

Analysing the Role of Structured Finance on Productivity and Livelihoods of Small Scale Farmers in Zimbabwe

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Abstract

Developing countries' economies are at a critical development phase and Zimbabwe is not an exception. Focus is on uplifting the small scale farmers who face a myriad of challenges in obtaining working capital. Working capital availability is considered critical for affecting farm productivity and livelihoods. Conservative financial institutions have not been coming to the rescue of small scale farmers owing to lack of collateral and sound balance sheets. The study sought to establish whether structured finance affected productivity and livelihoods of small scale farmers. The findings of the study were that capital availability affected productivity. It was however established that for structured finance to be a success it was not to be applied in exclusivity. There were ancillary issues such as infrastructure, training and information provision which had to be taken into account.

Keywords: Structured finance, Productivity, Livelihoods, small scale farmer

1.Introduction

Agriculture plays a central role in the well being of developing countries' economies and their people. Hanmer and Booth (2001) state that in developing countries , an average of 50 per cent of people make their living from farming and agriculture and in some countries , this figure rises to 80 per cent.

There is an intimate relationship between poverty and agriculture. Three quarters of the 1.2 billion people who live on less than a dollar (US) a day , work and live in rural areas (Eastwood and Lipton, 2001). The arguments therefore confirm the findings of earlier studies which indicate that agriculture is key in the fight against poverty and must obviously play a central role in achieving the millennium development goals-MDG (Polaski,2006).

Agriculture is instrumental to future poverty reduction, (UNCTAD, 2007). Growth in the agricultural sector has a singularly more powerful impact on poverty reduction than any other economic sector .Hanmer and Booth (2001) support the same notion by indicating that a one percent growth in agricultural productivity reduces the number of people living on less than a US \$1 a day by up to 1.2 per cent.

The issues highlighted help bring to the fore the reasons surrounding the land reform program in Zimbabwe which gathered momentum around the year 2000. Having given people land , the government put in place various packages to aid and /or assist operations on farms. Most people who benefited from the land reform program are subsistence farmers who appreciate little on the aspect of commercialization. It is extremely difficult for small scale farmers to enter markets and it is a widely shared view that market entry is a function of both the competitiveness of the producer and the characteristics of the supply chains.

It is worrisome to note that the small scale farmers remain engraved in poverty. Government intervention has therefore not made the small holder farmer better off.

Finance is extended to farmers through government agencies comprising RBZ, Agri-Bank and GMB. Other organizations have been seen to be playing a part in a way. These include COTTCO, TIMB and Heifer Project International. The finance so extended is structured in a way. The motives of the providers of structured finance are questionable. It is difficult to tell whether the finance so extended is meant to alleviate the plight of small scale farmers or is meant to unjustly enrich the "selfish companies".

It is the aforementioned analogy which corroborates the observations by Onumah, Davies , Kleih and Proctor (2007) that agricultural marketing systems have changed and continue to change as a result of globalization and liberalization as well as demographical factors , particularly urbanization. These changes, argue Onumah et al (2007) have led to the emergence of new market opportunities but have also exposed producers to increased risks in terms of uncertain access to markets , price instability and the risk of counter-party non-performance. For instance , globalization has led to the accumulation of massive buying power by a limited number of companies , especially the international supermarket chains with associated narrowing of the supply base .As a result, large and integrated agri-business firms are edging out small family

farms (Montemayor, 2007).

The involvement of government and other organizations is indicative of problems affecting smallholder farmers. Prior to the late 1970s to early 1980s, agricultural marketing systems in most developing countries were characterized by pervasive government interventions intended to minimize the risk of famine and food shortages as well as to assure foreign exchange earnings and tax revenues from strategic agricultural export commodities (Akiyama, Baffes and Varangis, 2001). The dominant role of the state in marketing of agricultural inputs and outputs was also justified by the need to secure participation of small scale farmers and their involvement in cash crop production.

Varangis and Schreiber (2001) suggest that the institutional vehicles and policy framework employed by most governments in developing countries in promoting the production and marketing of strategic food staples and export crops included the following:

- Pan –territorial and pan-seasonal pricing policies, regardless of the cost of assembling produce from particular regions.
- Suppression of the private sector.
- Enforcement of formal commodity standards for most of the crops marketed by small scale farmers.
- Sole distribution by the state of subsidized inputs to producers.
- Promotion of cooperatives as intermediaries in the marketing chain, distributing inputs, bulking produce and marketing to the boards.

Akiyama et al (2001) further state that “marketing systems were inherited, in most cases from colonial administrations and subsequently reinforced as part of the state led development strategy and social planning framework as influenced by the Soviet Development Model (SDM). Hubbard (2003) claims that the beginning of the 1980s saw mounting empirical evidence indicating global failure of the SDM. The interventions, argues Hubbard (2003) became an unsustainable fiscal burden, which gave rise to declining producer prices as small scale farmers bore the cost of such programs and failed to produce any significant quantities in both food and cash crops.

The involvement of government over time in the farming circles is indicative of problems and complexities surrounding small scale farmers. There has not been a clearly workable intervention policy by either government or organizations both in the business sector and donor communities. Small scale farmers in Zimbabwe and elsewhere do not have access to bank loans, especially term loans, neither can they access micro-finance (UNCTAD, 2004). This is because banks are very conservative in their lending practices, often recently having emerged from a bleak period of near insolvency.

Small scale farmers often do not have good balance sheets, collateral or even much of a credit history. To compensate for this, the government ran subsidized credit schemes through agricultural projects and development banks often with the support of donors. Loans were offered to farmers at less than market rates of interest. Experience with this type of lending was unfavourable since borrowers were reluctant to repay loans. Farmers need financing for working capital, investment in new equipment and systems that upgrade processes to facilitate increased supply to international and local markets (UNCTAD, 2001). Failure by small scale farmers to pursue such investments has resulted in their marginalization, particularly in international markets.

Smallholder farmers in Zimbabwe are unable to trade effectively with large buyers and users because they do not have sufficient capital to provide deferred payment terms on their own account as required by these users. Lack of investment, according to UNCTAD (2001), leads to high losses and the inability to meet standards. Without working capital, farmers are forced to sell at harvest time when prices are low. It is thus difficult to break the cycle of poverty since lack of capital leads to low income, which contributes to lack of capital.

As a result of failure to access finance, small scale farmers have faced a multitude of challenges. Hubbard (2003) lists these challenges as:

- Producer margins have been squeezed because of longer supply chains involving large numbers of small scale traders as assemblers and the transfer to producers of the increased cost of assembling due to poor rural infrastructure.
- Produce quality has become more variable due to a number of factors, including scaled down extension services, lack of inputs and weak enforcement of commodity standards by assemblers trading in volumes rather than quality. The consequent loss of quality premiums often implies lower household income.
- Access to market is uncertain partly because the assemblers are severely undercapitalized and unable to absorb large volumes at the peak of the harvest, thus depressing farm-gate prices obviously to the detriment of the small scale farmer.
- The abolition of state guaranteed pan-territorial / pan-seasonal pricing implies farmers face high price risks but lack access to mitigation mechanism.

It is the aforementioned brief which gave rise to the need to explore the impact of structured finance as alternative intervention mechanism on the productivity and livelihoods of the marginalized smallholder farmer. This was done cognizant of the fact that certain mechanisms have been tried, often yielding results way below points which qualify to be rated as successes.

2.Literature review

2.1.Definition of terms

- **Small scale farmer-** a farmer who derives livelihood from a holding of less than 2.5 hectares and around 10-20 heads of livestock (Thirtle, Lin and Piesse, 2003). Alternative definitions identify small scale farmers as resource poor persons. For example, the productivity of a small piece of irrigated land would probably match that of a much larger piece of rain fed or degraded land. Small scale farmers can also be defined from the labour angle, taking into account whether the family provides the majority of labour and whether the farm provides the principal source of household labour income (Narayanan and Gulati, 2002).
- **Productivity-** output per unit area put under production /cropping or return on a unit of currency invested in crop production. Kijne, Tuong, Bennet, Bouman and Oweis (2003) define productivity as the ratio of vulnerable output to input, the efficiency and effectiveness with which resources, personnel, machines, materials, facilities, capital and time are utilized to produce valuable output. It emphasizes that the output should be valuable to a certain person or group.
- **Livelihood-** a livelihood is defined as comprising the capabilities, assets and activities required for a means of “living“. A sustainable livelihood is achieved when a livelihood can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney, 1998). Livelihoods are shaped by a multitude of economic, political and social forces and factors and they vary between economic necessity on the one hand and choices on the other hand (Kabeer and Ang, 2000; Dolan, 2002; Ellies, 1998; Bebbington, 1999). Livelihood options are mediated by a number of external factors. They are also conditioned by the composition and internal dynamics of the households (Upton, 2004).

2.3.1 Defining structured finance

In 2002 as much as 75 per cent of the crop was lost and all 41000 villages were declared drought stricken in India's state of Rajasthan (UNCTAD, 2005). Farmers who needed to buy seeds for the next harvest season had to approach money lenders, since many of them, being landless, had no collateral or third party guarantees. UNCTAD (2005) indicates that finance was available, but at an interest rate of over 10 per cent per month, a figure which was unaffordable by many. Such credit constraints can lock farmers into vicious cycles of poverty. Fortunately for these farmers, a few Indian banks and agro-industrial firms have developed new financing schemes which require neither land collateral nor third party guarantees. While micro-finance (the standard approaches of which are not very suitable for agricultural lending) depends on the strength of social relationships rather than on individual borrowers, these new financing schemes depend on the strength of commodity supply chains.

This form of finance is termed structured finance in western banks (UNCTAD, 2005:13). Gitman (1982) defines it as the art of transferring risks in finance from parties less able to bear those risks to those more equipped to bear them in a manner that ensures automatic reimbursement of advances from the underlying assets. DFID (2006) advances the fact that banks in developed countries have used this financing mechanism since the late 1980s as a way to continue providing finance to developing countries, despite the perception of increasing risks. The mechanism indicates UNCTAD (2004) has proved to be resilient even in times of severe economic crisis. Collier (1997) states that there are assets important to ensure the functionality of structured finance, namely inventory and export receivables. Essentially therefore, structured finance mitigates risks associated with transactions through the incorporation of predictable cash flows in the structure. Gitman (1982) supports this by proclaiming that structured finance aims at providing working capital in difficult environments by mitigating the risks associated with exposure through mortgaging the produce. The evidence presented confirms the findings of earlier studies that commodities that farmers produce are used by developing countries' banks as collateral and such collateralized lending can have three components, that can be used separately or as a combination: crops in the field as collateral, crops already produced as collateral and crop sales as collateral (Block and Hirt, 1992).

Contract farming is another dimension of structured finance which is widely used. Companies are providing product service offerings to farmers that include an optimized set of fertilizer, seed and chemicals. The financing to acquire this optimized input bundle, a risk management program including product warranties, options and forward contracting arrangements, and insurance products and finally a contract or other arrangement to buy the finished product from the producer. In this arrangement, the product flow relationship is dominant and is used as a carrier to provide the inputs and financial service components of the package, (Boehlje, Hofing and Schroeder, 1999). Boehlje et al (1999) state that contract farming provides many opportunities to both companies and small

scale farmers but one problem that may arise is a relation of excessive dependence. Successful implementation of contract farming requires an adequate legal framework that ensures contract compliance by all parties.

2.3.2 Types of structured finance

UNCTAD (2003c) cites three types of structured finance, that is export receivables backed financing, inventory financing and prepayments. Export receivables backed financing requires the assignment of sale proceeds to the provider of finance (UNCTAD 2003d). The importer under this arrangement makes payment to escrow account which is controlled by the bank. The loan is repaid from the escrow account and the excess after agreed deductions is paid to the exporter, (UNCTAD 2003c). This type of structured finance does not however become useful when small scale farmers are put into perspective. This view is shared by Gitman (1982) who states that export receivables backed financing is mainly targeted at exporters and companies which are well established.

Inventory financing is made with recourse to the producer whereby the security is provided by an assignment of the commodity stored in a warehouse and the repayment comes from export proceeds paid by future buyers directly to the lender (UNCTAD 2003c). In the absence of a buyer having been identified, it is the only structured finance solution (UNCTAD 2003d). Like export receivables financing, the buyer pays sale proceeds into escrow account and the provider of finance is paid from this account. The excess is released to the producer/ small scale farmer.

In a prepayment, a loan is made without recourse to the buyer for prepayment of the commodity sold by the producer whereby the security is provided by an assignment of the prepaid sales contract and by an assignment of the commodity stored. These three types of structured finance are grossly simplified and without modifications will not assist the small scale farmer, argue Collier (1997).

2.3.3 Advantages of structured finance over other forms of finance

Looking at the problems surrounding certain avenues relating to the operations of forms of finance other than structured, it can be deduced that structured finance remains an option requiring further exploration. Structured finance helps improve the participation of the most vulnerable actors in the supply chain. It supports economic development and poverty reduction (UNCTAD, 2005). The most basic advantage of structured finance, adds the UNCTAD (2005) is to boost market efficiency through reducing transaction costs by concentrating trade in one place. Buyers and sellers save time and resources that would otherwise have been expended searching for suitable counterparties.

The UNCTAD (2005) further argues that an exchange facilitated through structured finance can act as an “island of excellence” in an otherwise disordered marketplace, extending high levels of performance and integrity across the supply chain and imposing discipline on the physical market. By defining standards for the acceptance of the products to be delivered to the exchange and applying a rigorous grading procedure, the exchange encourages producers to meet the requirements of the end users of the traded commodities. Structured finance can also be an important mechanism for overcoming new barriers to trade such as increasingly stringent sanitary and phyto-sanitary requirements.

Collier (1997) believes that given the difficulty, if not the impossibility, of solving the problem of price instability for commodities, the management of risk becomes a key goal of structured finance. Structured finance makes it possible for farmers to achieve price predictability and security, despite the volatility, over a crop cycle. Price risk undermines livelihoods, not just through direct loss of seasonal income but also by locking producers into a cycle of low investment and low returns. With greater certainty over the planting cycle, farmers can commit themselves to investments that yield longer term gains (UNCTAD, 2003c). It is further argued that farmers can commit themselves to investments that yield longer term gains, and they can invest in planting higher risk but higher revenue crops.

Structured finance essentially has a multitude of advantages over other forms of finance. It is for this reason that attention is being focused on structured finance as the possible remedy to deal with poverty that engulfs small scale farmers.

2.4.2 Why financiers use structured finance for small scale farmers

The majority of populations in Africa lives in rural areas and depends on small scale agriculture for food and income (Govereh, Jayne and Nyoro, 1999). The authors add that smallholder agriculture remains the major engine of rural growth and livelihood improvement. Meeting the challenge of improving rural incomes in Africa will require some form of transformation out of the subsistence, low input, and low productivity farming systems that currently characterize much of Africa. The observations by Govereh et al (1999), as broad as they are, put Zimbabwe into perspective.

In many areas of Zimbabwe, input intensification was promoted on food crops. Rohrbach (1988) observes the emergence of state led programs characterized by subsidized and interlinked credit-input-output marketing arrangements implemented by marketing boards. The same analogy is shared by Byelee and Eicher (1997) who see the arrangements as being contract farming in nature. The state led approaches drained the fiscus and became virtually unsustainable. This led to partial state withdrawal from input marketing, leaving the same small scale farmer exposed to the vagaries of the “rule of the jungle”. Many writers maintain that this phenomenon

warrants the implementation of structured finance to save and serve this special group, a view shared by Jayne and Jones (1997), Shepherd and Farolfi (1999). The Zimbabwean Government faced limited successes in stimulating food crop intensification, a scenario thought by Mosley (1994) and Dorward, Kydd and Poulton (1998) to be attributable to the evolving system's continued difficulties in discovering and reliably recovering credit to finance the intensification of smallholder food crop production.

High value cash crops represent a potential avenue for intensification of crops. Evidence from other parts of Africa shows that processes of agricultural productivity growth are often driven by cash crops featuring the development of interlocked credit, input and output markets (Von Braun and Kennedy 1994; Sheppard 1999). In the absence of cash crops, companies will not be willing to get involved.

Finance received as being specifically for cash crops will aid the small scale farmer in increasing output of food crops. Dorward, Kydd and Poulton (1998) believe that export-oriented cash crops may serve to stimulate smallholder crop productivity and income growth, provided that ubiquitous credit market failures are overcome through institutional innovations in farmer/market agent relationships. The authors focus on the potential for interlocked credit-input-output market arrangements to overcome problems of deliberate farmer default and help capitalize smallholder crop production.

Mosley (1994) identifies pertinent reasons making it necessary to target small scale farmers when structured finance is put into perspective. He is of the opinion that the price of food is instrumental in determining the modalities of moving into non-food cash crops as well as non-farm activities. Productivity growth in food crop production is critical to drive down the price of food and raise rural disposable and hence demand for products and services (IFAD 2006).

The beliefs of Mosley (1994) are echoed by Jayne (1994) who categorically puts forward a line of thinking to the effect that governments determine who to target through policy formulation. "Governments are likely for political as well as economic reasons, to encourage food self sufficiency and minimize dependence on imported food especially in countries featuring white maize, a crop with a limited world market" (Jayne 1994). Both Mosley (1994) and Jayne (1994) agree that the pressure for price and other forms of direct policy support for staple grain production has continued in many countries despite attempts to reform the grain sectors and this is likely to continue shifting away land, labour and capital resources from non-grain cash crops unless sufficient productivity growth in food crops is able to reduce such countries' perceived external dependence on grain.

It is from the views of many authors that convergence of ideas is centred on the notion that targeting small scale farmers is imperative for economic growth.

Primarily, the livelihoods of small scale farmers is of concern to the government and failure to attend to their agricultural productivity issues will be regarded as neglect of the citizenry and will threaten its hold on political power.

2.5.1 Importance of capital availability to small scale farmers

Acharya (2001) propounds that strengthening agriculture is critical for facing the challenges of rural poverty, food security, unemployment and sustainability of natural resources. The author goes on to impress on the importance of rural credit systems since most rural families, who form the largest part of small scale farmers, have inadequate savings to finance farming activities.

The need for small scale farmers to have capital is supported by Abbot (1987) who emphasizes that smallholder farmers must sell some produce if they are to have cash to pay for inputs and services that will raise their outputs and level of living. Abbot (1987) further states that enterprises must provide the necessary investment capital for fixed facilities and working capital for use until sale proceeds are received.

Small scale farmers tend to incur high transaction costs because the quantities of inputs they need and output they sell are small. They are often less well informed and have less bargaining power and important for them are the consideration and assistance they receive from the marketing enterprise in the form of capital and inputs (Siamwalla, 1978).

3. Research methodology

The research was premised on objectives four objectives, namely;

- To find out whether structured finance overcomes the problem of shortage of capital.
- To determine the degree of involvement of small scale farmers in setting prices in monopolized markets.
- To ascertain the degree of interference of structured finance on market entry.
- To highlight whether structured finance motivates farmers to surpass production targets to positively affect their livelihoods and farm productivity.

3.1 Research design, Population and Sample

Descriptive research was used. The argument for this course of action was premised on the notion that this type of research is conclusive in nature. Data describing the composition and characteristics of structured finance was generated. The target population was the small scale farmers in the Midlands province and organisations in the

province which were in one way or the other involved in providing finance to small scale farmers. Probability and non-probability sampling methods were used. Specifically, the research made use of judgemental sampling and stratified sampling to select financiers and small scale farmers respectively. 15 respondents were selected from five organisations that extend lines of credit to farmers. 90 small scale farmers were chosen to be part of the sample. The farmers were from the two districts of Chirumanzu and Vungu. The two districts in the province were a destination for internal immigrants seeking the fortunes associated with the land reform program. The farm sizes in these two districts are larger than the national average. There were three sub-groups (strata) were established in accordance with the types of crops grown. Farmers were put in groups according to whether their primary focus was on food crops, cash crops and both food crops and cash crops.

4. Discussion and findings

The participation of women in farming was very minimal. The reasons surrounding that scenario could be attributable to title to land. Household members had varying degrees of entitlement to land, often dictated by institutions like marriage, inheritance and parenthood. These institutions largely influenced the dynamics of land ownership. Governing structures concerning land were possibly seen to be directed by more informal processes like marriage arrangements and inter-household bargaining. This left women with chances of assuming title to land upon the deaths of their spouses, hence the small number of women in farming.

The providers of finance indicated that they were comfortable extending credit to farmers growing a particular crop. The beliefs of the providers of finance were premised on the issue of risk management. Those who were comfortable with only lending to growers of cash crops were overly conservative.

The type of crop grown was considered vital from the point of view of financiers because of its importance in limiting diversionary sales especially when dealing with farmers who lack honesty. Dorward, Kydd and Poulton (1998) support the views of the farmers by observing that food crops when grown alone suffer some disadvantages. Crops that farmers can process or store on the farm for long periods pose greater difficulties for firms to ensure delivery than industrially processed crops.

Nyoro, Yamano and Jayne (1994) indicate that while some cash crops are sold for cash, there is typically weak support from private market actors to actively promote the productivity of these crops through credit, input and management advice and forward markets for sale of output. Credit for food grain crops was only supplied by Agri-bank, a state owned bank and even in the case, eligibility was restricted. Farmers' access to credit. Farmers' access to credit differed across regions even in cases where they grew similar crops, reflecting differences in the financiers' ability to recover the credit through interlocking arrangements (Nyoro et al, 1994).

A number of issues are at play to determine the availability of capital to small scale farmers through structured finance. Essentially, no one determinant is enough to guarantee capital availability without an interplay with other observed determining variables. It was established that, in the event of farmers receiving finance, the risk to the financing establishment, was supposed to be measurable and reduces as much as possible.

Capital largely determines the vulnerability context of small scale farmers. Access to financial markets affects the ability of small scale farmers to access agricultural markets. Farmers, because of the almost non-existence of formal rural financial institutions, rely on contract farming to access credit for inputs.

5. Conclusions

It was realised that structured finance made capital available to small scale farmers and averted the problem of shortage of capital. The capital is important in aiding both pre and post harvest operations. The type of crop grown determined whether farmers were able to have lines of credit extended to them.

The independence of farmers in setting prices was not guaranteed under structured finance. Drawing comparisons between structured finance and structural adjustment programs in Africa, the recipient does not autonomous decisions. Its not only the price of the produce that the small scale farmer can not make decisions on but even the type of crop to grow.

Market entry barriers are defined and shaped by a number of issues ranging from imposition of standards, physical infrastructure to training and extension services. Farmers believed that standards were crucial in lowering market entry barriers. The same standards can only be made possible if capital is made available to small scale farmers.

Structured finance helps in increasing productivity and positively affecting the livelihoods of small scale farmers. Structured finance is generally acceptable and relied upon ahead of other mitigating mechanisms such as micro-finance, term loans and trade credit.

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