Investigating the Impact of Credit with Performance-Contingent Repayment in Kenya

Sector(s): Finance

Location: Kenya

Sample: 161

Target group: Adults

Outcome of interest: Business investment Credit balance/repayment Profits/revenues

Intervention type: Credit

AEA RCT registration number: AEARCTR-0004789

Traditional, debt-based microcredit with rigid repayment requirements and high interest rates has typically not had transformative effects on poverty. Researchers conducted a randomized evaluation to test whether a performance-based repayment contract could outperform conventional microcredit contracts, or fixed-payment loans, in improving business outcomes and welfare for micro-distributors in Kenya. Micro-distributors who received flexible financing, especially a hybrid loan that adjusted payments based on earnings, had higher profits than those with fixed-payment loans. They also restocked more often, expanded their sales areas, managed their businesses better, and repaid more.

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Microcredit, initially hailed as an effective tool for empowering microentrepreneurs in low- and middle-income countries, has faced scrutiny, as evidence has revealed that the tool has a limited impact on poverty alleviation and economic growth, on average. The conventional debt-based model of microcredit, characterized by rigid repayment plans and high-interest rates, often fails to stimulate the growth of high-potential but risky microenterprises.

Flexible microfinance contracts—relying on performance-based loan repayment rules—offer a viable alternative for microentrepreneurs. Such contracts link repayments to business earnings; in this way, they represent a more collaborative relationship between lenders and entrepreneurs than the relationship offered by traditional debt-based financing. This more flexible form of financing could encourage riskier yet potentially more successful investments. Do performance-based repayment models improve on the traditional approach to microfinance, and generate better business outcomes and welfare gains than traditional microcredit?

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In Kenya, microentrepreneurs often lack access to formal employment opportunities. In a 2014-2015 qualitative survey, micro-distributors, or small-scale entrepreneurs who deliver consumer goods like food and beverages to local shops, also cited the lack of transportation as a key constraint to business productivity. Owning a bicycle allowed micro-distributors to expand their sales networks, reaching customers farther from their stockpoints. In particular, distributors with bicycles generated a much larger share of profits from shops located farther away, showing that bicycles enabled geographical expansion.

Program participants were micro-distributors who sold chewing gum products and other goods. The average age was 31, 85 percent were male, and seventy percent were married.   On average, they earned about Ks 13,300 per month (roughly US$130 in 2018).

The program was implemented in partnership with FoodCo, a major global food manufacturer. FoodCo largely recruited and trained the micro-distributors and supplied the products they sold. This collaboration reflects a trend of private sector companies helping expand last-mile distribution networks in underserved markets.

A bike standing next to a shop in Kenya

Photo credit: Kate Roll

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Between 2017 and 2020 in partnership with FoodCo, researchers conducted a randomized evaluation to understand how different financing options affected the business growth of micro-distributors in Kenya.

The 161 micro-distributors were randomly assigned to one of four financing contracts or a comparison group. Each contract, if accepted, required an initial ten percent deposit, with the remaining ninety percent financed by a local lender. The contracts varied in repayment structure:

1. *Fixed monthly payment:* Participants repaid the cost of the bicycle in equal installments over twelve months, with an added fifteen percent fee.
2. *Profit-based payments:* Participants paid half the fixed monthly amount and added ten percent of their monthly earnings. This structure offered flexibility by lowering payments during slow months, but total payments could be higher if earnings were strong.

3. *Hybrid plan:* Like the profit-based plan, the hybrid plan also combined fixed and earnings-based payments, but with a cap: once the total paid matched the cost of the fixed contract, no further payments were required. This cap limited the total cost and protected against high long-term payments.
4. *Community-based plan:* Payments changed based on the average earnings of other distributors in the same region. This structure helped reduce the burden on micro-distributors if business was slow for everyone but did not discourage individual effort.
5. *Comparison group:* Participants were not offered bicycle financing under any contract. They continued with their normal participation in the FoodCo micro-distribution program.

All payments were made through Kenya's widespread mobile money system, M-Pesa. Researchers measured outcomes including changes in business earnings, restocking frequency, sales expansion, business management improvements, loan repayment rates, and broader household impacts.

Micro-distributors who received flexible financing, especially the hybrid loan that adjusted payments based on earnings, saw higher profits. They also restocked more often, expanded their sales areas, managed their businesses better, and repaid their loans more.

Financing uptake and debt: About 58 percent of micro-distributors accepted a financing contract, thus completing the required deposit and documentation to receive a bicycle. Take-up rates varied by contract type: around 69 percent of those offered hybrid and fixed contracts opted in, while approximately 47–49 percent accepted profit-based and community-based contracts.

Business performance: Micro-distributors who financed bicycles nearly doubled their monthly profits over three years,, primarily by selling more products and reaching more customers. Those who adopted earnings-linked contracts, saw the highest gains, consistently outperforming those with fixed-payment debt contracts. The hybrid plan led to an increase of KES 1,528.51 from a base of KES 897.45 (a 170.3 percent increase, or about US$14.70 from a base of US$8.63), while the profit-based plan increased profits by KES 781.65 (an 87.1 percent increase, or about US$7.52). GPS tracking showed that financed micro-distributors traveled further and restocked more frequently, supporting sustained increases in sales. Researchers suggest that flexible repayment structures allowed participants to prioritize business growth without the constraints of fixed payments, contributing to steady, higher earnings.

Contract repayment: Micro-distributors with hybrid and profit-based repayment plans repaid more of their loans over time. By the sixth month, those in the hybrid and profit-based plans were making higher payments than those in with fixed payments, reflecting stronger business growth. By month fifteen, repayment rates under these plans were higher (78–81 percent) compared to those in the fixed and community-based plans (58–59 percent). Researchers suggest that the ability to adjust payments based on earnings helped micro-distributors stay on track, while rigid repayment schedules made it harder to keep up.

Cost-effectiveness: A cost-benefit analysis found increased returns and operating income across all stakeholders, including distributors, FoodCo, stock sellers, and lenders. Across all financing contracts, the benefits of the program exceeded its costs, and the earnings-linked financing model was the most cost-effective during the study period.

Taken together, these findings suggest that flexible repayment structures can help small business owners grow their enterprises while also bringing benefits to suppliers and lenders. Policymakers and financial institutions may consider adapting these financing models in similar contexts where access to capital limits business expansion.

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