khangas are an East African rectangular cloth of pure cotton in bold designs and with a border around it.
[2] A boda-boda is a bicycle taxi.

Impact on Business Leaders: Measurable Changes in the Standard of Living

Business leaders showed dramatic standard-of-living improvements over time. Comparing the initial baseline data collected to the program and impact assessment data, "standard of living" was measured using a variety of common and well-established indicators, including:

- Education: number of children in school
- Diet: number of meals eaten per day
- Household assets: type of home (mud vs. brick walls, thatch vs. metal roofing) and ownership of a kitchen house, bath shelter, latrine, bed and mattress
- Livestock value

Several key indicators showed consistent and significant improvement across all three countries while other indicators varied by country.

Education. Across all three countries, the percentage of school-age children in school increased considerably, from 68% to 95%, a 40% increase. In the areas where VEF operates, parents must pay for uniforms, school supplies and sometimes a school fee for the lunch program – a total cost of $40 or more per year per student. These expenses prevent the poor without a sustainable income from sending all of their children to school.

Table 2
Percent of School-aged Children Enrolled in School

	At time of baseline survey	At time of impact survey	Percentage increase
Kenya	65%	96%	48%
Tanzania	64%	95%	48%
Uganda	76%	95%	25%
In aggregate	68%	95%	40%

Diet. The business leaders in all three countries increased food consumption with the profits of their businesses. The average number of meals increased from 1.9 to 2.5 meals per day, a 32% increase. While this result was consistent across all three countries, the increase in Kenya was larger (53%) as they started from a lower baseline of 1.7 meals per day.

Table 3
Average Meals Consumed Per Day

	At time of baseline survey	At time of impact survey	Percentage increase
Kenya	1.7	2.6	53%
Tanzania	2.0	2.5	25%
Uganda	1.8	2.4	33%
In aggregate	1.9	2.5	32%

Household Assets. The number of business leaders affording basic household assets such as beds, mattresses and latrines and improving their homes increased after participating in VEF's program.

In all three countries, similar increases were seen in the percentage of households with iron sheet roofs instead of straw roofs, rising from 37% of respondents to 65%, a 43% increase.

Other improvements varied considerably by country, due to differences in local customs and personal preferences (whether to use profits to buy beds or build a kitchen shelter). In Kenya, for example, bath shelters increased by 138% and kitchen houses rose by 85% but none converted mud walls to brick (as this is rare in rural Kenya). In Tanzania, business owners invested in beds and mattresses (up 41% and 70%), in bath shelters (up 107%) In Uganda, business leaders who own at least one bed rose by 655% – from 9% before to 68% after – and one-fifth of respondents converted mud walls to brick. (See Table 4 below for more results).

Table 4
Ownership of Various Household Assets

KENYA

	At time of baseline survey	At time of impact survey	Percentage increase
Bed	73%	86%	18%
Mattress	67%	74%	10%
Bath shelter	29%	69%	138%
Latrine	90%	97%	8%
Kitchen house	40%	74%	85%
Iron sheet roof	47%	76%	62%
Cemented brick walls	0%	0%	0%

TANZANIA

	At time of baseline survey	At time of impact survey	Percentage increase
Bed	64%	90%	41%
Mattress	47%	80%	70%
Bath shelter	39%	81%	107%
Latrine	81%	97%	20%
Kitchen house	53%	66%	25%
Iron sheet roof	42%	74%	76%
Cemented brick walls	11%	31%	181%

UGANDA

	At time of baseline survey	At time of impact survey	Percentage increase
Bed	9%	68%	655%
Mattress	40%	96%	140%
Bath shelter	71%	86%	21%
Latrine	52%	82%	58%
Kitchen house	79%	92%	16%
Iron sheet roof	10%	29%	190%
Cemented brick walls	0%	21%	NA

Land ownership and land cultivation. For the purpose of this evaluation, land ownership included inherited land, rented land, and land owned by a family member. After operating their businesses, the percentage of land ownership increased 16% in Kenya, 37% in Tanzania and 20% in Uganda.

Cultivation of those lands rose significantly as well, except in Tanzania where much land where VEF operates is not cultivatable. The percent of land under cultivation (calculated only for business leaders who had land) rose 7% in Tanzania, 41% in Kenya and 29% in Uganda.

Livestock. In the rural villages where VEF operates, there are few banks for depositing savings, and those available charge high fees. It is common practice to convert cash savings into livestock. The baseline and program and impact surveys asked about the value of animals owned, the value of which increased significantly: the percentage change in value was 161% in Kenya, 571% in Tanzania, and 627% in Uganda. In some cases buying livestock represented a further investment in their businesses.

Table 5
Value of Livestock*
(Cows, chickens, goats, and pigs)

	At time of baseline survey	At time of impact survey	Percentage increase
Kenya	US $64	US $167	161%
Tanzania	US $7	US $47	571%
Uganda	US $56	US $405	627%

* Average value of livestock was reported in local currency and converted to US dollars. (Exchange rate at 08/01/06: 1 USD=73.78 Kenya Shillings; 1 USD = 1329.99 Tanzanian Shillings; 1 USD= 1852 Ugandan Shillings

Business Profitability. Interviewers attempted to measure business-level data on income and expenses, but calculating business profitability proved highly problematic for various reasons. For example, financial record-keeping varied greatly from business to business and sometimes records were not available at the time or place of the interviews. In some businesses, income and profits are highly seasonal and difficult to measure.

To address this issue, interviewers gathered data on the number of "good" vs. "bad" months experienced and the weekly or monthly income, cost and profits for these periods. The variations in the data collected on income and costs, however, made it difficult to report any meaningful summaries here. Further research needs to be done to develop a method for measuring business-level profit, as this would be a very useful indicator of success if it was reliable.

Impact on Women's Confidence and Autonomy. In addition to the changes described above, the study also captured a profound impact on female business leaders' sense of empowerment. Women were asked a series of qualitative, open-ended questions about their lives and what changed after receiving a VEF grant. In response, women not only referred to material changes – such as improved housing quality, increased quality and quantity of food, improved clothing, and money for medical purposes – but also reported increased autonomy and self-worth.

Such "intangible" changes were measured by asking women about changes in their relationship with their spouse, their sense of independence, equity within their households, their participation in activities, and their public image (their own impression of how other women in the community perceive them). For example, when asked if starting a business with VEF has increased her independence, a Kenyan business leader responded that it has "set her free," and because of the business she can now leave the house at will to care for the business. A business leader from Uganda reported that women in her community are "surprised in what [she] is doing, and see [her] as an example of what women can do."

84% of women specifically mentioned improvements in at least one of the above categories (relationship with their spouse, etc). Many women mentioned positive changes in more than one area. 29% of Kenyan women, 28% of Tanzanian women, and 94% of Ugandan women specifically described improvements in their relationship with their spouse.

One Kenyan respondent said, "[The relationship] has improved because now we live well and can help each other." In Tanzania, 71% of all women (including widows for whom the question did not apply) reported an increase in independence after operating their VEF-backed business. In Kenya, 54% of women and in Uganda 37% of women responded to having a more equitable household.

Additional Skills Desired

A section of the program and impact survey was designed to understanding the important skills and information about business the participants learned from the VEF program, and what additional topics they want to be trained on in the future, so that VEF could improve its training and mentoring program.

Business leaders would like VEF's business mentors to expand on general business skills and bookkeeping skills (Table 6) in their on-going mentoring. The business leaders stated that they are interested in developing skills associated with the latter phases of business development (such as diversification for successful, expanding businesses) and with the technical skills that are specific to their sector (such as agriculture and livestock).

Survey data on the knowledge received through mentoring suggested that a formal training program would be useful for disseminating business skills and knowledge more consistently across the region. The businesses surveyed received training through the mentoring process rather than a structured teaching session.

Table 6

Future Training Content Requested[1]

	Kenya N=86	Tanzania N=118	Uganda N=80
Increasing profit/business growth and diversification	23%	10%	11%
Running a business, general	20%	32%	19%
Bookkeeping	17%	8%	34%
Technical skills[2]	13%	41%	45%
Other[3]	11%	2%	1%
Sales/marketing	7%	5%	8%
Anything	6%	3%	6%
Management	5%	1%	8%
Teamwork/conflict management	1%	1%	1%
No response	24%	13%	1%

[1] Results do not total to 100% as respondents could indicate multiple training skills
[2] Mostly agriculture and livestock, but also tailoring, carpentry, cooking, mechanics and gardening
[3] Instruction books, dealing with losses

The evaluation was also very useful in identifying the most important training needs and topics. In 2007, VEF used this data and other input from its training staff and village business mentors to significantly revamp its training process and content. VEF has subsequently implemented formalized training curriculum that includes many of the training needs identified by this evaluation.

IV. Impact Assessment Studies in the Microfinance Sector

Impact evaluations are newly recognized as a critical tool for assessing the social return on investment of microfinance programs (to donors or investors) and for improving the quality of the programs. Few microfinance institutions, however, have thoroughly evaluated the impact of their programs on the standard of living of their clients due to the high cost of evaluation and/or the lack of interest or perceived need to do so. Many microfinance organizations measure the rate of loan repayment or the average number of loan cycles per borrower, rather than the changes in the standard of living of its borrowers.

In their Harvard Business Review article, "Beware of Bad Microcredit," Steve Beck and Tim Ogden confirm this problem:

> "The root challenge… is that microcredit, like most other social programs developed in the charity sector, lacks standardized, readily available, outcome-based measures that would enable good funding decisions. Repayment rates and other commonly reported measures tell us nothing about the impact of a program on poverty….[Investors in microfinance should] insist on a set of clearly defined measures of success – income growth, quality of housing, school enrollment and nutrition – for the programs [they] support and be willing to pay for it."
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> – Harvard Business Review, Sept. 1, 2007

The few studies that have measured a program's impact on standard of living vary widely in quality, depending on the amount of rigor and the methodology used to conduct the study. Most of the studies that have been done lack baseline information on the standard of living of its clients and instead use a control group, comparing socio-economic measures of those in the microfinance program against others not in the program (the control group).

VEF's longitudinal program and impact study - using well-defined measures such as changes in food consumption, school enrollment, housing assets, and value of livestock - is an important contribution to the industry. VEF hopes that this evaluation can be used as a tool for the microfinance and non-for-profit communities interested in evaluating their programs.

V. Next Steps

VEF sees an opportunity to use the results of this evaluation in three ways. First, the results have been reviewed by the U.S. and African staff and will be used to refine its programs. Areas under evaluation for improvement include:

- Additional training on management topics such as growth and diversification, and bookkeeping
- Training on specific technical skills, such as best practices in agriculture (irrigation, seed selection, animal husbandry)
- Improvements to VEF's outreach to the poor, ensuring that its business mentors target those who are among the most needy in their community
- Tools to help businesses grow, either to help them understand how and when they can afford a microloan or to organize savings and credit circles among themselves

Second, VEF will use the extensive learning from conducting this assessment to improve its evaluation process. Staff will re-evaluate, and consider expanding, the questions currently asked of each business before they begin (the baseline data). VEF will work to find better ways to ask and collect data on topics that were difficult to learn about, including business income and profits, before the next impact assessment effort. The organization is also interested in systematizing the process for an assessment study from start to finish. VEF will evaluate how often it should conduct such major studies and whether there is merit to shorter but more frequent efforts.

Interest is high – both within VEF and those watching the microfinance arena – in understanding the impact these businesses have on their village community. Anecdotal evidence suggests that the VEF program can inspire neighbors watching VEF business groups to start operating their own business. Local staff members making repeat visits to villages report a marked improvement in the mood and degree of optimism and entrepreneurship in the entire village after numerous VEF businesses have been operating.

Third, VEF hopes to share the results collected in this study, along with best practices in impact evaluation, with other microfinance organizations and related governmental groups. VEF firmly believes in the importance of microfinance and microenterprise development as a tool for poverty alleviation. With microfinance garnering a list of critics who question its effectiveness in truly pulling people out of poverty, (and admittedly there is some legitimate concern), the industry needs to work together to assess how and where microfinance does, and does not, help the poor.

V. Conclusions

The results of this evaluation affirm that Village Enterprise Fund's microenterprise development program improves the standard of living of its business leaders and their families, with significant increases in areas such as nutrition, children's education, housing quality, and the value of livestock (a primary form of savings).

A second conclusion is that there is enormous potential leverage from investing further in training. The qualitative feedback – beyond specifics reported in this summary – suggests that the training and mentoring components of VEF's program may be more important than the funding component. The population served by VEF is poorly educated and lacks any other resources in their village for learning how to start or run a business, and few alternatives exist for generating a steady income other than self-generated businesses. VEF hopes to become a leader in business training and to share its training resources with the microfinance field.

A final conclusion is that VEF contributes significantly to the microfinance sector's program and impact assessment efforts with this study. For this study, VEF interns researched other microfinance organizations to learn how they conducted evaluations and what data they gathered. While more organizations are now doing some form of evaluation, few have collected longitudinal data (that is, before and after data). VEF is somewhat unique in collecting baseline data for the business leader of every business group it launches and in following up with extensive evaluation to measure long-term, sustained changes in the standard of living.

To that point – that this study documents sustained changes in the lives of the poor – consider the profile of Agneta Mwavali, age 32, leading the Dairy Milk Sellers in Losengel, Kenya:

In 2002, Ms. Mwavali and the rest of her team members met with Margaret Embalabala, VEF's local business mentor, and began the process of preparing a business plan. Ms. Mwavali and her partners were soon awarded the first portion of the seed capital grant ($50) and began their door-to-door milk selling business. In 2006, Christina Riechers, a VEF intern, came to interview Ms. Mwavali. Prior to starting her business, she and her seven dependents were only able to eat one meal per day. Four years later, she was eating three times a day and able to afford protein in her diet and sugar in her tea. Before participating in the VEF program, only two of her five school-aged children were enrolled in primary school. At the time of the interview, all five of her children were in school and she had made numerous improvements to her home. Ms. Mwavali expressed deep gratitude for the opportunity to own a business that enables her to provide for her children's education and well-being. Committed to seeing her children through secondary school, Ms. Mwavali hopes to end the cycle of poverty for her children and their future generations.

Acknowledgements

Village Enterprise Fund is indebted to those who devoted many hours to the design, implementation, data analysis, and writing of this study.

Mary Rauner (PhD, Stanford University) served as external advisor to the evaluation design, data analysis, and report writing. Christina Reichert, Ann Olson, and Paul Velman conducted the Impact Survey interviews in Tanzania, Uganda and Kenya along with support from the VEF field staff to locate those surveyed. Caroline Bernadi took primary responsibility for data entry, data checking (validating accuracy) and data analysis.

Additionally Lauren Bouffard, Amy Chen, Jessica Harris, and Lyndsay Holley contributed significantly to writing, analysis, and editing.

We thank the VEF field staff in Africa for the time and energy they put into supporting the data collection work and helping the interviewers locate the business leaders surveyed: Jackie Kikuyu and Wilson Peru in Kenya; Richard Mazengo and Noel Joran in Tanzania; and Michael Ewalu and Charles Erongot in Uganda.

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