Journal of Development and Agricultural Economics Vol. 3(2), pp 35-47, February 2011
Available online at http://www.academicjournals.org/JDAE
ISSN 2006- 9774 ©2011 Academic Journals

Full Length Research Paper

Factors that influence the success and failure of land bank supported farming small, micro and medium enterprises (SMMES) in South Africa

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Accepted 2 February, 2011

In order to establish reasons for their success and failure (defining failure as incapability to meet financial obligations, e.g. defaults), a study was undertaken to determine the problems faced by emerging or developing farmers, who are clients of, or are /funded by the Land Bank. Results from this study revealed that the farmers' perceptions do depict a lack of capacity on essential prerequisites for their businesses, especially, their perception on the value of extension support and business plans. The objective analysis of farm profitability shows that emerging farmers are unable to accurately identify factors that influence their success and failure. Extension support, sole proprietorship and business plans were found to be crucial for the farming supported farming small, micro and medium enterprises (SMMEs) to succeed and be profitable. It is therefore essential that agricultural stakeholders ensure that farming SMMEs have adequate support regarding the identified factors that may potentially influence profit and loan repayments, as these factors are crucial for the success of these enterprises.

Key words: Success, failure, farming supported farming small, micro and medium enterprises (SMMEs), profitability, emerging farmers.

INTRODUCTION

In South Africa, the Land Bank has been mandated to promote, facilitate and support agricultural development. According to Machethe (2008), "agricultural development involves, among others, farmer access to resources, entrepreneurial development, commercial production, equitable participation in agriculture, competitive and profitable production, as well as food security." The Land Bank was to contribute to this by the provision of financial services. Financial services were outreached and extended to new farmers emerging under South Africa's land reform programme. The Land Bank subsequently experienced serious problems; some of these problems led the majority of these new customers not able to service their debts (Machete, 2008). This should neither be surprising for it has been stated that small farming enterprises in South Africa have had a very high failure rate of over 80% (CDS, 2007).

This article reports on a study to examine and determine factors that promote either success or failure among emerging farmers who received Land Bank

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Finance.

Background

In a survey conducted in the United State of America, farmers were asked their opinions on factors causing bankruptcies among farmers; the answers given most often were either bad management or specific types of bad management (Baskier, 1976). Similarly, in a study conducted among commercial farmers in Western Transvaal (currently Northwest Province) after the financial crisis of the 1980's, it was found that the majority of those farmers with bad financial results had committed some serious managerial mistakes: They had over-invested in medium-term assets (e.g. machines), they had used too much credit and had spent excessively on short-term inputs relative to production (Janse and Groenewald, 1987). In another study conducted among commercial farmer clients of a commercial bank, also after the financial crisis of the 1980's, it was found that the successful farmers' record keeping, was of a high standard and they did it for budgeting purposes; their knowledge situation was satisfactory and they practised sound financial management. The opposite was true with respect to those who fared worse (de Wet et al., 1992). It must be remembered that land reform can succeed only to the extent that reform beneficiaries develop into successful commercial farmers. Groenewald (2004) argued that success in a farming enterprise depends on the goals, principles and favourable conditions that aim at a sustainable use of productive resources for each individual enterprise.

Although a number of researchers have examined a range of aspects regarding the productivity and sustainability of emerging farmers (here referred to as farming supported farming small, micro and medium enterprises, SMMEs) in South Africa, a scale of measuring successes and failures of these enterprises has not yet been developed. Lack of such measurement tools do not only make it difficult to identify the factors that contribute to their progress and lack thereof, but also makes it impossible to estimate their socio-economic contributions.

In his professorial inauguration address, Carlo, (2008) averred that it is not easy to judge success or failure of farmers due to in-season variations in climatic factors (especially rainfall precipitation and distribution); variations in yield may disguise the proper practices of good managers or cover up inferior management practices by poor managers. It is therefore not feasible to use short-term yield or profitability as indicator of managerial progressiveness. Watson (2007) contends that the ability to identify key success factors associated with the performance of SMMEs is of significant interest to public policy makers and would-be entrepreneurs. Although researchers have investigated the determinants of the success of SMMEs in various countries, accurate models for predicting venture successes or failures are not widely available (Lussier and Pfeifer, 2001). This is certainly true with respect to farming SMMEs in South Africa.

Carter and Van Auken (2006) found the following to be main factors that may lead to the success or failure of SMMEs:

1. Size of the business: Very small enterprises are more likely to have a high failure rate, while larger and faster growing enterprises are less likely to fail.
2. Availability of capital, educational level and work experience: These factors directly relate to an enterprise's likelihood of success or survival.
3. Resource availability: Enterprises with fewer resources are more likely to fail than those with more resources.
4. Internal and external conditions: Entrepreneurs attributed failure to internal factors such as lack of skills or poor strategic planning, while venture capitalists attributed failure to external factors such as market conditions.
5. Rural locations: The chances of failure for businesses located in rural areas with a narrowly focused niche strategy are high.
6. Other factors that contribute to the success or failure of business ventures are: lack of start-up capital, business growth strategy and poor formal planning.

It may therefore be important for farming SMMEs to monitor and evaluate the prominence of both financial and non financial influencing factors, in order to ensure competitiveness (Nell and Napier, 2006). To this end, the South African government has instructed institutions such as the Land Bank, National Agricultural Marketing Council (NAMC) and Departments of Agriculture and Land Affairs to assist the agricultural communities, especially the emerging farmers, to become sustainable commercial farmers (Gorhdan, 2010). The objective of this study is to evaluate the degree to which certain financial and non-financial factors influence results in terms of success or failure of farming SMMEs (emerging farmer enterprises) financed by the Land Bank.

DATA AND METHODOLOGY

Three methods were utilized in an attempt to measure the financial and non-financial factors that determine the success or failure of farming SMMEs in South Africa. Data used in the study was obtained using a structured questionnaire from a sample of 134 emerging farmers financed by the Land Bank of South Africa in 2007. The farmers were drawn from 27 Land Bank national branches distributed throughout the nine provinces of South Africa. The sample represents 10% of all Land Bank loan holders. In the study, emerging farmers were defined as those previously disadvantaged farmers who are now participating in the market and are still facing some constraints to maximise the benefits of their full participation (Makhura, 2008). Stratified randomised sampling design was used to select the farmers to be interviewed. The choice of the survey area was based on its representativeness of

commodities within a province. This was an important criterion in the light of the limited financial resources available for the study. Another criterion used was short-term, medium and long-term loans provided to the clients. To ensure repetitiveness and reliability, the structured questionnaires were validated through perusal by a panel of experts and were extensively pre-tested before administered by trained interviewers, who were closely supervised by the research committee. The success of farming SMMEs was determined by using both subjective and objective measures of farm profitability and also the ability of repay the loan. The subjective measures entailed farmers' opinions regarding profitability and the reasons thereof, while the objective measures used actual farm profits for the years 2004 to 2007 as well as the ability to repay the loan measures the defaults in repayments. The rationale for using these three methodologies were to find out whether the perception of the farmers can provide a picture of their judgement, whilst objective measures were used to find the authentic picture; repayment ability measures their financial intelligence.

Model specification

Three dependent variables were considered in the current study, that is, farmers' perception about profit (subjective profitability), the actual profit based on farmers' profit figures (objective profitability) and the farmers' loan repayment abilities. These dependent variables were binary e.g. profitable = 1 and non-profitable = 0. The independent variables were market availability, attended training, extension support, type of business and availability of a business plan. A multiple logistic regression model was used to investigate the importance of the independent variables as predictors of the dependent variables in the current study. The logistic regression model is represented as follows:

Let Y be a binary response variable where for example $Y=1$ denotes success and $Y=0$ denotes failure and also assume a set of predictor variables contained in a vector x. Then, the probability of success to be modelled is given by:

$$\pi = P[Y=1 \mid x] \quad (1)$$

Since Y is binary, modelling π is really modelling $E[Y \mid x]$, which is what is done in ordinary least square regression. If we model π as a linear function of predictor, variables, e.g.

$$\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p \quad (2)$$

then the fitted model can result in estimated probabilities which are outside of the range [0,1]. To circumvent the problem of probability outside the feasible range, the following logistic regression model is used.

$$\pi = \frac{\exp(\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p)}{1 + \exp(\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p)} \quad (3)$$

where $x_1, \ldots, x_p$ may be the original set of explanatory variables, but the predictors may include transformed and constructed variables. The odds of success are therefore given by:

$$\frac{\pi}{1-\pi} = \exp[\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p] \quad (4)$$

Equation (4) is not linear in parameters and thus using a log transformation results in the following linear predictor:

$$\log\left[\frac{\pi}{1-\pi}\right] = \beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p \quad (5)$$

$\log\left[\frac{\pi}{1-\pi}\right]$ is the log-odds of the probability of success or the logit transform. Also note that no matter what value of the linear predictor in Equation (5) is, the corresponding estimate of π will be between 0 and 1.

The unknown parameters (the regression coefficients $\beta_0, \beta_1, \ldots, \beta_p$) are estimated by maximizing the likelihood of the data,

$$\prod_{i=1}^{n} \pi_i^{y_i} [1-\pi_i]^{1-y_i} \quad (6)$$

which is just an expression for

$$P[Y_1 = y_1, \ldots y_n \mid x_1, \ldots, x_n] \quad (7)$$

Estimates of parameters of the logistic regression model in Equation (5) and their associated standard errors were obtained using the logistics procedure of SAS. Proc logistics uses the Fisher scoring iterative procedure to obtain maximum likelihood estimates of the parameters. The Wald's chi square statistic was used to test the significance of the independent variables.

RESULTS AND DISCUSSION

Here, results on the factors that determine the success and failure of farming SMMEs in South Africa will be reported.

Farmer's opinion about their profitability: Subjective profitability

According to the neoclassical economists, businesses accept risks when they buy inputs to produce an output. The final price of the output must be estimated, and the price of and payments to the inputs become contractual obligations. If the total revenues of the firm exceed the payments for the inputs, profits accrue; if revenues are less than payments, losses occur (The Economist's view, 2010). This author emphasised that economists such as J. B. Clark, Alfred Marshall, and J. A. Schumpeter viewed profit as a temporary income resulting from dynamic changes in the economy. The aforementioned economists assumed that an economy is in long-run equilibrium, with all factors receiving a return equal to their opportunity cost, and that the revenues of a typical firm are equal to its costs. A change in consumers' preferences or a change in technology will lead to profits in some industries (The Economist's view, 2010). These

Table 1. Chi-square test of significance of independent variables on subjective profitability.

Independent variable	DF	Wald Chi-square	Pr > Chi square
Market availability	1	1.5737	0.2097^{ns}
Attended training	1	0.2057	0.6501^{ns}
Extension support	1	0.2913	0.5894^{ns}
Business type	2	0.2940	0.8633^{ns}
Business plan	1	0.9832	0.3214^{ns}

R^2 = 0.0726, NS = Not significant.

Table 2. Maximum likelihood estimates of regression parameters and Chi-square test for subjective profitability.

Parameter	Level	Df	Estimate	Standard error	Wald Chi-square	Pr > Chi square
Intercept		1	0.7595	0.2046	0.0726	0.7876^{ns}
Market availability	Yes	1	0.9360	1.1742	1.5737	0.2097^{ns}
Attended training	Yes	1	0.6512	0.2954	0.2057	0.6501^{ns}
Extension support	Yes	1	0.6193	-0.3343	0.2913	0.5894^{ns}
Business type	Group	1	1.0498	0.0516	0.0024	0.9608^{ns}
Business type	Sole ownership	1	0.6448	0.3394	0.2772	0.5986^{ns}
Business plan	Yes	1	0.6438	-0.6384	0.9832	0.3214^{ns}

NS = Not significant

profits will be eliminated, however, by competitive forces as capital moves to those markets having above-normal rates of return. Thus, profit is not a return to a factor of production but a windfall associated with dynamic elements in an economy. According to The Economist (2010), F. H. Knight (1885-1972) significantly integrated and extended prior theories of profit by combining in one theory of risk factors, managerial ability, and economic change. In 'Risk, Uncertainty, and Profit,' Knight (1957) distinguished between risks that businesses take that can be insured against and risks for which no insurance is available.

In view of the aforementioned, profit or loss may be useful in determining the business' performance. In this regard, opinion of the emerging farmers in South African on their profitability was investigated. This was done with the knowledge that the majority of these farmers have poor financial intelligence and record keeping systems whilst others do not have any record systems at all. The study hypothesized that the profitability of emerging farmers' businesses depends on market availability, training, extension support, type of business and availability of a business plan. The farmers' opinions regarding factors were investigated. The results as presented in Tables 1 and 2 revealed that none of the independent variables considered in the current study was significant at the 5% level of significance. These results appear to indicate that the current data provide insufficient evidence regarding the hypothesis of the Land Bank that farmers' perceptions about business profitability depend on market availability, training, extension support, type of business and availability of business plans.

Table 3 provides the odds ratios associated with different independent variables with respect to subjective farm profitability. The odds ratios for each independent variable are discussed as follows.

Market availability

The term market availability refers to those in a potential market with enough money to buy the products (NetMBA, 2010). It may also reflect those that have supply contracts in a niche market with fewer competitors. In the context of this study, market availability implies access to formal markets, while access to informal markets only is regarded as non-availability of markets. This definition of market availability may lead to results that may not be intuitive. The odds ratio for market availability with respect to subjective farm profitability is 3.236. This odds ratio suggests that emerging farmers believe that having access to a formal market can increase their profitability by 223.6% as compared to those with access only to informal markets. This may imply that according to farmers' opinion, those farmers who have access to formal markets have a high probability of realising greater profits than those operating only in an informal market. However, it should be noted that the odds are not significantly different ($P > 0.05$) between farmers with and without access to formal markets. The results further revealed that farmers seem to understand the importance of access to formal markets in relation to their farm profitability. It may thus be deduced that their poor

Table 3. Odds ratios for influencing factors on subjective profitability.

Independent variable	Level	Point estimate	Lower 95% Wald Confidence limit	Upper 95% Wald Confidence limit
Market availability	Yes vs no	3.236	0.517	20.264
Attended training	Yes vs no	1.344	0.375	4.815
Extension support	Yes vs no	0.716	0.213	2.410
Business type	Group vs CC	1.053	0.135	8.242
Business type	Sole ownership vs group	1.404	0.397	4.969
Business plan	Yes vs no	0.528	0.150	1.865

$R^2 = 0.3361$

participation in formal markets may be the result of a lack of formal market links. Therefore, the establishment of market system linkages may be crucial. In addition, access to formal markets may influence their market intelligence and ultimately result in getting recent and accurate information for further business planning and developments. This may have a huge impact on their profitability and sustainability.

Attendance of training

Training is essential to curb poor production planning, managerial ability, coordination, technology, low level of technical knowledge and wastages (Matsuzuka, 2008). Businesses run by poorly trained personnel are not immune from unsustainable practices and often collapse without fulfilling their objectives (Business link, 2010). In view of the aforementioned, it was important in this study to determine the perception among farmers regarding the attendance of training as a way of improving farm profit. The results revealed an odds ratio of 1.344 for profitability with respect to training. This appears to indicate that the respondents were of the opinion that those farmers who attend any training have a 34.4% better chance of making profits than those who received no training. This perception may reflect some value attached to training as a source of production efficiency. The aforesaid results support the opinion of experts who regard attending training as crucial in running enterprises or production processes (Nieman et al., 2004). Oluwajoba et al. (2007) found that technological innovative capacities are positively correlated to the higher academic training in science or engineering and previous working experience (an opportunity which the majority of emerging farmers lack). In addition, De Clereq et al. (2006) found that both one's current knowledge base as well as one's exposure to knowledgeable people increases the self confidence to successfully set up a venture. It appears that the current researches confirm the importance of attending training in enhancing success. Consistent with these research findings, the results of this study show that there is a perception amongst the emerging farmers that training may improve profitability of farming SMMEs.

Extension support

According to Chaminuka et al. (2008), extension services have an important role to play in assisting farming SMMEs in acquiring information on new technology, skills, innovation and production advice. On the basis of the aforesaid importance, the emerging farmers were given an opportunity to evaluate whether in their view, farmers with access to extension services have a better chance of making more profit than those with no such access. The results revealed an odds ratio for extension support of 0.716. This result appears to indicate that in the opinion of the respondents, farmers with extension support are less likely (28.4% less) to make profits than those without such services. This indicates that emerging farmers do not place a high value on the existing extension support. It may be deduced that extension officers need to be re-trained in order to provide valuable information to the farmers so that farmers can value their contributions. According to Groenewald (2004) extension officers require training in marketing and management. On that basis, it may be necessary to amend the curricula for extension workers' qualifications to include management modules.

Business type

Currently, the Departments of Agriculture and Fisheries and Rural Development and Land Reform in South Africa encourage potential farming entrepreneurs to form groups in order to access sufficient grants from the government for farming purposes (Mmbengwa, 2009). Through this criterion, accessing such grants takes into account individual assets, sweat equity and prior farming experience, leaving the applicants with adequate assets which may be used to initiate the farming activities. It was thus crucial to empirically investigate whether the farmers themselves feel that such group farming may influence their likelihood of making profits and thus progress to

Table 4. Analysis of independent variables for objective profitability.

Independent variable	DF	Wald Chi-square	Pr > Chi square
Market availability	1	1.3099	0.2524^{ns}
Attended training	1	0.2525	0.6153^{ns}
Extension support	1	0.1136	0.7360^{ns}
Business type	2	1.6667	0.4346^{ns}
Business plan	1	0.6935	0.4050^{ns}

R^2 = 0.0995, NS = Not significant .

commercial level. In Table 3, an odds ratio of 1.053 was found. This result appears to indicate that emerging farmers believe that group farming has a slightly higher probability of making them profitable (5.3%) as compared to business types such as close corporation. It should however be noted that the differences in the opinion about profitability among the different business type were statistically not significant. An odds ratio of 1.404 was obtained with regard to sole proprietorship. This coefficient indicates that the emerging farmers perceive a sole proprietorship to have a better (40.4%) chance of making a profit and thus be sustainable than group farming. The results appear to highlight the recognition by emerging farm owners of the difficulty in managing an organization owned by many people, whose interests could be very diverse. In view of this perception, it appears that farmers have been, and still are persuaded to form or join farming groups against their will. Given their choice, these farmers appear to prefer farming as individuals. It may also be concluded that the decision to form a group results from asset poverty, a condition that disadvantages them from accessing sufficient grants or other finance. On the basis of this observation, it recommended that South African government should revise the formula for allocating grants in favour of individuals or families.

Business plan

Business planning is one of the processes regarded as predictor of business success (Intuit Small Business, 2010). Scholars of entrepreneurship and small business management hail business plans as the source of success (Nieuwenhuizen et al., 2003), because it seeks to clarify crucial issues such as the ones mentioned below prior to the implementation of the business idea:

1. The vision and mission of the enterprise.
2. Membership of the enterprise.
3. Objectives of the enterprise.
4. Market availability and access.
5. Financial projections.
6. Possible financial sources.
7. How the enterprise intends to redeem the financing.
8. Ownership.

It was thus crucial to investigate whether emerging farmers perceive a business plan as a tool that could increase their profit. The results revealed that the odds ratio for farmers having a business plan versus those without is 0.528. This result appears to point out that emerging farmers feel that those with business plans have a 47.2% smaller chance of making profits compared to those without. Clearly this appears to indicate that many emerging farmers do not perceive any value in their business plans. This observation confirms the findings that emerging farmers do not use their business plans to run their enterprises (CDS, 2007). For emerging farmers to comprehend and use business plans, it will be necessary to continuously mentor them on how to use their business plans effectively and to their relative advantages.

Actual profit of emerging farmers-objective profitability

South African's emerging farmers are known for their poor record keeping practices (Groenewald, 2004). Their attitude towards record keeping has led many researchers to categorize these farmers as illiterate or semi-literate due to a lack of professional business practises. These challenges may impact negatively on the assessment of business viability because it may be quite difficult if not impossible to objectively determine the actual profit of the enterprises. Despite knowledge of such limitations, the success of emerging farmers were measured in terms of actual profit recorded by emerging farmers financed by the Land Bank of South Africa. The profit used comes from the data in a four year cycle, 2004 to 2007.

The analysis of independent variables for actual farm profit is shown in Table 4.The study found that none of the independent variables were significant at the 5% level of significance. In light of this non-significance, it can be inferred that the independent variables do not have a significant influence on the farm profit. The R^2 value of 0.1860 indicates that the variables can only explain 19% of the variability.

The maximum likelihood estimates for the goodness off it and significance level are presented in Table 5. None of the parameter estimates were significant (P > 0.05).

Table 5. Maximum likelihood estimates parameters of objective profitability.

Parameter	Level	Df	Estimate	Standard error	Wald Chi-square	Pr > Chi square
Intercept		1	- 0.4930	1.1961	0.1699	0.6802^{ns}
Market availability	Yes	1	-1.2561	1.0975	1.3099	0.2524^{ns}
Attended training	Yes	1	-0.5285	1.0517	0.2525	0.6153^{ns}
Extension support	Yes	1	0.3080	0.9137	0.1136	0.7360^{ns}
Business type	Group	1	-0.2401	1.6366	0.0215	0.8833^{ns}
Business type	Sole ownership	1	1.0902	0.9153	1.4180	0.2336^{ns}
Business plan	Yes	1	-0.6384	0.6438	0.9832	0.3214^{ns}

NS = Not significant.

Table 6. Odds ratio estimates for objective profitability.

Independent variable	Level	Point estimate	Lower 95% wald Confidence limit	Upper 95% wald Confidence limit
Market availability	Yes vs no	0.285	0.033	2.447
Attended training	Yes vs no	0.590	0.075	4.631
Extension support	Yes vs no	1.361	0.227	8.157
Business type	Group vs CC	1.787	0.032	19.445
Business type ownership	Sole vs CC	2.975	0.495	17.888
Business plan	Yes vs no	2.324	0.319	16.916

Table 6 provides the odds ratio for the independent variables relative to the actual profit made by farmers.

Market availability

The availability of a market for any commodity is crucial for the success any business regardless of its type and size. Market availability is one of the key determinants of the cash inflow (Nell and Napier, 2005). According to Groenewald, (2004) emerging farmers in South Africa require reliable markets to succeed. The study investigated the influence of market availability on the success of Land Bank supported farming SMMEs, with the objective of predicting its influence on the success of farming SMMEs. The results revealed a relative odds ratio of 0.285. This result indicates that emerging farmers with access to formal markets have a 71.5% smaller chance of making profits than those with access only to informal markets. This appears to indicate that the existing formal market conditions may be unfavourable for emerging farmers. This may be a result of a host of different factors, amongst others transactional costs, poor road infrastructure and poor transport facilities. These results may be a confirmation of the need for separate formal market arrangements aimed specially to serve the needs of new emerging farmers, who have had little, and often no exposure to regular marketing of farm products. There is a vast difference between the results obtained by analysing farmer's perceptions compared to those obtained using actual profit data. It appears that the farmers lack capacity to actually evaluate the influence of market availability or access on profit potential. Therefore, it is imperative that farmers be trained on marketing.

Attendance of training

Skills development through training has been reported as one of the most important factors in building the capacity to succeed (Nzimande, 2010). South Africa has institutionalized skills development for workers by enacting the Skills Development Act, No.97 of 1998. The Act provides a framework for developing and improving the skills for the South African (Moraka and Mapesela, 2009). According to Groenewald (2004), skills development and training play a vital role in influencing the success of the emerging farmers. In this study, an effort was made to determine the influence of training in the success of farming SMMEs supported by Land Bank. The relative odds ratio obtained is 0.590, indicating that farmers who have attended training have a 41% smaller chance of making profits than those who have not undergone training, a result which is in disagreement with those of several researchers who found training to be a key determinant of profitability (Bryan, 2006; Nieman et al. 2004; CDS, 2007) and which agrees with the relative

odds ratio coefficient obtained through the perception of the farmers, which found that emerging farmers think that training do not play a significant role in ensuring profitability of the farming SMMEs. It is clear that both the objective and subjective assessments are in contrast to the generally accepted opnion in business literature regarding the importance of training for the success of SMMEs, including farming SMMEs. Emerging farmers clearly do not perceive that the training offered them by service providers have the desired quality and/or relevance and thereby add some value to the profitability of their enterprises. It appears to be high time to seriously review the existing situation regarding training of emerging farmers in South Africa; the training received appears to fail in positively promoting the objectives of these farmers. It must be borne in mind that the sample was drawn from all nine provinces. This indicates that this is not a local or regional phenomenon. It is rather a national problem.

Extension support

In South Africa, farmers regardless of their state of development have access to both public and private extension support. The latter requires that farmers access their services at their cost or as part of marketing contracts; the former, on the other hand is accessible for free. In the light of the socio-economic status of the emerging farmers in South Africa, private extension services are perceived to be extension services for established commercial farming enterprises. This has made the private extension service unpopular in the developing farming communities. This study seeks to investigate the importance of extension services in general. The results revealed that the relative odds ratio to be 1.361. This result indicates that farmers with access to extension support have a 36.1% better chance of making a profit than those without. The comparison between the results obtained through perception and that obtained through actual profit data shows a significant difference. The objective analysis suggests that for emerging farmers to make profit, extension support is critical. Therefore, it can be deduced that those emerging farmers whose businesses are collapsing, lack amongst Others, extension support. This result may suggest that it would be worthwhile for public, private and parastatal institutions to invest more capital on extension training and development in order to improve the profitability of these farmers.

Business type

The impact of the type of the business on the success of the farming enterprises in South Africa has received very little research attention. According to the South African government, group farming represents an African model of collective farming, with a potential for success among the historically disadvantaged emerging farmers. In this study, the relative odds ratio obtained is 0.787, indicating that farmers who are operating as groups have a 21.3% smaller chance of making profit than those who are operating as individuals. This finding is complemented by the result obtained from the sole proprietor variable, which indicates that the sole proprietorship variable has a 2.975 odds ratio coefficient. This odds ratio coefficient indicates that a sole proprietorship has a 197.5% better chance of making profits, compared to other legal entities. It can thus be deduced that organisational arrangement has a significant influence on profitability. It appears that sole proprietorship is the most profitable organisational arrangement for emerging farmers compared to other types of entities under consideration. This may be so because this arrangement is less complicated than other entities. Its simplicity may be seen in conjunction with the low level of literacy amongst the emerging farmers. In a single proprietorship arrangement, decision-making tends to be simpler and more timeously; it needs a very well organized and managed group entity to be able to make the best decisions timeously and have them carried out well; a company-type organisation is normally required to acquire this. Overall, these results are in agreement with the subjective opinion of the farmers on the fact that sole proprietors have better chances of making profits than those involved in collective farming. Thus, both the subjective and objective tools point to the same conclusion. Group farming is clearly less profitable than individual farming. This provides one important reason why the majority of the land reform enterprises have collapsed or are collapsing.

Business plan

Business plan show the direction and the resources available that may be used to stimulate the business operations. It is also a tool that may be used to monitor and evaluate the business success against the objectives set during the planning phase of the enterprise. The results revealed that relative odds ratio to be 2.324. This result indicates that farmers with business plans have a 132.4% greater chance of making profit than those without. This result is in sharp contrast with the perception of the same sample of emerging farmers, which indicates that those with business plans have a 47.2% smaller chance of being profitable than those with business plans. It appears that this indicates that emerging farmers lack the capacity to see the value of business plans in their enterprises. This may be because during the drafting of the business plans, emerging farmers might have not been fully involved or lacked capacity to comprehend the technical aspects to the plan. Another explanation for this result might be that some of

Table 7. Analysis of independent variables for loan repayment.

Independent variable	DF	Wald Chi-square	Pr > Chi square
Market availability	1	0.0364**	0.8487ns
Attended training	1	0.4657ns	0.4950ns
Extension support	1	0.0482**	0.8263 ns
Business type	2	1.4689ns	0.4798 ns
Business plan	1	1.1032ns	0.4050 ns

R^2 = 0.0442, NS = Not significant.

Table 8. Maximum likelihood estimates of regression coefficients on the loan repayment-client status.

Parameter	Level	Df	Estimate	Standard error	Wald Chi-Square	Pr > ChI square
Intercept		1	0.5538	0.7610	0.05296**	0.4668ns
Market availability	Yes	1	-0.1613	0.8454	0.0364**	0.8487ns
Attended training	Yes	1	-0.4435	0.6499	0.4657	0.4950ns
Extension support	Yes	1	-0.1377	0.6279	0.0482**	0.8263ns
Business type	Group	1	-1.2725	1.0688	1.4177	0.2338ns
Business type	Sole ownership	1	-0.1254	0.6529	0.0369**	0.8477ns
Business plan	Yes	1	0.6546	0.6232	1.1033	0.2936ns

ns = Not significant

Table 9. Odds ratio estimates for loan repayment history.

Independent variable	Level	Point estimate	Lower 95% wald Confidence limit	Upper 95% wald Confidence limit
Market availability	Yes vs no	0.851	0.162	4.462
Attended training	Yes vs no	0.642	0.180	2.294
Extension support	Yes vs no	0.871	0.255	2.981
Business type	Group vs CC	0.280	0.034	2.276
Business type	Sole ownership Vs CC	0.882	0.245	3.171
Business plan	Yes vs no	1.924	0.567	6.528

these business plans were written by consultants in complicated business language rather than the language understood by farmers. All these explanations point out that emerging farmers lack the capacity to write their own business plans and therefore any stakeholder that attempts to assist in this regard must workshop the beneficiaries before and after his (or her) withdrawal.

Success based on loan repayment history

Loan repayment history is mainly used by financial institutions to assess the risk category of both individuals and enterprises that have qualified for credit. Repayment was also used in this study as a measure of success of the farming enterprise. Those enterprises that are unable or not willing to meet their loan repayment obligations are thus classified as unsustainable; conversely, those who meet their loan obligation are sustainable. The farmers' status was defined as follows: 1 represents farmers with bad debt payment, while 2 indicate farmers who are up to date with their payments. The results of the analysis of the performance of emerging farmers in paying their loan are shown in Table 7. The current study found that the independent variables are not significant at $P \leq 0.05$. The R^2 value of 0.0442 indicates that this result can only explain 4.42% of the variability.

The maximum likelihood estimates regression coefficients are presented in Table 8. The Wald test statistic indicates that none of the independent variables were significant ($P > 0.05$). In addition, Table 9 presents the odds ratio estimates for the loan repayment history of designated enterprises.

Market availability

The relative odds ratio obtained is 0.851. This odds ratio

coefficient indicates that farmers with market availability have a 14.9% smaller chance of repaying their loans than those without markets. This implies that those without formal markets have a better loan repayment history than those with formal markets access. This picture may reflect that emerging farmers with market availability have more market higher transaction costs to the extent that they are unable to make profits even though they have market access.

It may also mean that emerging farmers are producing inferior quality products that do not attract good prices in the market system. Lastly, this result might reflect a lack of knowledge by farmers in relation to marketing fundamentals. Therefore, it is important that emerging Farmers need to be trained in marketing.

Attendance of training

The relative odds ratio coefficient found is 0.642. This means that farmers who had attended training have a 35.8% smaller chance of having good loan repayment records than those who attended training. This result indicates that either the training received by these farmers is not sufficient, and/or the quality and content of the training are questionable. A post training impact analysis should be done to ensure that the training delivered to these farmers is appropriate and has the required impact. According to this result, emerging farmers require basic financial management training in order to ensure that their debt repayment is well managed.

In addition, these farmers should also be trained on aspects of credit management. Appropriate training for emerging farmers is needed in order to help them produce, market, and manage their finances properly. Therefore, it is important that training of these groups of farmers be designed in order to meet their needs and aspirations. Training needs assessment should be conducted prior to the commencement of any training, and this assessment should be done not only by extension officers but also by specialists experienced in the field of agribusiness. Training centres across the country, in districts, local municipalities and national level would be another step towards resolving these capacity problems.

Extension support

The relative odds ratio coefficient for farmers who have extension support in relation to loan payment history is 0.871.This suggests that farmers who have access to extension support have a 12.9% smaller chance of repaying their debts than those without extension support. This appears to indicate that extension support programs do not have the desired impact. According to this result, the current quality of extension services delivered to emerging farmers is less likely to capacitate emerging farmers in managing their debts appropriately. This suggests that government and other stakeholders should invest more in ensuring that quality extension support is rendered to these farmers. The lack of quality extension services needs further investigation; various factors may be involved such as the number of extension officers produced by tertiary institutions per year and the curricula followed by these institutions. Virtually all bodies engaged in agricultural extension in South Africa appear to have problems with staffing in that the number of well-trained agricultural extension officers is obviously far too small relative to the need.

The tertiary institutions in South Africa and the institutions, public and private, providing financial assistance to students do not heed the need to train more extension officers. It may also mean that the young people do not see agricultural extension as a good career path. It will not only be fruitful for stakeholders in agriculture to provide incentive packages to attract the youth in extension, but it would also be to the advantage of the farming SMMEs, the entire agribusiness environment and rural society as a whole. The drive to rural development through agribusiness seems to be heavily reliant on extension support and a comprehensive plan to motivate and develop this area of speciality will be advantageous for the welfare of the emerging farmers, and their communities.

Business type

The relative odds ratio coefficient for group enterprises is 0.280. This coefficient indicates that farmers engaged in group farming have a 72% smaller chance of repaying their loans than others. On the other hand, it is found that farmers with sole proprietor enterprises have a relative odds ratio coefficient of 0.882, which therefore indicates that these farmers have 11.8% smaller chance of repaying the loan.

These results indicate unwillingness and/or an inability to redeem loans, irrespective of the business type. Whilst those who do not realise profits can obviously not fulfil their debt repayment obligations, those who do realise profits can do so. One can only surmise that some factors have engendered a sense of unwillingness to fulfil financial obligations, and instead to rely on institutions such as the Land Bank or other financial institutions to support them without them feeling obliged to redeem debts incurred.

The ownership of the Land Bank as a parastatal firm as well as problems within the Land Bank itself may have played a role in this regard. It is common knowledge that for some years, the Land Bank suffered under poor management, and was itself financially in a downward spiral until in 2008, when control of the Land Bank was transferred from the National Department of Agriculture, which exercised control since its foundation in the early

20th century - to the National Treasury. A large bail-out was given by the government, new directors appointed, changes brought in management, and a turn-around strategy followed – one which has as seen in the 2009/10 Annual Report (Land Bank, 2010) been successful, although large challenges remain. Debt recovery procedures were not up to scratch, and lacked discipline. This certainly added to lethargy in debt repayments, a matter which is now receiving attention. It must in this sense be noticed that sole proprietorships did show a bigger willingness and ability to fulfil their obligations than other business types.

Business plan

The relative odds ratio coefficient for farmers who have business plans in relation to their loan repayment is 1.924. This indicates that those with business plans have a 92.4% greater chance of repaying their loans than those without. This clearly reaffirms the importance of the business plans. Therefore, it is important that emerging farmers must be assisted in order to have bankable business plans. Currently, most emerging farmers do not have the capacity to compile their own business plans, and hence government has been using consultants to compile these businesses plans for them.

CONCLUSION AND RECOMMENDATIONS

The use of objective, subjective measures and ability to repay the loan in determining success has provided some explanations of reasons associated with the failure and success of farming SMMEs. The study has revealed that emerging farmers have the perception that access to formal markets can lead to their business success. However, the objective and repayment assessments found that formal markets do not positively influence the success of these farmers. This certainly indicates serious weaknesses in the South African agricultural marketing setup, at least as far as the interest of emerging farmers are concerned.

It also indicates a need for research on factors determining emerging farmers' accessibility to formal markets. Some studies have for example shown that contracting for the production of special, or 'niche' products, can bring success in terms of the SMMEs production, marketing and the level as well as the consistency of the net revenues earned. In Africa, sucharrangements have typically consisted of contracts with input suppliers or buyers of the products (Delgado, 1990; Grosh, 1994; Little and Watts, 1994; Jaffe and Morton, 1995). Such arrangements have to be carefully planned and preferably monitored, because opportunistic behaviour among farmers and/or monopoloistic or monopsonistic behaviour on the part of the larger contracting parties can jeopardise success. Analysts such as Kirsten and Sartorius (2002) have drawn up some guidelines for success. South Africa has also experience some successes in contracting for markets, e.g. the Embo community in KwazuluNatal successfully produces organic products under contract (Hendriks and Lyne, 2009) whilst small farmers at Taung in Northwest Province do likewise with brewers barley (Klopper, 2009). However, contracting cannot solve all these problems. While cooperatives have had a rather chequered record in terms of service to smallholder farmers in Africa, including South Africa, the cooperative form of business has been very successful in many other parts of the world.

Cooperatives can, if properly managed and administered, provide organised (group) marketing to smallholders such as the SMMEs dealt with in this article. To succeed, new cooperative developments will have to avoid the mistakes of the past as analysed by various analysts such as Ntangsi (1992), Mittendorf (1993) and Machethe (!990).Both subjective and objective assess-ments are in agreement that training has a positive impact on the success of the farming SMMEs, whilst the results obtained through the use repayment assessment has found training to have less influence on success. There is however room for more purpose directed training; agricultural and educational institutions should take notice thereof. The results for extension support reveal that only the objective assessment shows that this support is crucial, in contrast with the two assessment methods.

This reflects serious problems with agricultural extension to emerging producers in its current form. This is a real problem, especially as it has been shown by various authors that in some cases, problems as per-ceived by farmers are in variance with the real problem. For example stock farmers perceiving their problem to be a lack of good breeding stock, while the real problem is lack of grazing management (Terblanche, 2008). Extension support in any area can only be sufficient if it is underlain by applied research on local situations, thus leading to needs-based extension. This field is of great importance for the future welfare of emerging farmers; it will aid in building sustainable, prosperous SMMEs. According to the subjective profitability results, group farming is perceived by emerging farmers as a somewhat more successful type of enterprise.

This differed materially from results obtained with .the objective and repayment of loan assessments. Group farming has not succeeded to bring success in the great majority of cases and as already argued earlier in the text, there are good reasons for this failure, as compared with particularly sole proprietorship. This should be kept in mind in future projects. The objective and repayment of loan assess-ments suggest that business plans are crucial for the success of the farming SMMEs, whilst emerging farmers perceive that the business plan play no

role in the success of these enterprises. Many operators in the farming SMME sector seem to lack confidence in the consultants who have drawn up many of their business plans. This brings to the fore a question concerning consultancy roles. A position in which consultants draw up business plans in virtual isolation of some customers will inevitably lead to some unrealistic (often overoptimistic) projections and plans which may not be understood or realised.

A system is needed to make such consultants accountable. On the whole, the study has found quite different mixtures of results from the three assessments made, leaving it difficult to identify which factor is the most crucial for the success of the farming SMMEs. On the basis that the perception of the emerging farmers may be dependent on their knowledge, expertise and experience, it may be vital to attach less value on the judgement derived from their perceptions and attach more value on more objective instruments. Results obtained through farmers' perception may depict the lack of capacity of the farming SMME owners concerning essential prerequisites for their businesses, especially their perception on the value of extension support and business plans.

Their perceptions on the value of formal markets are over-exaggerated, whilst their perception on the value of training and business types is realistic. The objective analysis of farm profitability shows that emerging farmers are unable to accurately identify factors that influence their profitability. According to the objective results, it is clear that extension support, sole proprietor-ship and business plan play a crucial role in ensuring that these SMMEs are profitable.

Assuming all things being equal, business plans appeared to be the only factor that is commonly found to increase profit using both the objective and repayment of loan assessments. Therefore, for these SMMEs to have a healthy financial condition, it will probably be necessary for their business plans to be written with their participation and with ongoing mentor-ship on the implementation of the business plan. When dealing with emerging farmers, banks will be well advised to have personnel conversant with this class of farmers. It is hoped that these results will make significant contributions to the emerging farming communities and will also be helpful to agribusiness as a whole during the planning, implementation, monitoring and evaluation phases of their business process. It is essential that agricultural stakeholders ensure that farming SMMEs have adequate support regarding the identified factors.

ACKNOWLEDGEMENT

The authors are grateful to University of South Africa (UNISA) and the University of the Free State, in particular the Department of Agricultural Economics. Furthermore, we would like to acknowledge the Land Bank, in particular the research unit under the leadership of Dr M. N. Makhura. Lastly, the authors would like to extend their appreciation to an anonymous reviewer for his/her valuable comments. However, the views expressed in this article belong to the authors.

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