

Factors Influencing Small Scale Farmers' Attitude and Participation in Formal Financial Markets in Mahikeng Municipality, South Africa

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ABSTRACT This study focused on the participation of small scale farmers in formal financial market. The study investigated socio-economic characteristics of small-scale farmers, constraints and attitude towards formal financial markets in the Mahikeng municipality of the North West Province. Structured questionnaire were used to collect data from farmers and were analyzed with Statistical Package for the Social Sciences using, frequency counts, percentages and multiple regression. It was found that, commercial banks and insurance institutions were most popular among farmers. Household size ($t=2.491$), farming experience ($t=-2.521$) and membership of farmers group ($t=2.36$) significantly influence participation in formal financial markets. Educational level ($t=2.205$), farming experience ($t=2.302$) and extension contact ($t=-1.969$) were the determinants of farmer's attitude towards formal financial markets

INTRODUCTION

Policy makers in the agricultural sector agree that rural financing and credit are effective institutions which lead to development of rural and agricultural activities (Moghaddas-Farimani et al. 2008). According to Awunyo (2010), formal financial markets are development catalysts of important sectors including industries and agriculture through increased productivity in the agricultural sector. The importance of the financial market (formal financial sector) is stressed by the central monetary authorities' controlling of credit ceiling and interest rates such that low interest rates increases investment, production (output) and employment, thus increasing savings. However regulations tied around the formal financial market make it difficult for farmers especially in developing countries to participate. Adofu et al. (2010) stated that the emergence and existence of informal financial markets is a result of excess regulations in the formal financial sector.

Formal financial sectors are commercial banks, insurance, leasing financial institution, a development bank, savings bank, building society, development finance company, stock exchange, stock broker, and pension funds, asset management companies (Okurut and Botlhole 2010). Formal financial services are defined as

registered companies that are licensed to offer financial services by central monetary authority (Ghate 1992). The South African monetary authority is called the Reserve Bank. Both the formal and informal institutions are important to the farmers and they have their advantages and disadvantages. Some of the financial services that farmers usually need include savings, loans, investments and insurance. Farmers may find that services offered in one sector do not fully satisfy their needs hence may go for the other sector or a combination of two. Formal financial markets accelerate the process of development for the farmers (Awunyo 2010), whereas it might not be easily accessible and available especially for small scale farmers. Informal sectors may be accessible to many farmers but not to farmers who are not of the same geographical location as the informal market dealers may not have enough financial resources to issue long term financial assistance (Awunyo 2010).

Awonyu (2010) reported on farmers' participation in formal financial markets in Ghana and identified 9 formal institutions. These institutions were divided into 3 major segments, namely universal banks, rural banks and non-banking financial institutions. The study reported that most of the universal banks do not offer their services to farmers. The Agricultural Development Bank (ADB) offers credit facilities that are designed to suit farmers' need. Rural banks are

most extensive network of deposit taking and credit facilities in each of the study districts. In the study area it was found there were 14 rural banks which has contributed to the growth and popularity of the bank because of close proximity and easy access to services provided by the bank. The study also stated that the informal financial market is not necessarily a substitute for formal financial market. The use of financial market is dependent on farmers' attitude among other things.

Attitudes are defined as a disposition to respond favorably or unfavorably to an object, person, institution or event. An attitude is a behaviour that is directed towards an object, person, institution, or event, which is based on evaluative, positive or negative, elements, according to cognitive beliefs towards the object (Bergevoet et al. 2004). Many beliefs and values may underpin attitude (Willock et al. 1999). Attitude refers to a person's evaluation of any psychological object. These evaluation judgments are represented as items of knowledge, which are based on three general classes of information: cognitive information, emotional information, and information about past behaviors (Allen et al. 2003). Attitude is a predisposition to act in a certain way. It is the state of readiness that influences a person to act in a given manner (Rahman et al. 1999). Therefore, attitude surveys in agriculture could lead to a more adequate explanation and prediction of farmers' economic behavior. Investigators have taken four different positions concerning causal relationships between attitudes and behaviors: attitudes cause behaviors; behaviors cause attitudes; attitudes and behavior have mutual causal impact; and attitudes and behaviors are slightly, if at all related (Bentler and Speckart 1981). In South Africa farmers are generally classified as commercial and small scale (Kirsten and Zyl 1998). Most farmers seem to participate in a financial market where they incurred the least cost.

Objectives of Study

This study examined small scale farmers' participation in formal financial markets in Mahikeng municipality. The specific objectives of the study are to identify personal characteristics, determine participation, constraints and ascertain attitude towards formal financial markets. The study examines the relationship between farmers' participation in formal financial

markets and their socio-economic and market factors.

METHODOLOGY

Area of Study

The study was carried out in the Mahikeng municipality, Ngaka Modiri Molema district in the North West Province. Mahikeng is the capital city of North West Province. It is located on South Africa's border with Botswana. The total area of the Mafikeng Local Municipality is approximately 3 703 km². It is divided into 28 wards consisting of 102 Villages and suburbs. The coordinates are 25°51' S 25°38' E. The population of this study was all small scale farmers in Mahikeng Municipality of the North West Province. The list of farmers provided by the North – West Department of Agriculture, Conservation, Environment and Rural Development indicates that there were 250 small-scale farmers. Simple random sampling method was used by drawing from the hat to select farmers from the population based on the list of farmers in Mahikeng municipality. From 10 selected villages in the municipality, 12 farmers were selected in each village to give a total sample size of 120 small scale farmers. Data for the study were collected from primary sources, a structured questionnaire was used to get information from the small scale farmers with sections on personal characteristics of farmers (age, sex, educational level, income range, number of dependants, type of farming enterprise and numbers of years in farming); attitude, constraints and participation in formal financial markets. Data was sorted, coded and analysed with SPSS (version 18), using mean and percentages to describe the data and multiple regression were used to isolate determinants of participation in formal financial markets.

RESULTS AND DISCUSSION

Table 1 shows there were more men (54.5%) than women (45.5 %). This might be due to the fact that more men are engaged in agricultural activities than women. Commission for Gender equality (2009) stated that more men have land ownership than women due to the fact that the beneficiaries of land restitution were 12% females and 91% males in North West province. This study shows that at least 59 % of the small

scale farmers are 40 years old. This might be because of an increasing interest in agriculture among young adults and the elderly people are not as strong to carry out farm activities. As stated by Oladele (2011), even though years of experience count, young farmers are needed on the farm because agricultural production demands strength. Table 1 shows that 47.9% of the respondents were married whereas 3.3% were divorced. Oladele (2011) suggested that the high percentage of married farmers helps to provide family labour. The table further shows that 55.4% of the respondents have dependants between 1 and 3. As shown in Table 1 most farmers use their personal land (61.7%) while 1.7% use rented land. Table 1 shows that 67.8% of farmers have between 1 to 50 hectares whereas 31.67% have above 100 hectares. In this study, 31.5% of the farmers earn at least R50 000, generating approximately R4 166 per month, 24.7 % earn from R51 000- R100 000 generating approximately R8 333 per month (if amounts are not viewed as per season).

From Table 1, 67.8% farmers belong to farmers group and 32.2% do not. The high percentage of farmers in groups might be because they share information that will be helpful to meet their production needs. Extension officers provide farmers with information on how to use resources to reach optimum yields. About 86.8% of the farmers had contact with extension, out of which 38% had contact with extension occasionally. Only 13.2% of the farmers did not have contact with the extension officers. William et al. (2008) stated that the ratio of extension officer to farmer in the study area is 1: 500 farmers. In Table 1, 73.6% of the farmers had primary school education while 52% of farmers had 1-5 years farming experience. This might be that there are new entrants into farming in the last 5 years.

From Table 2, about 99% of the farmers indicated that commercial banks are available to them. This might be due to the fact that the Mahikeng municipality has many branches of different commercial banks in different parts of the municipality that are available to the farmers however this does not mean that they can access the financial services. Table 2 shows that 66.9% find commercial banks effective and 81.8% of the farmers are able to access insurance institutions while 38.0% find the insurance institutions effective. The Post Office which offers banking services, mostly for savings was also indicated

by 92.6% of the farmers as accessible while 52.9% of the farmers find it effective.

Table 1: Personal characteristics of farmers

<i>Personal characteristics</i>	<i>Frequency</i>	<i>Percentages</i>
<i>Gender</i>		
Female	55	45.5
Male	65	54.5
<i>Age (in years)</i>		
21-30	25	20.8
31-40	24	19.6
41-50	18	15
Above 50	53	44.17
<i>Marital status</i>		
Single	44	36.4
Married	57	47.9
Widowed	15	12.4
Divorced	4	3.3
<i>Dependants</i>		
1-3	67	55.4
4-7	48	40.5
Above 7	5	4.1
<i>Size of the Household</i>		
1-4	52	42.2
5-9	66	55.4
10-14	2	2.4
<i>Sources of Land</i>		
Personal	74	61.7
Rented	2	1.7
Allocated	44	36.6
<i>Farm Size</i>		
1-50	82	67.8
51-100	2	1.6
Above 100	38	31.67
<i>Level of Income (R)</i>		
Less than 50 000	38	31.5
50 000- 100 000	30	24.7
Above 100 000	52	43.3
<i>Membership Farmers Group</i>		
Members	82	67.8
Non-members	38	32.2
<i>Contact with Extension</i>		
No	16	13.2
Yes	104	86.8
<i>Education Level</i>		
Primary school	20	73.6
Secondary school	12	9.9
Tertiary education	88	16.5
<i>Farming Experience</i>		
1-5	63	52.6
6-10	29	24.2
Above 10	28	23.2

As shown in Table 3 small scale farmers in the Mahikeng municipality make use of formal financial markets, 76.6% of the farmers use services provided by commercial banks and 64.1% participate on a frequent basis. This might be due to the fact that commercial banks have introduced several services and products to make them accessible to all categories of individuals,

Table 2: Distribution and availability of formal financial markets

<i>Formal financial markets</i>	<i>Financial markets availability</i>		<i>Financial markets effectiveness</i>	
	<i>No</i>	<i>Yes</i>	<i>Not Effective</i>	<i>Effective</i>
Commercial banks	1(0.8)*	119 (99.2)	37 (30)	81 (66.9)
Merchant investment bank	110 (90.9)	10 (8.3)	11 (9.1)	2 (1.7)
Insurance institution	22 (18.2)	97 (81.8)	41 (33.9)	56 (46.3)
Leasing financial institution	94 (77.7)	26 (21.5)	27 (22.3)	2 (1.7)
Stock exchange	83 (68.6)	36 (29.8)	37 (30.6)	1 (0.8)
Stock brokers	97 (80.2)	23 (19.0)	24 (19.8)	1 (0.8)
Pawn brokers	83 (68.6)	37 (30.6)	39 (32.2)	-
Post office	9 (7.4)	111 (92.6)	64 (52.9)	47 (38.8)
Pension fund	101 (83.5)	19 (15.7)	11 (9.1)	13 (10.7)

*Figures in parentheses are percentages

Table 3: Small- scale farmers' participation in formal financial market

<i>Formal financial markets</i>	<i>Participation in these markets</i>		<i>Frequency of participation</i>	
	<i>No</i>	<i>Yes</i>	<i>Every season</i>	<i>Every other season</i>
Commercial banks	29 (24.0)*	91 (76.0)	76 (64.1)	15 (12.4)
Merchant investment bank	120 (100)	0 (0)	0 (0)	0 (0)
Insurance institution	59 (48.8)	61 (51.2)	57 (47.1)	2 (1.7)
Leasing financial institution	118 (98.3)	1 (0.80)	0 (0)	1 (0.8)
Stock exchange	120 (100)	0 (0)	0 (0)	0 (0)
Stock brokers	120 (100)	0 (0)	0 (0)	0 (0)
Pawn brokers	117 (98.3)	2 (1.7)	1 (0.8)	0 (0)
Post office	71 (59.5)	48 (40.5)	34 (28.1)	14 (11.6)
Pension fund	111 (93.4)	8 (6.6)	1 (0.8)-	4 (3.3)

*Figures in parentheses are percentages

thus many are still attracted to their services. According to Awunyo (2010), banks offer credit facilities and extensive deposit taking. About 61.0% of the farmers make use of insurance institution and 47.1% use insurance institution services on a frequent basis. About 41 % of the farmers use post- office, of which 28.1% participate on a regular basis.

Table 3 also shows that none of the participants (100%) make use of the services provided by the Johannesburg Stock Exchange. This might be due to the regulation that the farmers cannot meet due to the distance of the market and the nature of their income (low level). According to SAFEX (South African Future Exchange) a farmer need to pay R10 000 per contract for white and yellow maize. Most farms as mentioned in the personal characteristics earn low income thus are unable to participate in the Johannesburg Stock Exchange market.

From the list of constraints presented in Table 4, prominent constraints hindering small scale farmers' participation in formal financial markets are language barriers, lack of collateral, lack of

information and strict terms and conditions. About 77% stated that their low level of income hinders them in terms of access to services and 46.3% this as a severe constraint. Formal financial markets required security before they can provide assistance especially with issuing of loans. About 81% of the farmers stated that the high interest rate is a constraint. According to the South African Reserve Bank the repo rate is currently at 9.00%. The repo rate is the benchmark rate at which the banks lend out the public (SARB 2011). When farmers repay the loans they spend more time repaying the interest and not the principal amount. Table 4 shows that 68.6% of the farmers are faced with the constraint of high transaction costs. Banks charge users for both withdrawals and deposits. Banks charge on services because they generate income from these costs (Botha et al. 2009: 78-79).

The results on farmers' attitude towards participation in formal financial market are presented in Table 5. About 84.3% agreed that interest charged is too high. About 59.9% disagree that the financial markets are not easily accessible.

Table 4: Constraints facing farmers in participation in formal financial markets

<i>Constraints</i>	<i>No</i>	<i>Yes</i>	<i>Ranking of the constraints</i>		
			<i>Low</i>	<i>Moderate</i>	<i>Severe</i>
Low level of income	26 (21.5)*	94 (77.7)	11 (9.1)	27 (22.3)	56 (46.3)
Failure to provide collateral	67 (55.4)	53 (53.8)	8 (6.6)	20 (6.5)	26 (21.5)
Queues in the bank	54 (42.6)	66 (54.5)	42 (34.7)	18 (14.9)	4 (3.3)
A lot of forms to fill in	59 (48.8)	60 (49.6)	30 (24.3)	25 (20.7)	4 (3.3)
Travelling costs	39 (32.2)	81 (66.9)	47 (38.8)	28 (23.1)	7 (5.8)
Ambiguous terms and conditions	50 (41.7)	70 (57.9)	31 (25.6)	34 (28.1)	6 (5.0)
Bureaucracy	69 (57)	51 (42.1)	18 (14.9)	24 (19.8)	7 (5.8)
High interest on repayment	21 (17.4)	99 (81.9)	9 (7.4)	41 (33.9)	46 (38.0)
Not enough money loaned out	49 (50.4)	71 (58.7)	11 (9.1)	42 (34.7)	16 (13.2)
Lack of information about the market	74 (61.2)	46 (38.0)	23 (19.0)	17 (14.0)	7 (5.8)
High transaction costs	38 (31.4)	82 (68.6)	28 (23.1)	37 (30.6)	12 (9.9)
Language barriers	103 (85.1)	17 (14)	5 (4.1)	10 (8.3)	2 (1.7)
Strict terms and conditions	98 (81)	22 (18.2)	9 (7.4)	11 (9.1)	2 (1.7)
Loan repayment terms	104 (86)	16 (13.2)	4 (3.3)	10 (8.3)	3 (2.5)
Lack of savings	71 (58.7)	48 (39.7)	6 (5)	26 (21.5)	16 (13.2)

*Figures in parentheses are percentages

Table 5: Farmers' attitude towards participation in formal financial markets

	<i>SA</i>	<i>A</i>	<i>U</i>	<i>D</i>	<i>SD</i>
Farmers' satisfaction with services	13 (10.7)*	26 (21.5)	16 (13.2)	54 (44.6)	11 (9.1)
Farmers provision of collateral	13 (10.7)	28 (23.1)	-	58 (47.9)	21 (17.4)
Financial market helpfulness to needs.	9 (7.4)	22 (18.2)	22 (18.2)	61 (50.4)	6 (5.0)
Financial market helpfulness to consumption needs.	12 (9.9)	14 (11.6)	17 (14.0)	61 (50.4)	16 (13.2)
High interests rates.	21 (17.4)	81 (66.9)	11 (9.1)	6 (5.0)	1 (0.8)
Low level of income hinders desired financial assistance	28 (23.1)	46 (38.0)	9 (7.4)	36 (29.8)	1 (0.8)
Long queues discourage participation.	3 (2.5)	43 (35.5)	19 (15.7)	53 (43.8)	2 (1.7)
Filling long forms discourages participation	5 (4.1)	46 (38.0)	13 (10.7)	3 (2.5)	1 (0.8)
Long time before getting assistance	2 (1.7)	37 (30.6)	23 (19.0)	58 (47.9)	1 (0.8)
Travelling locations discourages participation.	3 (2.5)	56 (46.3)	13 (10.7)	43 (35.5)	5 (4.1)
Financial markets are easily accessible	1 (0.8)	19 (15.7)	20 (16.5)	72 (59.5)	8 (6.6)
Working hours are favourable	1 (0.8)	27 (22.3)	31 (25.6)	60 (49.6)	1 (0.8)
Market helps farm growth.	6 (5.0)	25 (20.7)	24 (19.8)	58 (47.9)	7 (5.8)

*Figures in parentheses are percentages. * (SA- Strongly Agree, A- Agree, U- Undecided, D- Disagree, SD- Strongly Disagree)

Even though the respondents stated that some of the formal financial markets are available to them they still cannot access them with easy because they still have to travel to get financial assistance. Also, 53.7% of the farmers are not satisfied with the many of services available. This might be due to the fact that the service provider has regulations that the farmers cannot meet. There is no room to cater for small scale farmers and the nature of their income because there is a risk of non payment. Services are effective when they can meet the needs of the farmers. According to Botha et al. (2009), financial services that will meet farmers' needs should fulfil one or more of activities such as education for the children, home improvements, consumption purposes, smooth seasonal fluctuations in cash flow, debt management, purchase of goods and services, finance micro businesses ventures. Farmers are not satisfied because services that are provided are not designed for their needs, and if they are there is still a constraint of access to the services.

Table 6 shows the result of the Multiple regression analysis of socioeconomic characteristics on participation, and attitude towards formal financial markets. The independent variables were significantly related to participation of small scale farmers in formal financial market with F value 1.710 $p < 0.05$. Also the R value of 0.72 showed that there was correlation between the independent variables and participation in formal financial market. The results predicted 52% of the variation in participation in formal

markets. The significant variables were educational level ($t = 3.08, p < 0.05$); membership of farmers groups ($t = -2.36, p < 0.05$) and extension contact ($t = -3.06, p < 0.05$).

In terms of farmers attitude towards participation in formal financial market, the independent variables were significantly related to formal attitude with an F value of 5.154; $p < 0.05$. Also an R value of 0.624 shows a moderate to strong correlation between the independent variables and formal attitude. It was found that 39% of formal attitude is accounted for by the independent variables. Three out of 13 independent variables were significant at 5% (education level, years in farming and Contact with extension officers). Significant determinants of attitude among farmers were level of education level ($t=2.205, p < 0.05$), years in farming ($t=2.302, p < 0.05$) and contact with extension ($t= -1.969, p < 0.05$). These findings imply that the higher the education level and years in farming the higher the positive attitude towards formal financial markets however it declines with the decreasing contact with the extension.

Table 6: Multiple regression analysis of socio-economic characteristics and participation, attitude towards formal financial markets

	Participation in formal market	Attitude towards formal market
Constant	11.394(4.800)*	39.529 (5.934)***
Gender	0.078(1.064)	-1.055 (1.315)
Age	NA	0.003 (0.062)
Marital status	0.067(0.050)	0.372 (0.866)
Number of households	0.133(0.243)	-0.343 (0.301)
Educational level	1.51(0.49)*	1.321* (0.559)*
Years in farming	-0.014(0.065)	0.185 (0.080)*
land Sources	0.517(0.541)	-0.23 (0.669)
Farm size	0.000(0.002)	0.008 (0.003)
Membership of famers groups	-2.670(1.13)*	-1.313 (1.395)
Extension contact	-1.35(0.447)*	-3.521 (1.789)***
Labour sources	0.882(0.633)	1.093 (0.782)*
Income	5.059E -6(0.000)	5.314E-6 (0.000)
Farm system	0.171(0.699)	0.658 (0.864)
R	0.72	0.624
R ²	0.52	0.390
Durblin Watson	1.936	1.742
F	1.710	5.154
P	0.05	0.000

*Figures in parentheses are significant. * Significant at 5% ** Significant at 10% *** Significant at 1%

CONCLUSION

The formal financial markets are of importance to farmers as they help provide services to enhance the resources for input into the production process. This study has shown formal financial markets are available in the study area, small scale farmers participate more in commercial market and insurance institutions and are favourably disposed to formal financial markets. Prominent constraints towards participation in formal financial markets are language barriers, lack of collateral, lack of information and strict terms and conditions. Significant determinants of participation in formal financial markets were educational level; membership of farmers groups and extension contact; while for attitude towards formal financial market significant variables among farmers were level of education level, years in farming and contact with extension. There is need to improve the conditions of services and information for farmers to be able to have more benefit from the formal financial markets.

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