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Effects of financing mechanisms in enhancing commercialization: The case of banana marketing in Kenya

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Abstract

The initiative to promote tissue cultured banana in Kenya was taken up by several Research and Development (R&D) agencies in the last two decades with an aim of improving the income and welfare of smallholder resource-poor farmers in the region. Most interventions focused on improving production and producers' incomes. While farmers have intensified production and are marketing their produce, little efforts have focused on development of local markets, which are vital in spurring commercialization. Inadequate financing has been constantly cited as a major factor constraining agribusiness ventures. A study was conducted to assess financing mechanisms and their effects on banana businesses within the period March – April 2012. A total of 205 banana traders were randomly sampled from banana markets in Kirinyaga, Meru, Kisii and Nairobi Counties. A semi-structured questionnaire was used to collect data from the sampled traders. Descriptive statistics were used to characterize banana traders and enterprises. The study revealed that the majority of traders (82.4%) financed banana business activities through their savings while 17.6% accessed credit. However, the commercial level of operation of those who accessed credit was significantly higher than that of those who used their own savings. Thus, credit is important in supporting expansion of banana businesses and mobilizing banana trader associations for savings and credit access by members is likely to complement commercialization efforts.

Key words: Banana, commercialization, financing, traders

Introduction

Agriculture remains the focus of rural poverty reduction strategies in Sub-Saharan Africa but declining farm size is a major constraint limiting productivity. Interventions geared towards productivity growth and sale of surplus produce are envisaged as viable options of putting into economic use the small-sized parcels of land. These include improving access to high quality inputs (planting material, fertilizers and agrochemicals), enhancing farmers' skills and knowledge on production and post harvest practices, and sale of produce.

In Kenya, banana has traditionally been grown as a subsistence crop by women with most of the produce consumed at household level as a fruit (ripe bananas) and as food (plantain). Banana production declined sharply (by 50%) from 986,000 tonnes in 1992 to 489,000 tonnes in 1996 (Acharya and Mackay, 2008). The decline was attributed to crop infestations with pests and

diseases, particularly Panama disease, sigatoka, weevils and nematode complexes (Qaim, 1999).

The introduction of tissue culture bananas in Kenya, high-yielding (typically yielding twice the bunch weights of vegetatively propagated local varieties), fast-growing, early-maturing varieties were introduced that had better resistance and tolerance to pests and diseases was envisaged to have the potential to reverse this trend (AHBFI, 2007). The initiative to promote tissue culture banana was taken up by several public and private Research and Development (R&D) agencies which included International Service for the Acquisition of Agri-biotech Applications (ISAAA), Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya Agricultural Research Institute (KARI), Ministry of Agriculture (MoA), Technoserve, Africa Harvest Biotech Foundation International (AHBFI) and Genetic Technologies Limited (GTL). Most of the efforts focused on productivity growth and market linkages. Impressive adoption results and increased household incomes were reported among adopting households and TC banana was considered a commercially competitive enterprise.

However, little or no interventions focused on development of the banana market to enhance its ability to complement commercialization efforts at production level. As a result, despite increased production, the capacity of the market has remained the same which is likely to impact negatively on commercialization efforts. Limited investment capital has constantly been cited as a constraint limiting establishment and expansion of agribusiness enterprises (Mbaata, 2013). One source of capital is through accessing credit. However, information on the role of credit in banana trade remains scanty. In an effort to fill this knowledge gap, a market study was conducted to establish sources of capital for banana traders and the role of credit in the enterprises.

Methodology

The study area

The study was undertaken in counties where banana is widely grown i.e. Kirinyaga, Kisii, the Greater Meru and sold i.e. Nairobi. (Tschirley and Ayieko, 2009). The three banana growing areas are similar in many aspects including agro-ecological conditions, farming systems, population densities, cultural and economic activities.

All the selected banana producing counties a have high potential for increased production since they receive bimodal rainfall pattern with the long rains falling between March - May and the short rains falling between September - October. This favours crop and livestock farming as the main economic activity. The main cash crops grown include tea and coffee while the main food crops include maize, beans, bananas and potatoes.

Data collection procedures

The study utilized primary data collected in a market survey within the period March - April 2012. Local market centers were purposively selected in each county, the criterion being major markets for bananas. Key informant interviews were held with market committees. Each market committee has a member representing each commodity. Sampling frames were obtained from banana commodity representatives. Systematic sampling of banana traders in each market was done, where every k^{th} banana trader was

selected. The sampling interval (k) was calculated by dividing the total number of banana traders in each market by the target sample size for that market. A total of 205 banana traders were sampled and interviewed using a semi-structured questionnaire which had been pretested.

The questionnaires were administered by enumerators who were trained prior to the data collection period. The proportion of sampled traders drawn from four counties was as shown in Table 1.

Data focusing on trader and business characteristics and marketing was collected. Data coding, entry and cleaning was done using SPSS software. Descriptive statistics which included frequencies and cross-tabulations were generated using SPSS and used to characterize trader and business characteristics and practices. Variables analyzed included trader characteristics (gender, age, education, experience), credit characteristics (access, sources, purpose, amounts, repayment and effect of credit on banana trade)

Table 1. Sampled traders from different counties

County	Proportion (%) of traders sampled (N=205)
Meru	22.9
Kirinyaga	24.4
Kisii	29.3
Nairobi	23.4
Total	100

Results and discussion

Characteristics of banana traders

Gender

Banana has been regarded as a crop in women's production domain. The study revealed the involvement of women in its marketing, with the highest proportion (64%) of survey participants comprising of female traders while 36% comprised of their male counterparts. This implies that banana trade is also dominated by female entrepreneurs as shown in Table 2.

Most (96%) of the sampled traders were owners of the banana businesses, while 4% comprised of hired workers. This was an indication of the tendency of the entrepreneurs to run daily operations of the banana business rather than hiring labour.

Age

Banana business enterprises were owned and operated by both young and old

Table 2. Gender of sampled traders

Role of trader in the business	Proportion of banana traders		
	Female (n=131)	Male (n=74)	Total sample (N=205)
Owner	98	95	96
Hired worker	2	5	4
Total	100	100	100

entrepreneurs ranging between 22 - 76 years with a mean age of 38.8 years (std dev 10.1).

A higher proportion (58%) of the traders were relatively young (aged 40 years and below). This implies that banana business is an opportunity along the banana value chain that young people can harness.

Education

Education is an important determinant of an individual's entrepreneurial quest and impacts positively on the growth of a business. Majority (96%) of the sampled traders had at least attained basic education with the mean number of years of formal education being 8.9 years (std dev 3.5). This indicates that most of the traders in the research area had acquired the basic primary education. Only 4% had no formal education.

Experience

The level of traders' experience in banana trade ranged from 1 - 35 years, with a mean of 8.6 years (Std dev. 6.8). Majority (79%) of the entrepreneurs had traded in bananas for 10 years and below while 21% had more than 10 years' experience.

Financing banana business activities

Credit access

While lack of financial strength may impede the operations of an agribusiness, credit is an important factor in ensuring an agribusiness enterprise runs smoothly. Credit accessibility in the previous twelve (12) months amongst banana traders was assessed. The study revealed that majority (82.4%) of the sampled traders did not access credit while 17.6% did. Those accessing credit comprised 21.7% female traders and 17.1% male traders. Entrepreneurs who accessed credit obtained it from different sources as shown in Figure 1.

The study revealed that banana traders obtained credit from both formal (Microfinance institutions, Commercial banks and SACCOs) and informal sources (Merry-go-round groups and Friends). The highest proportion (30%) of

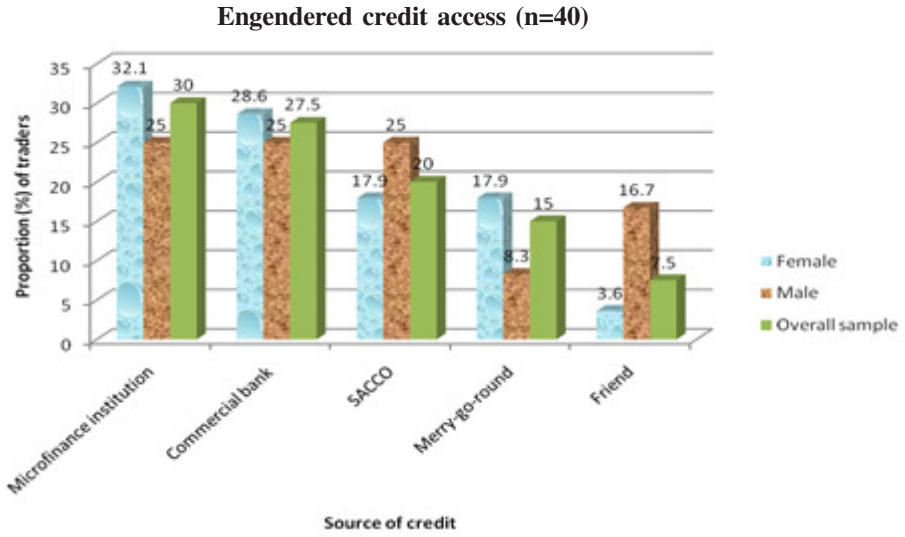

Figure 1. Engendered credit access by banana traders.

banana entrepreneurs obtained credit from microfinance institutions followed by commercial banks (27.5%). Female and male traders alike, were able to access credit from all sources. A Merry-go-round group comprises of members who come together and contribute an agreed amount of money or products regularly to the benefit of one or more members.

The amount contributed is given to one or more members in cash, products or both depending on the agreement. A position is assigned to each member to determine the order in which each member will benefit. In some merry-go-round groups, the amount contributed is given to each member at a time. Once all members have been given, the group has an option of commencing another round or disbanding. However, in other merry-go-round groups, some of the money is given to the benefiting member(s) while the rest is disbursed to members as credit and an interest rate applied.

Table 3. Purpose for credit accessed by banana traders

Credit purpose	Proportion (%) of traders (n=40)
Purchase bananas	92.5
Hire/purchase transport facilities	20
Hire labour	17.5
Hire premises / market space	10
Purchase ripening equipment	5
Purchase packaging materials	5
Establish banana orchards	5

Credit purpose

Traders who accessed credit used it for various banana-related activities as shown in Table 3.

The study revealed that credit was an important factor in the success of banana trade. Majority (92.5%) of entrepreneurs obtaining credit, used it to purchase trading stock (bananas).

Amount of credit

The amount of credit obtained by different traders was different as shown in Table 4. The study revealed that male traders obtained higher amounts (a mean of Kshs. 57,500) of credit than their female counterparts (Kshs. 35,785.71). However, the amount obtained was not statistically different ((at 10% significance level). The mean interest rates obtained by male traders was also slightly higher (14.91%) than that obtained by their female counterparts (13.36%).

An assessment of the amounts obtained from each source was conducted as shown in Table 5. The results showed that the highest amount (a mean of Kshs. 63,750.00) of credit was obtained from Microfinance institutions followed by

Table 4. Engendered credit amounts and interest rates

Gender of traders (n=40)	Amount borrowed (Kshs)		Annual interest rates (%)	
	Range	Mean	Range	Mean
Female	2,000 – 100,000	35,785.71	5 - 24	13.36
Male	5,000 – 200,000	57,500.00	10 - 18	14.91
Overall sample	2,000 – 200,000	42,300.00	5 - 24	13.79

Commercial banks (Kshs. 47,000.00) while the lowest credit amount was obtained from friends (Kshs. 9,333.33) followed by Merry-go-rounds (Kshs. 12,833.33). The highest annual interest rates were charged for credit obtained from Commercial banks (15.64%) followed by Rural microfinance institutions (15.17%) while the lowest annual interest rates were charges for credit obtained from Friends (10%) followed by Merry-go-rounds (10.33%). Despite the high interest rates charged by Commercial banks and Microfinance institutions, they were still more popular than the other sources of credit with higher proportions of traders (30% and 27.5%) sourcing credit from Microfinance institutions and Commercial banks respectively. This may probably be attributed to their ability to lend higher amounts as compared to other sources.

Credit repayment

Credit repayment status was assessed among traders who had accessed credit for the banana business. The results showed that a higher proportion (55%) had repaid their credit fully, 35% had repaid partially while 10 % had not started repaying.

Engendered credit repayment

Traders in different repayment categories were as shown in Figure 2. The study revealed that female as well as male traders who had accessed credit had the ability to repay with higher proportions of female trader repaying fully (57.1%) or partially (35.8%) as compared to 50% and 33.3% respectively amongst their male counterparts. A higher proportion (16.7%) of male traders had not repaid credit at all as compared to 7.1% of their female counterparts. This is a clear indication that female traders are credit-worthy.

Other sources of financing

While 17.6% banana traders had accessed credit, 35.6% needed credit but could not access it while 46.8% did not require credit. Traders who accessed credit did not finance all their banana business activities using the credit obtained. Likewise, traders who did not obtain credit financed different banana business activities through other means as shown in Table 6.

Traders who did not require credit financed different banana activities through an individual's (own) savings (82.6% traders), money saved through

Table 5. Credit amounts accessed from different sources

Source of credit (n=40)	Amount borrowed (Kshs)		Annual interest rates (%)	
	Range	Mean	Range	Mean
Microfinance institutions	5,000 – 200,000	63,750.00	5 - 20	15.17
Commercial banks	12,000 – 100,000	47,000.00	8 - 24	15.64
SACCOs	10,000 – 100,000	38,125.00	8 - 20	13.14
Merry-go-rounds	2,000 – 40,000	12,833.33	10 - 12	10.33
Friends	3,000 – 20,000	9,333.33	10 - 10	10.00
Overall sample	2,000 – 200,000	42,300.00	5 - 24	13.79

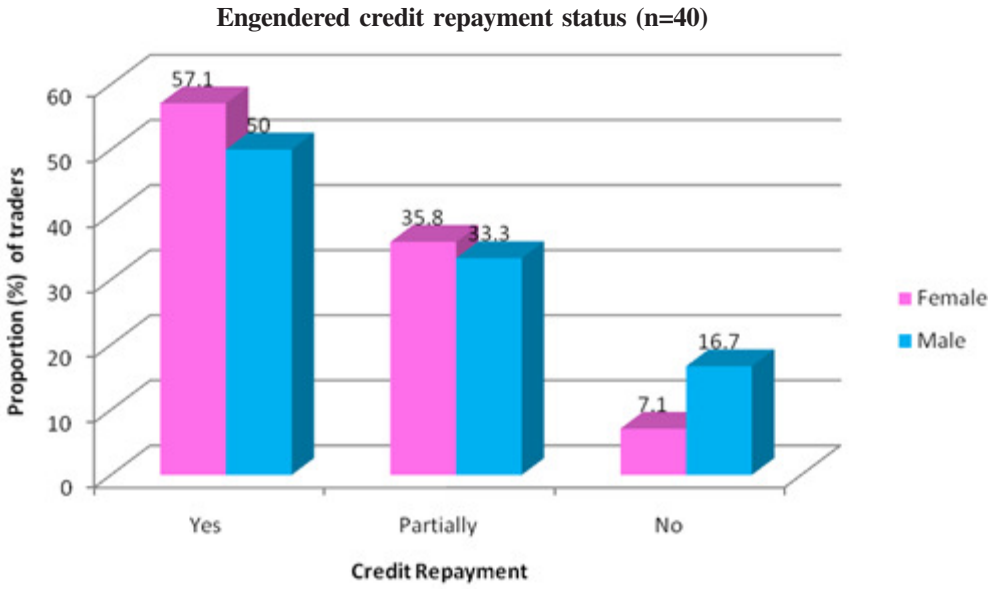

Figure 2. Engendered credit repayment status.

Table 6. Non-credit sources of financing banana activities

Banana business activities financed	Proportion of traders (N=205)	Proportion (%) obtaining from different sources		
		Own savings	Merry go round	In-kind credit
Purchase bananas	82.9	39.9	70.8	5.4
Purchasing/payment for transport facilities	65.4	23.1	83.6	6.7
Hiring labour	43.9	30	88.9	2
Hire premises/market space	41.0	91.7	25	1.2
Purchase packing/packaging materials	19.5	15	92.5	2.5
Purchase ripening equipment	12.2	84	16	8
Storage facilities	2.9	100		
Payment for ICT equipment (mobile phones, internet)	1.0	100	50	

merry-go-round groups (28.7% traders) and in-kind credit (4.3% traders).

Those who did not access credit financed banana business activities through other sources. The most common banana business activities financed without credit were purchasing the trading stock i.e. bananas (82.9% traders), purchasing/payment for transport facilities (65.4%), hiring labour (43.9%) and hiring business premises/market space (41 %).

Majority (82.6%) of the traders financed these activities from their savings. A smaller proportion (28.7%) using their savings through the merry-go-round groups while 4.3% obtained in-kind

credit from suppliers e.g. 5.4% of the traders obtained trading stock (bananas), did not pay suppliers on delivery of the bananas but after selling the bananas.

Some (35.6%) of the traders required credit to finance their banana business activities but could not access it. An enquiry into reasons for lack of access was done. Traders cited various reasons as shown in Table 7.

All traders who required credit and could not obtain it were scared of taking loans because they perceived borrowing as risky while more than a half (54.7%) cited high interest rates. With an increase in credit products targeting agricultural value chains, it is therefore important for financial institutions to disseminate information on credit accessibility options through financial education campaigns to demystify credit among traders.

The role of credit in banana business

An analysis of the role of credit in banana business showed that traders who accessed credit operated at a larger scale (with a mean of 156,550.17 kgs traded annually) than their counterparts (with a mean of 141,579.99 kgs traded annually) as shown in Table 8.

Access to credit increases the traders' working capital enabling them to obtain more trading stock (bananas). These results were subjected to *Levene test of equality of variance* and an evaluation of t-statistics shows that there is an overall statistical significance difference (at 5% significance level) in mean annual trading quantities among traders who accessed credit and those who did not. This finding was congruent with results presented in Table 3, which showed that majority (92.5%) of those who accessed credit used it to purchase bananas.

An enquiry on the trend of banana businesses was made based on the traders' perception on the business growth over the last three years. Results showed that majority (75%) of those who had obtained credit reported growth, implying an effect of credit on expansion. A higher proportion (67.2%) of traders reported growth as shown in Table 9.

Table 7. Reasons for not accessing credit

Reasons for not accessing credit	Proportion (%) of traders (n=75)
Borrowing is risky	100
Interest rate is too high	54.7
No lenders in this area for this purpose	29.3
Do not have the required collateral	21.3

Table 8. Role of credit on scale of banana businesses

Credit access (n=200)	Mean annual trading volumes (kgs)
Yes	156,550.17
No	141,579.99

Table 9. Banana business trend by credit access

Banana business trend in the past 3 years	Proportion (%) of traders (n=201)		
	Accessed credit	Did not access credit	Total sample
Expanded (grown)	75	65.2	67.2
Reduction	15	12.4	12.9
Remained constant	10	22.4	19.9
Total	100	100	100

Conclusion and recommendations

The study revealed that those who obtained credit operated at a higher commercial scale than those who did not. Thus, credit is important in supporting expansion of banana businesses. This would result in increased capacity at the marketing level to absorb more produce which is vital in complementing commercialization efforts at production level. Provision of information on sources of credit for agribusiness trade would enhance credit access for traders.

In addition, formation and mobilization of banana trader associations for savings and credit access would also enhance credit accessibility. Further studies to identify and create an inventory of available credit schemes for agribusiness traders are recommended.

The study further showed that 64% of the sampled traders were women. This finding is congruent with the general observation in local markets in Kenya where the market area allocated for banana is dominated by women. Women are often disadvantaged because they own fewer assets than males and have lower capital base. In complementing banana commercialization efforts, it is therefore vital to implement strategies targeting empowerment of women traders (e.g. through acquisition of business skills, business equipment and credit etc.) and have credit schemes tailored to women in agribusiness trade.

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