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Constraints to financing agriculture in Namibia

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Abstract

Financial constraints to farmers in Africa have been a long-standing problem, but most of the literature on this topic in Namibia and elsewhere has been descriptive. The aim of this paper is to *explain* the causes of financing constraints. It does so by focusing on agricultural Small and Medium-scale Enterprises (SMEs) in Namibia. The research employs a qualitative research methodology made up of the purposive-judgement sampling and the Noticing, Collecting and Thinking approach in analysing the data. The study shows that there is a lack of collateral and poor loan recovery on the supply-side while on the demand-side, the provision of insufficient capital and bureaucracy are the biggest constraints preventing a number of agricultural SMEs from accessing finance from formal financial institutions. These findings have major implications for the role of the state in financing agriculture in Africa.

Keywords: Agriculture financing; Namibia; Small and Medium Enterprises

1. Introduction

Sir Paul Collier, the British mainstream economist, has consistently denounced small-scale agriculture in Africa. Recently, he and his colleague (Stefan Dercon) claimed that "trying to fix market imperfection problems in the credit market is the best solution not promoting smallholder agriculture" (Collier & Dercon, 2014:93). The experience of Namibia, however, shows that Collier's analysis is oversimplified. The country is pursuing a smallholder-driven approach (MAWF, 2008) with constraints and opportunities that defy Collier's dualism. One of the desired outcomes of the NDP4 is for agriculture to experience average real growth of 4% per annum over the NDP4 period 2012–2017. As a major strategy

towards the realisation of this goal, continued financial and technical support is expected to be offered to those involved in agricultural production activities (NPC, 2013). This strategy warrants careful study, particularly because while smallholder activities abound in Africa (Elhadary, Samat & Obeng-Odoom, 2013), the state in Africa – much like described by Collier – has tended to be quite antagonistic to farming on a small scale, preferring instead to promote commercial and large-scale agriculture (Obeng-Odoom, 2015).

Our knowledge of small-scale agriculture, particularly its financial aspects, remains inadequate even though financial services in Africa continue to expand (Abor, Alagidede, Ocran & Adjasi, 2014; Both, 2015). Research on financial development in Africa has also grown in recent times (see e.g. Domeher, Frimpong & Appiah, 2014; Gwama, 2014; Mazanai & Fatoki, 2012; Ndikumana, 2001), but it does not centre on agriculture, a focus that can help to advance the global debate on financing development (see Both, 2015) and development finance more generally.

The paper addresses this gap by relating the research on finance to the financial constraints faced by SMEs in agriculture. Theoretically, the paper focuses on the so-called logic of market failure and, as a result, the need for government intervention. Eyiah and Cook (2003) cite imperfections in financial markets as one of the specific constraints to financial access for SMEs. Beck, Demirguç-Kunt and Maksimovic (2005) identified these imperfections as collateral requirements, bank paperwork and bureaucracy, high interest rates in comparison with the profitability of agricultural activities, the need to have special connections with banks, lack of money in the banking system and lack of access to financing for leasing equipment. However, Beck and Demirguç-Kunt (2006) found evidence that it was not only market imperfections that impeded SMEs' access to financial services but also their institutional weaknesses. Put simply, real-life markets contain varying and systemic degrees of imperfections from both the demand and the supply side (see Minot, 1986).

The formal contribution of this paper lies in the new data collected and the methodology adopted. Most of the literature on this topic in Namibia and elsewhere has used secondary information that was either from census data (e.g. Adongo & Deen-Swarray, 2006; High Level Panel of Experts, 2013; World Bank, 2013) or panel data and/or regression analysis (e.g. Guirkinger & Boucher, 2008; Obeng, 2008; Reyes, Lensink, Kuyvenhoven & Moll, 2012). Although these studies have provided a 'big picture' of financial access for small businesses, they have

not paid sufficient attention to the complexities that both farmers and financial organisations face every day that might have an impact on poverty in local communities. This paper, in contrast, goes further to describe and explain the phenomenon surrounding constraints to financing agriculture from the 'ground' using a naturalistic approach with narratives that highlight and illustrate key issues. This alternative approach reveals that a lack of collateral and poor loan recovery on the supply side and insufficient capital, bureaucracy and lack of collateral on the demand side are the biggest constraints to financing agricultural SMEs from formal financial institutions.

Following this introduction, the rest of the paper is structured as follows. Section 2 provides a conceptualisation of financial constraints and Agricultural SME finance followed by a review of literature of finance constraints outlined in Section 3. The methodology used is explained in section 4. The results are presented in section 5, while section 6 makes up the discussion and summary.

2. Conceptualizing financial constraints and agricultural SME finance

The definition of a 'financing constraint' or 'credit constraint' comes from the work of Stiglitz and Weiss (1981, as cited in Reyes et al., 2012). According to the definition used, certain individuals obtain loans while other individuals, who are willing to borrow at precisely the same terms, do not. Because lenders may take on risky project applications only at high interest rates, they refuse to raise the interest rate to eliminate excess demand and, consequently, may ration their supply of credit. This type of credit is referred to as quantity rationing and is therefore a supply-side credit constraint. On the demand side, risk rationing and transaction cost rationing are other forms of credit constraints identified. Risk rationing constraint refers to a situation where farmers may not seek a formal loan because the risk implied by the available credit contract is too high whereas transaction cost rationing constraint refers to a situation where farmers may not seek a loan simply because of high transaction costs. Growing empirical literature suggests that in rural areas of developing countries, credit constraints have significant adverse effects on farm output (Huppi & Feder, 1990), farm profit (Carter, 1988; Foltz, 2004) and farm investment (Carter & Olinto, 2003) whether for large-, medium- or small-scale enterprises.

The conceptualization of SMEs is similarly varied. Burns (2001) has argued that in order for a business to qualify as an SME, it should be subdivided into three parts, both the employee and the independence criteria have to be satisfied plus either the turnover or the criteria for the balance sheet should be met. However, Senderovitz (2009 as cited in Amiss 2012) is of the opinion

that there is no "one best approach" to defining SMEs and therefore the SME definition should be the result of a deliberate and well-grounded choice taking the methodology, purpose and/or content of the study into account. International Finance Corporation (2011:15) has therefore suggested that agribusiness SMEs can be thought of as those agricultural businesses that fit the general definition of an SME for a given country or region.

In Namibia, the acronym SME(s) refers to Small and Micro Enterprise(s) as opposed to Small and Medium Enterprise(s). There is no formal definition in the country that includes Medium enterprises. The following definition in Table 1 has been given to define SMEs in Namibia.

Table 1: Definition of Small Enterprises In Namibia

	Criteria		
	Employment	Maximum Turnover	Maximum Capital Investment
Manufacturing	Less than 10	USD81169	USD 40 584
Other businesses*	Less than 5	USD 20292	USD 8117

Source: (Tonin et al. 1998)

*=Agricultural Small Enterprises fall into the category of other businesses

Agribank refers to enterprises that are small, medium and involved in agricultural production as small- and medium-scale farmers as opposed to small- and medium-scale enterprises. Small-scale farmers are those who are farming on 3–6 hectares, and medium-scale farmers are those who are farming on 12 hectares. However, Kirsten and Van Zyl (1998) are of the opinion that the size of the land alone is not a good criterion to define small-scale farms. They argue that "Defining the 'viable farm' in terms of size alone had a profoundly negative effect on the relative profitability of farms smaller than the viable size" (Kirsten & Van Zyl, 1998:562).

This paper therefore combines the definitions of Agribank and Kirsten and Van Zyl (1998) to define a small-scale farmer as one who is farming on 3–6 hectares and has maximum annual turnover of less than US$20 292. A medium-scale farmer is one who is farming on 6-12 hectares and has maximum annual turnover not exceeding US$39 919. This paper argues that SMEs in the Namibian context shall be defined to include medium-scale enterprises as well. It would be ideal to review the existing definition to allow for comparisons.

2.1. Agricultural SME finance

SME finance typically refers to financial services that exist specifically for Small and Medium-sized enterprises (Beck, 2013).

Agricultural finance is defined as a 'sectoral concept that comprises financial services for agricultural production, processing, and marketing. This includes short-, medium-, and long-term loans, leasing, savings, payment services, crop and livestock insurance' (International Finance Corporation, 2011:13).

Combining SME finance and agricultural finance, Agricultural SME finance is therefore defined as financial services for small and medium enterprises engaged in agricultural production (i.e., farming) and production-related activities, such as input supply, processing, trade, wholesaling, and marketing (International Finance Corporation, 2011:13). Although the definition of Agricultural SME finance found includes the whole value chain, this paper only refers to Agricultural SME finance as financial services for small and medium enterprises engaged in agricultural production (i.e. farming) and not the whole value chain.

According to the International Finance Corporation (2011:17) there are four types of farmers engaged in primary agricultural production that would be considered agricultural SMEs. These are semi- commercial smallholders also referred to as subsistence farmers, commercial smallholders whose surplus crop production may be sold for cash, medium-sized farmers also referred to as emerging farmers who produce meaningful income from farming and part of the land may be used for commercial farming and lastly large farmers who produce and make their output in a professional manner and have access to a full range of financial services.

Because semi-commercial smallholders do not produce to make a profit and do not have access to financial institutions although financial inclusion is important, this study has concentrated specifically on the commercial smallholders,and medium-sized type of farmers in crop production in communal areas.

3. Empirical literature review: Identified financing constraints

The literature on financing constraints in agricultural SMEs has developed around six themes namely (1) collateral and land issues, (2) bank paperwork and bureaucracy, (3) risky – seasonality with long gestation periods, (4) poor access to markets and low profits, (5) lack of skills in agriculture and (6) information asymmetry. Each of these is reviewed in turn.

(1) Collateral and land issues

Land is no doubt an important asset to have in agriculture as it not only helps to increase farmers' confidence in what they are doing but may also improve access to financial services. Trzeciak-Duval (2003) avers that well-established property rights, particularly regarding the use of land, are of particular importance in the agricultural sector because they lead to the possibility of using land as collateral and credit constraints can be eased. Similarly, Foltz (2004) used survey data of randomly selected households engaged in irrigated farming in the Cap Bon region of north-eastern Tunisia to measure the credit rationing of households. He emphasises that having title to land is expected to have a greater influence on supply than demand because it increases collateral and creates a direct relationship to supply while land titles bring about an increase in demand through an investment demand equation, which in the end benefits lenders. This result is in line with the findings of Reyes et al. (2012:12) who used a panel data set from a survey conducted in 2006 and 2008 with 177 farmers and found that "possession of land reduces the probability of being credit constrained. Titled land may be used as collateral which helps formal financial institutions overcome adverse selection and moral hazard problem".

While studies by Eswaran and Kotwal (1986) and Cabannes (2012) in addition to those reviewed above have stressed the importance of land tenure in order to have better access to financial services on both the demand and the supply side, Gilbert (2002) has a different opinion based on his data gathered in the self-help settlement of Bogota, Colombia. His results show that having title to land does not necessarily lead to formal access to credit. In other words, land ownership makes little or no difference to the availability of formal sources of credit. Because of transfer uncertainty, the bank may not accept land as collateral because it may not be able to repossess it in case of default. Even when borrowers have title to land, they may not be willing to borrow because of fear that they may not be able to repay the loan. Similarly, a critical review of the relevant literature on land registration, access to credit and agricultural investment by Domeher and Abdulai (2012) agrees with Gilbert (2002) in explaining that owning land has failed to enhance agricultural investment because the demand side does not provide an incentive for investment for reasons such as widespread poverty in Africa, a lack of appropriate agriculture-based infrastructure and the highly risky nature of agriculture in Africa. The supply side, namely lenders, in contrast, does not look at land registration in isolation but also looks at where that particular land is located and whether it can be used as collateral. In addition, lenders' views are

that land registration does not change the profitability of agricultural activities or improve the repayment capacity of farmers. Domeher and Abdulai (2012) therefore conclude that the pursuit of land registration alone as an agricultural investment tool may fail unless critical factors are given priority. These include interventions by government to tackle the problems that have made African agriculture highly risky, unprofitable and unattractive.

Plainly, land is just part of the equation in gaining financial access, at least when it comes to agriculture, and not the solution. Beck (2013) surveyed the recent literature on the relationship between SMEs, financial deepening and economic development and concluded that loan classifications that relied completely on collateral were biased against SMEs that had less hard collateral available. Perhaps other types of lending requirements, such as relationship lending, should be considered.

(2) Bank paperwork and bureaucracy

Beck, Demirguç-Kunt, Laeven and Maksimovic (2006), whose data were taken from the World Business Environment Survey conducted in 1999 and 2000 in 80 developing countries, argue that agricultural and construction firms face greater obstacles compared to service firms, especially when it comes to bank paperwork, bureaucracy and high interest rates. For SMEs, processing loan applications usually takes longer due to the number of forms that they must complete, which makes it more difficult for them to even think about gaining access to finance from a formal financial institution. Bureaucracy, or red tape as it is often referred to, generally involves completing seemingly unnecessary paperwork, obtaining unnecessary licences, having multiple people or committees approve a decision and having to abide by various low-level rules that make conducting one's affairs slower, more difficult or both (Martini, 2013). Rehber (1998) note that farmers who are involved in contract farming run the risk of nonrenewal or termination of contracts for noneconomic reasons and losing timely receipt of desired quality and quantity of their products.

In order to reduce the bureaucratic process, some countries have adopted measures developed by the OECD in 2006 to reduce the regulatory burden on SMEs. Process reengineering is one. Within these measures, timeframe is established and 'silence is consent'. This means that institutions have a timeframe in which to respond to financial requests, and failure to do so implies that all the necessary conditions have been met (Martini, 2013).

(3) Risky – seasonality with long gestation periods

By isolating promising cases of emergent and innovative financing, risk mitigation and distribution models, the IFC identified key elements observed across various case studies in developing countries and found that challenges in lending to agriculture existed because of the risk associated with seasonality, with long gestation periods from planting to harvest. The result is that cash flows are highly seasonal and sometimes irregular, with earnings concentrated in certain times of the year. Because of this, there is slow income from agricultural SMEs as compared to SMEs in other sectors. For a financial institution, this means that short-term agricultural credit may need to be repaid in 'lumpy instalments', sometimes over multiple seasons. It also means that farmers require flexible and targeted savings and term finance products to meet their specific needs. From the banker's point of view, irregular repayment schedules make liquidity management more challenging and require costly investments in developing customised loan products in an unfamiliar sector (IFC, 2012).

(4) Poor access to markets and low profits

The main constraint faced by farmers is poor access to markets. In order to meet the demands of the consumers, food retailers usually need products that are packaged by their suppliers and are of high quality. Consumers usually look for these types of products from food retailers rather than straight from smallholders because the products from smallholders are perceived to be unclean and not of high quality. Based on a comparative analysis of international development activities in Africa, Latin America, Asia and the Near East, Minot (1986) claims that smallholders usually lack the capital to maintain the set standard and to meet this type of demand and that the lack of credible assurance of quality reduces the demand for a product to the point that the market disappears. Fibiger, Weber and Schnabel (2011) note that as a result of this, smallholders struggle to settle their debts because their profits are quite small due to marketing difficulties and harvest losses, and when the state steps in for those who are unable to pay back their loans, there are cases of abuse where loans are used for things other than the declared purposes. In Namibia, even if farmers produce, harvest and deliver their produce to relevant marketing agencies in the country, they still stand a chance of nonpayment for their produce, thus experiencing low profits. "After you harvest, they take your produce and go. Officials threaten farmers with eviction from the State-owned vineyards if they complain about the non-payment" (Haidula, 2015:1).

(5) Lack of skills in agriculture

On the one hand, using mainly secondary sources of information in examining the status of agricultural and rural finance in South Africa, De Klerk, Fraser and Fullerton (2013) argue that many financial institutions do not understand adequately how specialised the agricultural sector is and how difficult it is to succeed and/or transform from an emerging into a commercial farmer. On the other hand, the Agricultural Sector Skills Plan reports that farmers do not have the requisite skills to perform their work to an expected standard (Namibia Training Authority, 2013). However, Norton, Alwang and Masters (2015) posit that often the training provided in agriculture, especially in developing countries, does not correspond to the real conditions faced by farmers and that usually time spent in such training reduces time available for other relevant activities. The Ghana banking survey that used interviews with a number of stakeholders to sample their views on SMEs concluded that banks should invest in acquiring a good understanding of working with SMEs, irrespective of the industries or economic sectors that they operate in or the scale of their operations. This is crucial for banks-SMEs relationships and therefore important for the financial inclusion question (Pricewaterhouse Coopers Ghana, 2013).

(6) Information asymmetry

Imperfect information is usually the main reason for higher transaction costs, especially in rural areas where farmers are located. The opinion of Bartlett and Bukvič (2001) whose research was based on a sample survey of small firms in Slovenia and on an econometric analysis of the sources of firms' growth is that Information asymmetries between lenders and borrowers make it hard for banks to determine the real value of a project, and lead to credit rationing Stiglitz and Weiss (1981 as cited by Bartlett & Bukvič 2001). The high risk of credit to SMEs with information asymmetry may explain the relatively high interest rates charged to those borrowers, and the demands made on SMEs by banks for high collateral and loan guarantees (Bartlett & Bukvič, 2001:182)

Aleem (1990) used 14 informal money market lenders and their clients in Chambar, Pakistan, to examine whether high implicit interest rates charged reflected the actual costs of operating in that particular market. He found that due to imperfections, the lender was not motivated to reduce interest rates in order to increase the number of borrowers, even when rates were well above the lender's marginal cost of lending. Imperfect information available to farmers about the

terms on which loan contracts are being sold in the market implies that a lowering of interest rates is a signal that filters through to only a limited section of the market. This is a situation that occurs mostly with informal moneylenders; however, these types of lenders were beyond the scope of this study.

Trzeciak-Duval (2003) is of the opinion that sources of information are important to creditors to establish credit histories and to borrowers to obtain market information and to produce data. Because of a lack of information, a moral hazard problem usually arises. The latter normally occurs because individuals' actions cannot be observed and hence contracted on (see Holmstrom, 1979).

4. Methodology

The research methodology for this study derived from the objectives. In using a qualitative methodology, a case study research design by way of in-depth semi-structured interviews and document analysis was followed. According to Creswell (2013), qualitative research is an approach for exploring and understanding the meaning that individuals or groups assign to a social or human problem. The qualitative methodology was considered to be appropriate for this study because the researcher's aim was to interact with people in their natural settings, using a language that they understood and then finding out what meanings they attached to financial access for agriculture. Talking to participants in their natural settings was helpful in exploring and gaining insight into the topic under investigation. A semi-structured interview is a verbal interchange between two people where one person, the interviewer, attempts to elicit information. Although the interviewer prepares a number of questions well in advance, semi-structured interviews unfold in a conversational manner offering participants the chance to explore issues they feel are important (Longhurst, 2009). Semi-structured interviews allow the researcher to follow his or her own thoughts and probing techniques are allowed (Cooper and Schindler, 2011). A structured interview as opposed to an unstructured interview eases the researcher's task of organizing and analysing interview data. It also helps readers of the reports to judge the quality of the interviewing method and instruments (Bowen 2005:217). Given that the degree to which questions were structured depended on the whether one received finance from Agribank or not and whether they were small or medium-size. It is the participant's history and experience that decided which topics were important in the various interviews.

4.1 Sample and site selection

Purposive sampling is a nonprobability method of sampling whereby respondents are chosen according to the researcher's judgement as to their suitability for the projects. It is also referred to as judgement sampling (Sarantakos, 2005). The following criteria were included:

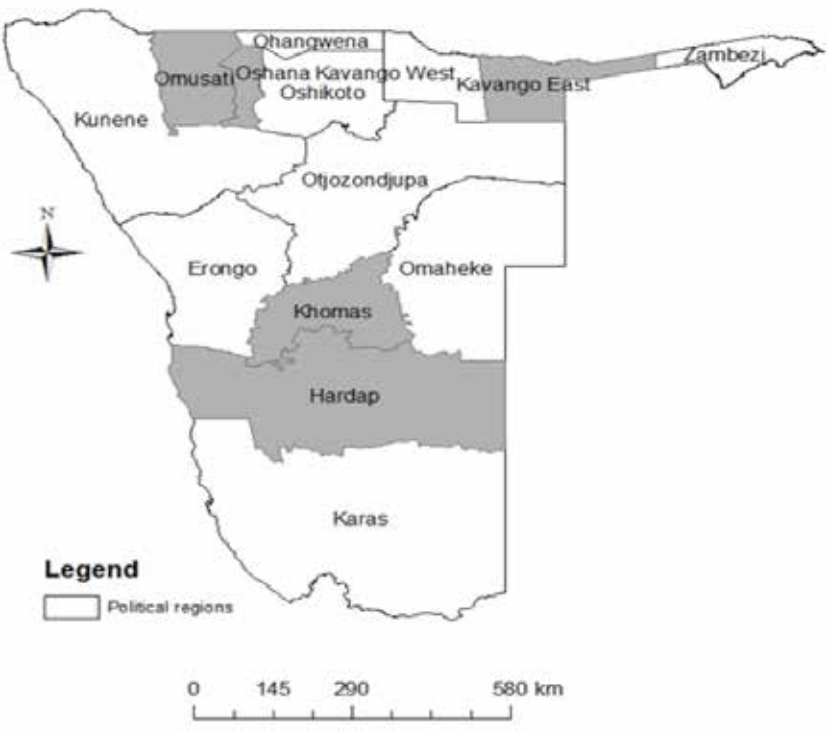
- Participants had to be involved in primary production with a farm size between 3 and 12 hectares.
- Participants had to produce to sell and not for family consumption..

Table 2 below provides the population list of the Green Scheme projects that fitted the criteria above that the researcher was presented with by the Agricultural Business Development Agency (AGRIBUSDEV) office in Windhoek, Namibia (To have a clear idea of the location of the Green Scheme projects in the country, see the map in Figure 1).

Table 2: Population List of The Green-Schemes

Green-scheme	Number of farmers (with valid contracts) in a green-scheme	Region
1. Etunda green-scheme irrigation project	9	Omusati region
2. Uvhunguhungu green-scheme irrigation project	10	Kavango region
3. Hardap green-scheme irrigation project	13	Hardap region
4. Ndonga-linena green-scheme irrigation project	28	Kavango region
5. Shadikongoro irrigation project	13	Kavango region

FIGURE 1: MAP OF NAMIBIA WITH REGIONS



Source: Stat planet[1]

To ensure that there was equal representation of the Green-Scheme projects from the list provided in terms of the location of regions in the country, the following Green-Scheme projects (with corresponding sample sizes) were judgementally selected per region:

1. Etunda green-scheme irrigation project - 5
2. Hardap green-scheme irrigation project - 6
3. Ndonga- linena green-scheme irrigation project -5

Table 1 in the results sections that shows the characteristics of all the participants (on the demand side) and the number of farmers analysed per region.

On the supply side, two interviews were conducted at the Agribank Head Office in the Khomas Region and Oshakati Branch in the Oshana Region to determine the constraints that Agribank experienced in financing agricultural SMEs.

1 Stat planet is software for interactive data visualisation and mapping.

a) Research measures and sample size

After ethics approval by the University of Stellenbosch Business School ethics committee and permission by Agribank had been granted, a total of 16 interviews were conducted for this paper (11 small-scale farmers and 5 medium-scale farmers were interviewed). Included in the 16 interviews were 3 independent[2] farmers in the same regions who were operating outside[3] the Green Scheme projects. These were Second Chance Garden in the Omusati Region and Pozere and Gamade gardens in the Kavango East Region.

The adequacy of only two interviews on the supply side is certain in the sense that besides Agribank having branches (six in total) in other regions, many of the decisions of these other branches go through Head Office (Khomas Region) before they are implemented. In addition, Oshakati Branch in the Oshana Region deals with farmers of various scales in four northern regions, which is the highest number of regions dealt with compared to the other four Agribank branches (in the Hardap, Kavango East, Caprivi and Otjozondjupa regions) that deal only with a maximum of one or two regions. Because of this, the researcher was sure to obtain more detailed information from the Khomas and Oshana regions than the other regions. On the demand side, the accessibility of the farmers, more especially farmers without Agribank loans, the willingness of participants to speak freely with the interviewer and data saturation determined the number of interviews conducted.

b) Research procedures

Participants were given informed consent forms to read. They were given the opportunity to ask any questions related to the study and had to sign the forms before the researcher could commence with the interview. All questions were translated into Oshiwambo (the language of the Omusati Region). For participants who could not understand the official language, English (For example in Kavango East region, many of the participants could only speak in rukwangari.), a person was used to help with translation in the Kavango East region as the researcher could not understand the language. The collected data were reported in such a way that persons could not be identified. The interviews lasted no more than 45 minutes each. The interviews were conducted between September and December 2014 at the interviewees' places of work, which were located mostly at the Green Scheme projects on the demand side and bank offices on the supply side. The interviews were taped and transcribed for analysis, and anonymity of the participants was ensured.

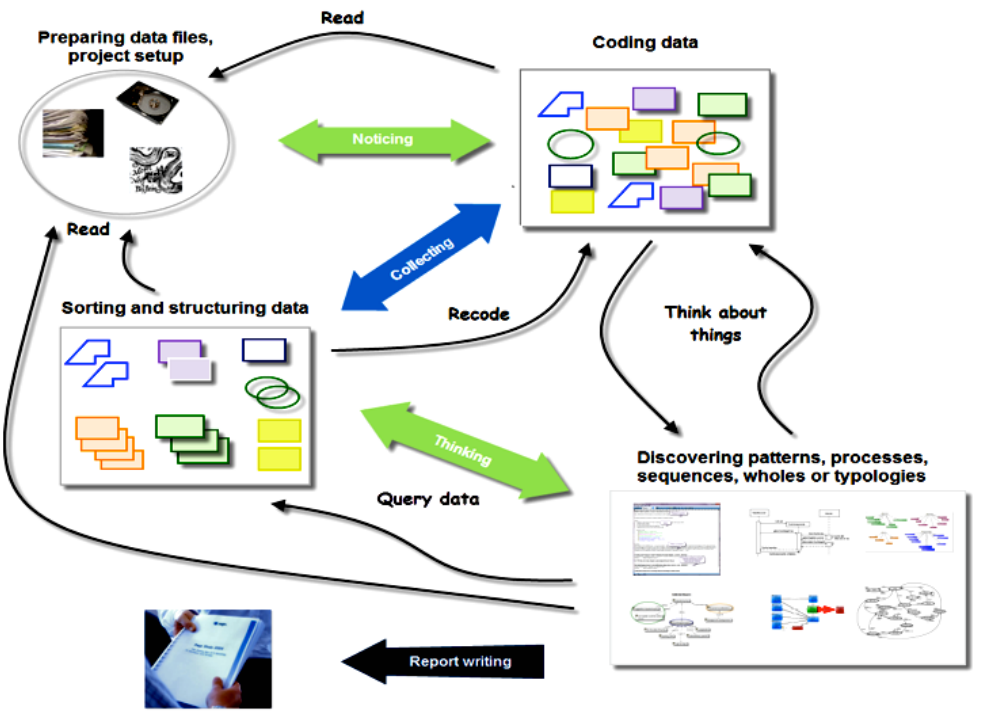
2 Independent in this paper means not receiving financial assistance from Agribank and/or operating outside the green-scheme projects

3 Identified by way of snowball sampling

c) Data analysis process

If qualitative research is to yield meaningful and useful results, it is imperative that the material under scrutiny be analysed in a methodical manner (Attride-Stirling, 2001; Pope, Ziebland & Mays, 2014). Content and thematic analyses were the main techniques for data analysis. To support the analysis, the software ATLAS.ti was used. For a computer-assisted analysis, Friese (2014) suggests the use of the NCT approach – Noticing things, Collecting things and Thinking about things. (see Figure 2 below).

FIGURE 2: THE NCT MODEL



Source: Friese, 2014:15

Noticing things according to Friese (2014) refers to the process of finding interesting things in the data when reading through transcripts, field notes, documents, reports and so forth. After data collection, interviews were transcribed, read through, cleaned up and uploaded into the ATLAS.ti software. It was during this process that noticing things in the data started. After the researcher had noticed the right information in the data pertinent to the research questions, collecting things began.

Collecting things refers to the process of naming things that one has noticed and grouping those things that belong together or have the same name. This is

referred to as coding. Codes relevant to the research questions were created, and themes were established. Data were then systematically examined to see ways in which themes were portrayed. This study employed an open coding with both an inductive and a deductive framework approach. Coding is defined by Cooper and Schindler (2011) as categorising and combing the data for themes, ideas and categories and then marking similar passages of text with a code label.

Thinking about things refers to the ability to think about things that one has noticed and collected in order to find patterns and relations in the data. The categories were refined through a repetitive glance at the data. During this process, subcategories or new categories of themes were identified and analysis continued until no new categories emerged. The research question memoranda were then set up and linked to the various types of constraints identified in the data.

Using the NCT method of analysis enables an analyst to work in a systematic manner (Friese, 2014). The main aim is to put all the findings together and gain a coherent understanding of the phenomenon.

In the findings section, illustrative comments are presented in the form of quotes for the various themes in order to provide a sense of what participants actually experienced.

d) Limitation

Namibia is a country with a highly dispersed population, the research only covered a small number of farmers, especially those without Agribank loans, and this may have created some bias. The reason for this is that independent farmers are difficult to locate because they are not farming in one place as compared to Agribank loan holders who are mainly found in Green Scheme projects. Nevertheless, many of the participants were representative because one farmer with an Agribank loan in a particular Green Scheme project could also have represented the entire Green Scheme in a region because of repetitions in farmers' interviews and therefore data saturation. The study mitigated the limitations by ensuring that both private and Green Scheme farmers were included in the study and ensuring regional representation. Furthermore, the research design employed allowed for the sample size used in this study.

e) Criteria for judging the quality of the research

According to Yin (2009), there are criteria to consider in judging the quality of the research. These are construct validity, internal validity, external validity and reliability. For this study, quality was ensured by doing the following: For construct validity, multiple sources of evidence, namely interviews, secondary

data and document analysis, were used. The secondary data documents provided the necessary information to make cross-references for the inferences from primary data.

For external validity, the results from this study may only be generalised to relevant theory used in carrying out the study and not to the population.

The reliability of the data for this study is solely attributable to the answers given by the interviewees. The procedures used in carrying out the study were documented to allow data collection and analysis by another researcher.

Internal validity is about establishing causal relationships. Because this study did not measure any relationships, internal validity is not applicable to the study.

5. Results

5.1 Characteristics of the participants

Table 3 below shows that the majority of the participants were male and had the highest average number of 8 and 9 years in business for independent and out grower farmers respectively. Furthermore, many small-scale farmers have Agirbank loans as compared to medium-scale farmers.

Table 3: Characteristics of participants

	Characteristics of farmers without Agribank loans						**Characteristics of farmers with Agribank loans in green-schemes**					
	Hardap		Kavango		Omusati		Hardap		Kavango		Omusati	
Sex	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Male	3	(100)	2	(100)	0	(0)	1	(50)	3	(75)	2	(50)
Female	0	(0)	0	(0)	1	(100)	1	(50)	1	(25)	2	(50)
Size of farm												
Small	0	(0)	2	(100)	1	(100)	1	(50)	4	(100)	3	(75)
Medium	3	(100)	0	(0)	0	(0)	1	50	0	(0)	1	(25)
Average number of years in business	2		8		3		2		4.25		9.5	
Average start-up cost	48300		2700		*-		170000		93600		63500	

(Footnotes)
Source: authors' data, fieldwork, 2014

Note: percentages may not add up 100% due to rounding. Amounts are displayed in US dollars.

*. The interviewee did not want to divulge the information

5.2. Financial constraints - Demand side

Demand-side constraints refer to difficulties experienced by borrowers, namely small- and medium-scale farmers, in accessing finance from financial institutions. Financing constraints were identified from two groups of farmers. One group included farmers who were receiving financial assistance from Agribank, and the other group was comprised of farmers without Agribank loans. Figure 3 below shows the constraints for farmers with Agribank loans, and Figure 4 shows the constraints for farmers without Agribank loans.

Figure 3: Financing constraints for farmers with Agribank loans

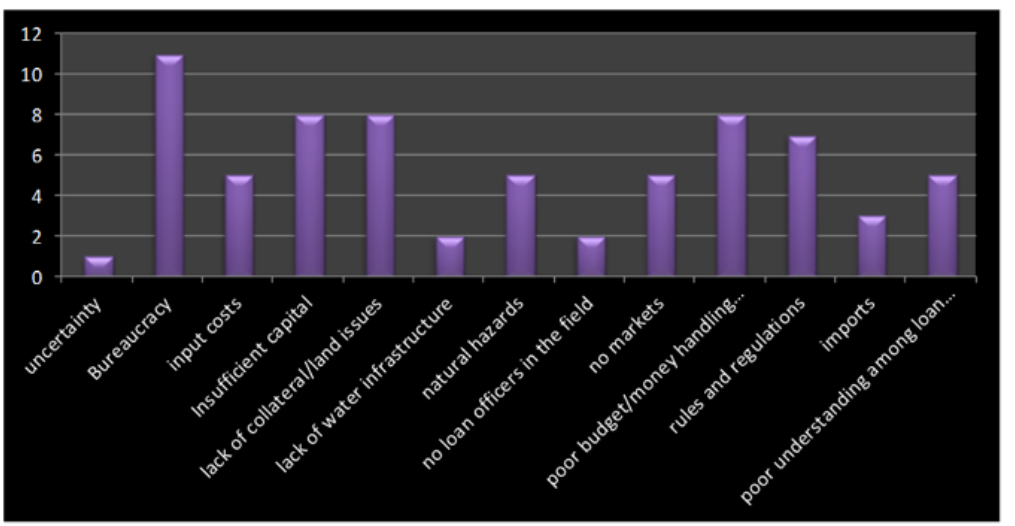
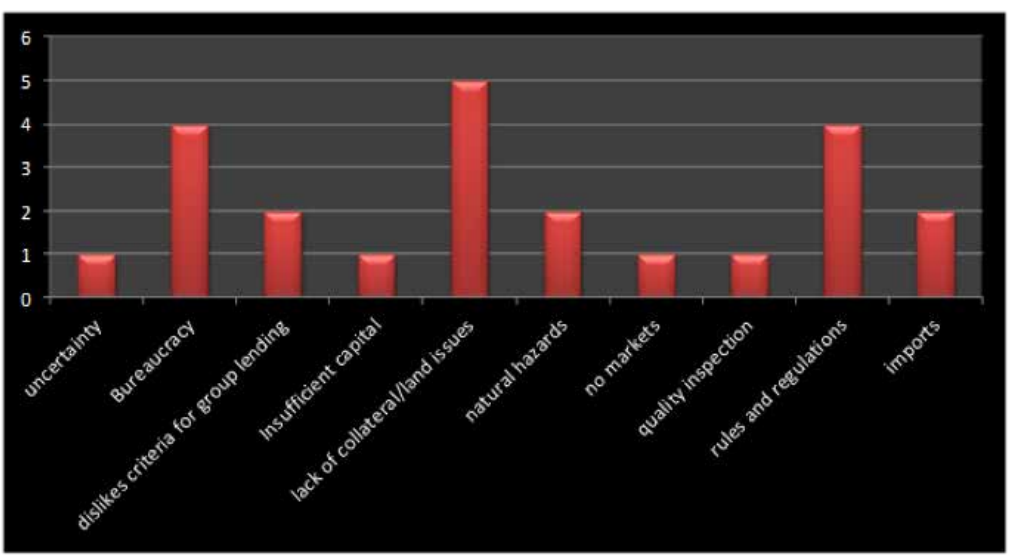


Figure 4: Financing constraints for farmers without Agribank loans



Source: authors' data, fieldwork, 2014

In combining the two groups of farmers, the top five issues identified were a lack of collateral and land issues, bank rules and regulations, insufficient capital, poor understanding among loan officers, and bank paperwork and bureaucracy. Only illustrative quotes by participants pertaining to the top five constraints are presented. However, quotes for the rest of the constraints are available on request.

5.3. Lack of collateral and land issues

Possessing collateral is regarded as one of the main requirements by banks that must be met. It is in this context that the independent farmers complained of the following:

> In Namibia most of the instances, a bankable business plan will not always help you. You can say this is the projections of the space, it is a workable thing it will be successful but still they would expect collateral (P1, 93:93[4])*(sic)*

> I don't know who brought this requirements of even when people want to buy farms, you can buy a farm with Agribank you must at least have hundred and fifty cattle that was the requirement then I don't know if they have changed it now and I mean in communal areas most of us with historical reasons come from communal areas, where are you going to keep running fifty heads of cattle in a communal area? It's an impossibility you know so the requirement, the loan requirements are too stiff, they are impractical and they are not workable. (P4, 129:129)

For farmers with Agribank loans, the untitled land provided by the government to small-scale farmers leaves farmers with uncertainties not only about how long they will continue with their businesses but also about whether they can continue to grow and become medium-scale farmers.

> The land belongs to the government and not to us and because of this you can find me here today but tomorrow I might not be here. A government official can always come and say I am not producing and that I should go then they can replace me with someone else while they are just seating in government offices. (P12, 92:92)

> I was very much impressed to get a loan because it was not easy for me to get it but now after five years I am going to graduate to be a medium farmer and I have to have my own collateral and the money which they are even talking for me to get a loan they are asking lots of money. They are saying at least I must have four hundred thousand on the account and it is not easy to have four hundred thousand because now I am farming I am having family, I am resettling and the people which are working for me they are depending on me because they are also having

4 The numbers at the end of the quotes represent the primary documents numbers and paragraph numbers. For example P1, 93:93 mean the quote is from primary document 1, starting and ending in paragraph 93.

5. The numbers at the end of the quotes represent the primary documents numbers and paragraph numbers. For example P1, 93:93 mean the quote is from primary document 1, starting and ending in paragraph 93.

families and whatever, now it is difficult for us farmers like us who are going to graduate to go for the medium farmer because their requirements which they are asking is too much which we cannot afford. (P9, 110:110)

5.4 Bank rules and regulations

The rules of the bank are found to be discouraging some of the farmers from asking for a loan for agricultural purposes because of the bank's terms and conditions and the repayment terms.

Agribank put up a rule that no second bond is to be granted until the loan is paid back and information is not very clear why I could not get a second bond. That would discourage people to take risks. Also more money is paid back at the end of the day than what was given to me in the first place and the system could not trace why I paid more money (P2, 92:94).

Production loans repayment term must be prolonged to 4-5 years because 2 years is difficult especially for first time farmers. During the first two years one is still thinking of alternative options for business (P2, 104:104).

Regulations regarding the need for Agribank to have information about the borrower before any loan is granted cause frustration among borrowers because they feel that the process takes too long and that they do not have any financing options apart from Agribank.

The problem that I experienced was, the long time it took for the bank and the training institution to approve my qualification because nothing happens before the two institutions come to an agreement. The government should inform the bank that we have trained this person and he has passed his training by showing the qualifications, on the other hand the bank says no we don't know the person and we are afraid of losing our money. Agribank usually needs assurance from the training institution whether we will be able to repay their money as they do not know our capability of repaying the money. The training institution usually tells the bank we have been with the person for certain number of years, his performance is good, he has good knowledge in farming and we believe that he will be able to repay the bank. That's where the problem is most of time. It takes long for the training institution and the bank to come to an agreement on our ability to pay back the money but money can only come from Agribank (P16, 101:101).

5.5 Poor understanding among loan officers

In addition to the above, the absence of loan officers in the field has led farmers to believe that the former do not understand the issues that farmers face.

They don't understand our situation as us farmers who are down here because for them they are just in the office. They don't understand the situation which is on the ground in the farm. When you tell them this you know if you are in the office you don't, you are not used even maybe even from their childhood you are not farming that's the problem which we are facing even in our ministry. Most of the workers they don't know what is farming, what are the challenges

of farming so they are just there in the office when you complain, they say you complain too much but it is us suffering (P7, 168:168).

Another participant noted the following:

There should be someone from Agribank who knows what agriculture is because being in agriculture is a tough business there is a lot of challenges and unexpected losses. If Agribank has extension officers closer to the farmers who can come and assess that this farmer made this huge loss, what special treatment or discount should we give him. An unexpected loss is our biggest problem when it comes to our ability to pay back the loan. For instance if you look there, I only have two rows of corns left the rest are destroyed because there is a lack of water but having water here is not up to me but up to the government but I am expected to pay back every cent everything though I have not produced enough. These type of things need to be looked at and agricultural officers should be brought closer to the people. After each and every month he or she can come and look at how we have worked and assess the situation rather than just sitting in the office waiting for us to pay back the money (P16, 109:109).

5.6 Insufficient capital

Apart from poor understanding among loan officers, farmers are of the opinion that the amount of capital provided from Agribank in the form of a loan is too small and unable to cover the cost of inputs and ensure timely production.

The requirements are fine its just that the loan amount itself is not enough because for anyone to put up collateral at the bank they usually put up a collateral equal to the value of the amount of money they are requesting so when the government decided to put a collateral, we don't get enough money because the value of the collateral is small (P11, 104:104).

Financial constraints will not end because as we speak we are supposed to plant but like I said the amount of money that we receive as a loan is small. We were given the loan four years ago when we started but if a bag of maize costed twenty dollars then it doesn't cost the same amount now. Like this year we exceeded before we could not even reach the due date of the loan. We cannot even buy input because the loan is finished in just one season when it was meant for two seasons. When we tell the government to extend our collateral to Agribank so that Agribank can increase our loan, they don't want (P11:160:160).

5.7 Bank paperwork and bureaucracy

The time that it takes for lenders to respond to borrowers is another issue that discourages farmers from asking for financial assistance. It leads to farmers giving up or delaying production. Participants noted the following:

I did not get any response and whenever I went to ask there was no response so I just gave up (P8, 68:68).

Agribank takes time. If ever you do not have savings of your own you will find yourself just

waiting for Agribank because Agribank takes forever for what reason I don't know. Maybe it's because all the farmers in Namibia depend on Agribank or they are waiting for people to pay back their money. I don't know but Agribank really takes long to respond or give assistance way later than they had promised you at first. Sometimes the good season to plant just pass you by doing nothing because you do not have money just waiting for Agribank although you had repaid your money on time (P13, 99:99).

It is too tedious. I mean you gotta know how tall your mother was, what size of shoes she is wearing, I hate those things. I think filling in forms is one thing I hate with a passion you know in the end it is as if you have undressed yourself and in the end you are told that no your shape is not good enough to get the loan. I mean that's how I feel about applying for loans though we can't do without but that's my personal feeling. It's an impossibility you know so the requirements, the loan requirements are too stiff, they are impractical and they are not workable (P4, 98:129).

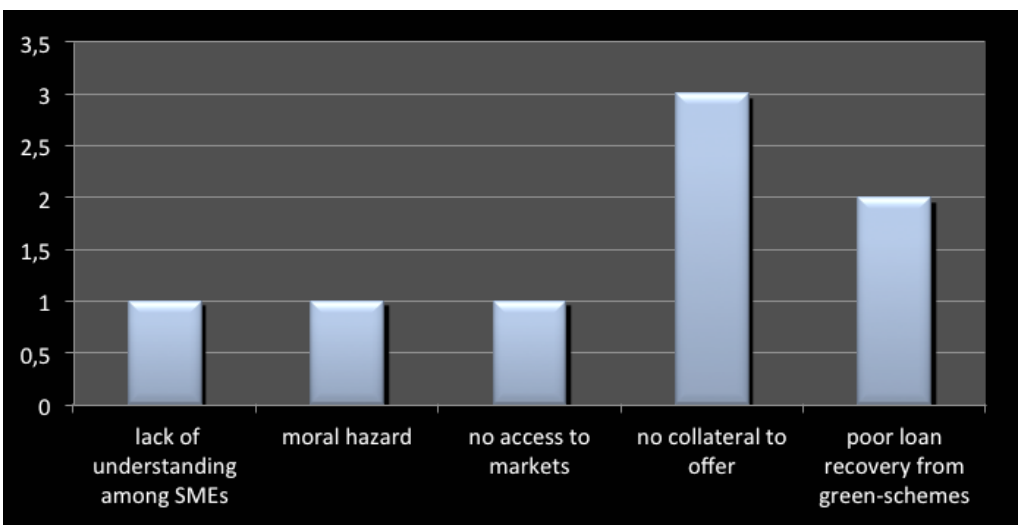
These issues demonstrate the bureaucratic process that farmers have to go through before gaining access to finance.

5.8 Financing constraints – supply side

Supply-side constraints in this paper refer to difficulties experienced by lenders, namely Agribank, in providing finance to borrowers, namely small- and medium-scale farmers.

The issue of lack of collateral makes up the major constraint among the interviews conducted at Agribank see Figure 5.

Figure 5: Supply-Side Financing Constraints



Source: authors' data, fieldwork, 2014

5.9 Lack of collateral

The types of properties that are needed by the bank to serve as collateral or security are not the ones owned by many farmers who need loans. The following quotes illustrate this fact:

As people don't have collateral which is part of the requirements that we need that becomes a bit difficult for us to grant loans. We have got a branch in Katima its very, it's not performing very well in a sense that you only have a handful of teachers, handful of nurses and a handful of policemen that can own a property in town because most of them might be staying in villages which of they can't use that property as collateral so to grant loans becomes a bit difficult in that area but it's very, it's one of the very fertile areas in the country but it needs a boost in terms of agricultural sector (P17, 82:82).

5.10. Moral hazard

Lenders are reluctant to provide finance because loans are used for purposes other than agriculture and farmers do not understand the implications of asking for a loan.

We have got the livestock loan product which I feel is being misused, is being misused by the public because the funds are never used for the intended purpose (P17, 100:100).

5.11 Poor recovery of loans

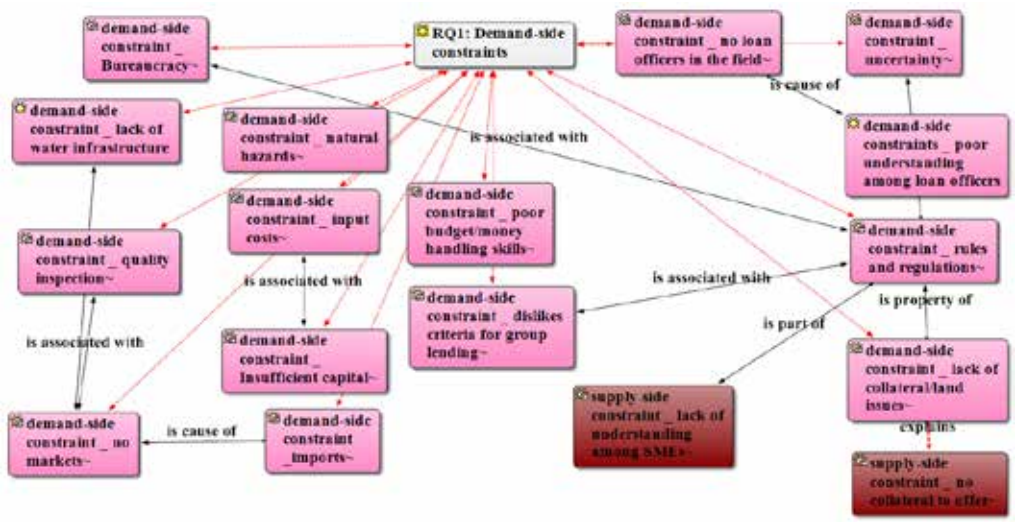
In addition to moral hazard, when Agribank decides to grant loans, it runs the risk of loan default among borrowers. This is because the government provides collateral on their behalf and farmers feel that if they default on their loans, they have nothing to lose.

For those who are having security they really try their effort to repay because they know that there is something at stake. If they don't pay, the bank might realise that security and they will lose out but for those who are not providing the own security they are bit reluctant to pay, they know that they don't have anything to lose (P18, 53:53).

6. Discussion and summary

The aim of the study was to identify and explain the financing constraints for agricultural SMEs. The results in this paper have confirmed that (as illustrated in figures 6 and 7) many of the constraints presented in the results section occur as a result of other constraints. Finance is indeed a binding constraint.

FIGURE 6: NETWORK VIEW OF THE DEMAND CONSTRAINTS



Source: authors' construct from own data

FIGURE 7: NETWORK VIEW OF THE SUPPLY CONSTRAINTS

Source: authors' construct from own data

Finance is a binding constraint because many of the bank's rules and regulations have an adverse effect on farmers' ability to gain access to credit because of lack of collateral, bureaucratic issues, lending criteria used and short timeframe for land lease, thus affecting production. This essay largely confirms the research discussed in the literature showing market imperfections to include lack of information (Bartlett & Bukvič, 2001), bank paperwork and bureaucracy (Beck, 2013), lack of collateral (Foltz, 2004) and moral hazard problems (Holmstrom, 1979). The deliberately extended quotations from interviews in the results section provide an indication of the realities/constraints of farming. Lack of collateral is identified as the biggest constraint among independent farmers, but this is not surprising because government only provides collateral for small-scale farmers in Green Scheme projects. However, this still creates some uncertainty among the farmers who receive collateral from Agribank because of a lack of security of tenure: "The land belongs to the government and not to us and because of this you can find me here today but tomorrow I might not be here." What is surprising is that farmers in Green Scheme projects but without Agribank loans own medium-scale farms (mainly from the Hardap Region) compared to small-scale farms owned by Agribank loan holders, which could be an indication of market inefficiencies.

There are several issues that may need special attention on the supply side. These are the fact that there are some independent farmers who have already commenced with their businesses and may not really need to form part of the Green Scheme projects in order to obtain finance from a bank. Such farmers have already shown the capability to produce, and thus other factors could be considered to serve as collateral apart from land. Not all farmers outside Green Scheme projects are the same; therefore, the merit of each case should be considered. Taking into account the fact that medium-scale farmers own bigger plots than small-scale farmers, Carter (1988) has noted that banks discriminate against small-scale farmers when farm size is used as an indicator of individual characteristics. Although credit is a determining factor in profits and investment, market failures such as labour, land and transportation issues overwhelm the effect of credit (Foltz, 2004).

Poor timely response to farmers has been shown to have an undesirable effect on enhancing production, therefore causing low profits. It is in this context that the World Bank argues that "Small and Medium farmers not only need access to finance for investment, they also need it in a timely fashion to take advantage of market and investment opportunities" (World Bank, 2008a:18).

Lack of water also prevents farmers from gaining access to markets because, for example, with no access to water, efficient production becomes a difficult task. This affects one's ability to pay back a loan or discourages one from looking for a loan, thus resulting in accumulation of loan defaults. The argument by Agbozo and Yeboah (2012) that market imperfections result in misallocation of capital, lower productivity and poverty traps has proven to be true in this case, especially when it comes to poverty traps. Safeguarding basic needs such as water is absolutely essential for poverty reduction.

If the aim of the Green Scheme of increasing food production through irrigation production is to remain, there are important aspects such as imports that should be taken into account in order to create markets. Furthermore, the absence of loan officers in the field as demand-side constraints came across as an issue of ignorance, for example, "They don't understand our situation as us farmers who are down here because for them they are just in the office", while that of loan default as a supply-side constraint among Agribank loan holders came across as an issue of attitude, for example, "For those who are not providing their own security they are bit reluctant to pay, they know that they don't have anything to lose". The results of the study are extremely important for the long-term survival of not only the Green Scheme projects but also the prosperity of independent farmers in their businesses, assuming that the constraints identified in this paper are addressed.

Farming is naturally an activity extremely dependent on the climate and vulnerable to the pest challenges peculiar to a particular year, and as a result, farmers face the difficulty of actually developing their farms from small- to medium-scale businesses, as evidenced in this paper. "It is difficult for farmers like us who are going to graduate to go to the medium farmer." In addition, rural credit is complicated by the seasonal nature of agricultural production, weather- and price-related risks, and the dispersed nature of farming, and this makes farming a unique activity. With this view, it is critical for formal financial institutions to increase their understanding of small-scale agriculture (De Klerk et al., 2013). A respondent said, for example, "They don't understand the situation which is on the ground in the farm." Namibia's NDP4 documents (as part of Vision 2030) talk about continued financial and technical support between 2012 and 2017 to those involved in agricultural production activities (NPC, 2013). This can only be achieved if the problems that farmers face are dealt with and if farmers abide by the rules. Of course, financial constraints cannot all be eliminated at once, but coordination, realistic rules and regulations,

collaboration, innovative approaches and acting in an organised manner are a way to start and are advisable to both the demand and the supply side. The findings of this study were based on a small sample and therefore may not be generalisable. Nevertheless, within the context of qualitative studies, the findings point to the need to take the problems experienced by small- and medium-scale businesses, including farmers, in rural Namibia more seriously.

Thus, without going against the idea of promoting smallholder farming, Collier and Dercon (2014) are indeed correct to argue that fixing market imperfections such as timely response, agricultural infrastructure, access to markets and access to land that can be used as collateral, among other constraints identified in this paper, may be the best solution. The paper shows that market imperfections are more systemic than acknowledged in mainstream economic theorising. From a policy perspective, this finding suggests that SMEs require financial state support. Precisely how to do so, especially how to link this support with social perfection, requires more research.

Biographical Notes

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References

Abor, J. Y., Alagidede, P., Ocran, M. K., and Adjasi, C. K. D. (2014). 'Developments in the financial services sector in Africa', *Review of Development Finance*, vol. 4, no.2, pp.63–65.

Adongo, J. and Deen-Swarray, M. (2006). 'Poverty Alleviation in Rural Namibia through Improved Access to Financial Services', Windhoek. Available at: www.nepru.org.na.

Agbozo, E. and Yeboah E.O. (2012). 'Exploring the financial gap for small and medium-sized enterprises (SMEs) in Ghana: a case study of Ghana', School of Management, Blekinge Institute of Technology.

Aleem, I. (1990). 'Imperfect Information, Screening and the Costs of Informal Lending : A Study of a Rural Credit Market in Pakistan' *The World Bank Economic Review*, vol. 4, no.3, pp.329–349.

Amiss, B.Y.N., (2012). 'Financing of Small and Medium Enterprises (SME's) in Namibia through an investigation of the existence of an "SME financing gap": The case of Bank Windhoek Limited' Maastricht School of Management.

Attride-Stirling, J. (2001). 'Thematic networks: an analytic tool for qualitative research', *Qualitative Research*, vol. 1, no. 3, pp.385–405.

Bartlett, W. and Bukvič V. (2001). 'Barriers to SME Growth in Slovenia', *MOST: Economic Policy in Transitional Economies,* vol. 11, no. 2, pp.177–195.

Beck, T. (2013). 'Bank financing for SMEs - Lessons from the Literature', *National Institute Economic Review,* vol. 225. no. 1. pp. 23-38

Beck, T., Demirguç-Kunt A., Laeven L. and Maksimovic V. (2006). 'The determinants of financing obstacles', Journal *of International Money and Finance,* vol. 25, no.6, pp.932–952.

Beck, T. and Demirguc-Kunt A., (2006). 'Small and medium-size enterprises: Access to finance as a growth constraint', *Journal of Banking & Finance,* vol. 30, no.11, pp.2931–2943.

Beck, T., Demirguc-Kunt A. and Maksimovic, V. (2005). Financial and Legal Constraints to Growth: Does Firm Size Matter? *The Journal of Finance*, vol. 1 no. 1, pp.137–177.

Both, N. (2015). 'The PDRM Project in the Context of the 2015 Finance for Development Debate', The United Nations Research Institute for Social Development. Retrieved from www.unrisd.org

Bowen, G.A. (2005). 'Preparing a qualitative research-based dissertation: Lessons learned', *The Qualitative Report*, vol., 10 no. 2, pp.208–222.

Burns, P. (2001). 'Entrepreneurship and Small Business', Palgrave Macmillan.

Cabannes, Y. (2012). 'Financing urban agriculture', *Environment and Urbanization,* vol. 24, no. 2, pp.665–683.

Carter, M. and Olinto P. (2003). 'Getting institutions "right" for whom? Credit constraints and the impact of property rights on the quantity and composition of investment', *American Journal of Agricultural Economics*, vol., 85, no. 1, pp.173–186.

Carter, M.R. (1988). 'Equilibrium credit rationing of small farm agriculture', Journal *of Development Economics,* vol. 28, no.1, pp.83–103.

Collier, P. and Dercon S. (2014). 'African Agriculture in 50 Years: Smallholders in a Rapidly Changing World?', World *Development,* vol. 63, pp.92–101.

Cooper, D.R. and Schindler P.S. (2011). 'Business Research Methods', 3rd ed., N. Jacobs, K. Harlow, & J. Bishop, eds., Berkshire: Mc Graw-Hill Education.

Creswell, J.W. (2013). 'Research Design: Qualitative, Quantitative, and Mixed Methods Approaches', SAGE Publications, London.

De Klerk, M., Fraser F. and Fullerton, K. (2013). 'The Status of Agricultural and Rural Finance in South Africa', Available at: www.finmark.org.za/wp.../Rep_statusAgrRurFin_SA_2013_FNL.pdf (accessed 23 March 2014).

Domeher, D. and Abdulai R. (2012). 'Land registration, credit and agricultural investment in Africa', *Agricultural Finance Review*, vol. 72, no. 1, pp.87–103.

Domeher, D., Frimpong J.M. and Appiah, T. (2014). 'Adoption of financial innovation in the Ghanaian banking industry', African *review of Economics and Finance*, vol. 6, no. 2, pp.88–114.

Elhadary, Y.A.E., Samat N. and Obeng-Odoom, F. (2013). 'Development at the Peri-Urban Area and Its Impact on Agricultural Activities: An Example from the Seberang Perai Region, Penang State, Malaysia', *Agroecology and Sustainable Food Systems*, vol. 37, no. 7, pp.834–856.

Eswaran, M. and Kotwal, A. (1986). 'Access to capital and agrarian production organisation', *The Economic Journal*, vol. 96, no. 382, pp.482–498.

Eyiah, A.K. and Cook, P. (2003). 'Financing small and medium-scale contractors in developing countries: a Ghana case study', *Construction Management and Economics*, vol. 21, pp.357–367.

Fibiger, M., Weber, A.K. and Schnabel, S. (2011). 'Good intentions aren't enough', Available at: http://www.dandc.eu/en/article/contract-farming-namibia-not-yet-successful-planned [Accessed February 9, 2015].

Friese, S. (2014). 'Qualitative data analysis with Atlas.ti', 2nd ed., K. Metzler, ed., Washington DC: SAGE.

Foltz, J.D. (2004). 'Credit market access and profitability in Tunisian agriculture', *Agricultural Economics,* vol. 30, no. 3, pp.229–240.

Gilbert, A. (2002). 'On the mystery of capital and the myths of Hernando de Soto: What difference does legal title make?', *International Development Planning Review*, vol. 24, no. 1, p.19.

Guirkinger, C. and Boucher, S.R. (2008). 'Credit constraints and productivity in Peruvian agriculture', *Agricultural Economics*, vol. 39, no. 3, pp.295–308.

Gwama, M. (2014). 'Explaining weak financial development in Africa Literature review', African *Review of Economics and Finance*, vol. 6, no. 2, pp.69–87.

Haidula, T. (2015). 'Grape farmers blame govt. for non-payment', (News | National). The Namibian, p.1. Available at: http://www.namibian.com.na/indexx.php?id=25941&page_type=story_detail [Accessed April 24, 2015].

High Level Panel of Experts (2013). 'Investing in Smallholder Agriculture for Food Security', A Report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Available at: http://www.fao.org/.

Holmstrom, B. (1979). 'Moral Hazard and Observability', *The Bell Journal of Economics*, vol. 10, no. 1, pp.74–91.

Huppi, M. and Feder, G. (1990). 'The role of groups and credit cooperatives in rural lending', *World Bank Research Observer*, vol. 5, no. 2, pp.187–204.

International Finance Corporation (2012). 'Innovative Agricultural SME Finance Models', Global Partnership for Financial Inclusion. Available at: http://www.gpfi.org/publications?&page=3 (accessed 12 March 2014)

International Finance Corporation (2011). 'Scaling Up Access to Finance for Agricultural SMEs Policy Review and Recommendations', Global Partnership for Financial Inclusion. Available at: http://www.gpfi.org/publications?&page=3 (accessed 12 March 2014)

Kirsten, J.F. and Van Zyl, J. (1998). 'Defining small-scale farmers in the South African context', Agrekon, vol. 37, no. 4, pp.560–571.

Longhurst, R. (2009). 'Interviews: In-Depth, Semi-Structured', In K. Rob and T. Nigel, eds. International Encyclopedia of Human Geography. Elsevier, pp. 580–584. Available at: http://www.sciencedirect.com/science/article/pii/B9780080449104004582.

Martini, M. (2013). 'Reducing bureaucracy and corruption affecting small and medium enterprises', U4 Expert answer, no. 380.

Mazanai, M. and Fatoki, O. (2012). 'Perceptions of start-up small and medium-sized enterprises (SMEs) on the importance of business development services providers (BPS) on improving access to finance in South Africa', *Journal of Social Sciences*, vol. 30, no. 1, pp.31–41.

Ministry of Agriculture Water and Forestry (2008). 'Green scheme policy', Windhoek. Available at: http://www.mawf.gov.na/Documents/Green%20scheme%20policy%20Booklet.pdf (accessed 2 May 2014).

Minot, N.W. (1986). 'Contract farming and its effect on small farmers in less developed countries, East Lansing', Available at: http://ideas.repec.org/p/ags/midiwp/54740.html.

Namibia Training Authority (2013). 'Sector skills plan', Windhoek. Available at: http://nta.com.na/wp-content/uploads/2013/07/sector-skills-plan-for-the-agricultural-sector-2013-2017.pdf (accessed 15 April 2014).

National Planning Commission, (2013). 'Namibia's Fourth National Development Plan NDP_4 - "Changing Gear Towards Vision 2030', Windhoek, Namibia

Ndikumana L. (2001) 'Financial Markets and Economic Development in Africa', UM Political Economy Research Institute Working Paper No. 17 (Massachusetts: University of Massachusetts)

Norton G.W., Alwang J. and Masters, W.A. (2015). 'Economics of Agricultural Development: World Food Systems and Resource', Use 3rd ed., Routledge.

Obeng, S.K. (2008). 'Rural banking in Ghana: It's impact on rural farmers' (A case study of Abokobi rural area), Available at: http://img.modernghana.com/images/content/report_content/RURAL%20BANKING%20IN%20GHANA%20ITS%20IMPACT%20ON%20RURAL%20FARMERS.pdf (accessed 31 August 2014).

Obeng-Odoom, F., (2015). 'Understanding Land Grabs in Africa: Insights from Marxist and Georgist Political Economics', *The Review of Black Political Economy'*, p.18. Available at: http://link.springer.com/10.1007/s12114-015-9209-2.

Pope, C., Ziebland, S. & Mays, N., (2014). Qualitative Research in Health Care : Analysing Qualitative Data, *British Medical Journal* 320(7227), pp.114–116.

Pricewaterhouse Coopers (Ghana) (2013). '2013 Ghana Banking Survey - Harnessing the SME potential', Available at: www.pwc.com/gh (accessed 12 May 2015).

Rehber, E. (1998). 'Private strategies, public policies & food system performance', Available at: http://purl.umn.edu/25991 (accessed 13 July 2014)

Reyes, A., Lensink, R., Kuyvenhoven, A. and Moll H. (2012). 'Impact of Access to Credit on Farm Productivity of Fruit and Vegetable Growers in Chile', Available at: http://ageconsearch.umn.edu/bitstream/126217/2/Impact of access to credit.pdf. (accessed 30 June 2014).

Sarantakos, S. (2005). 'Social Research', 3rd ed., New York: Palgrave Macmillan.

The World Bank, (2008). 'Increasing Access to Rural Finance in Bangladesh: The Forgotten Missing Middle', The World Bank.

The World Bank (2013). 'Global financial development report 2013: Rethinking the Role of the State in Finance', Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/11848/Global%20Financial%20Development%20Report%202013.pdf?sequence=1 (accessed 28 January 2015).

Tonin C., Dieci P., Ricoveri A. and Cisp S.F. (1998). 'Financial Services for Small Enterprises in Namibia', Windhoek, Namibia. Available at: http://www.fes.de/fulltext/bueros/namibia/00261005.htm (accessed 20 February 2014)

Trzeciak-Duval, A. (2003). Agriculture finance and credit infrastructure –-conditions, policies and channels. *Agric. Econ*, vol. 49, no. 3, pp.106–112.

Yin R. (2009). Case study research: Design and methods Fifth., SAGE publications. Available at: http://books.google.com/