

Factors Affecting Credit Accessibility by Small Scale Dairy Farmers in Trans Nzoia County, Kenya

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Abstract: This study determined to find the critical factors that affect the accessibility of credit by small scale dairy farmers in Trans Nzoia County of Kenya. A survey study design was used and the study purposively selected a sample size of 100 dairy farmers who were randomly selected. Main data collection tools used was close-ended questionnaires. The data was analyzed by use of descriptive statistics and then presented using tables, pie charts and graphs. The study findings depict a clear significance of this study in determining factors that affect borrowing characteristics of small scale dairy farmers in the county. Although an estimated 93% of the farmers engage in dairy farming for income purposes, only 25% earn 50% and above of their income from it. A multiple regression analysis to predict on factors affecting accessibility of credit depicted a statistically significantly value of, $F(6,164) = 1.384$, $p < .0005$, $R^2 = 0.048$. All the variables had statistically significantly to the prediction, $p < .05$ apart from Account History. Since Variable-History of Account had a missing correlation. Therefore the study concluded that the significance of this study and the need to address all the highlighted factors that are directly linked to poor borrowing characteristics of small scale dairy farmers in the county. The study recommended solutions to these highlighted factors that included enlightening small scale farmers on the importance of accessing and utilizing credit services with an aim of improving their dairy farming capacity just like their counterparts who practice large scale.

Keywords: Factors, Credit Accessibility, Small Scale, Farmers, Kenya.

INTRODUCTION

Small scale farming has increasingly become a key source of livelihood for many farmers especially in margin rural areas. However this has been hindered by lack of resources needed to practice farming especially on farm inputs. This has led most of them to seek alternatives by accessing credits from financial institutions in order to boost their businesses. Access to loans by small scale farmers has contributed a lot in helping the poor increase their family income through capital accumulation and investment in income generating activities [1]. This has made small scale farming to become an important sector in most developing Countries. Governments have been urging investors to support the sector in order to contribute towards the global goal of poverty alleviation.

Francis [2] indicates that access to credit by small scale farmers is an important factor in improving agricultural productivity and strengthening the economy in rural economy in developing countries. However the ability of farmers' access to credit is implicated by factors that influence the accessibility of these services. Such factor includes availability of nearby financial institution, collateral requirement, financial costs, rigid lending policies and education level of farmers [2]. In

the past commercial banks would not consider extending credit to individual farmers unless they went through cooperative societies that kept financial records. It is estimated that around 150 million small-scale dairy farming households, around 750 million people, are engaged in milk production, the majority of them in developing countries, [3]. Globally, the mean dairy herd size is around two cows providing an average milk yield of 11 liters per farm per day. Throughout the world, there are around six billion consumers of milk and milk products, the majority of them in developing countries.

Across the countries, small-scale milk producers have very competitive production costs and thus, if organized, have the potential to compete with large-scale, capital-intensive, 'high-tech' dairy farming systems in developed and developing countries. With very few exceptions, smallholders achieve relatively high incomes per litre of milk. They are also comparatively resilient to rising feed prices as they usually only use small amounts of purchased feed. Growing consumer demand for dairy products in developing countries, driven by population growth and rising incomes, offers important market opportunities for smallholders [3]. Better farm management practices,

expanding dairy herd sizes and increasing milk yields could easily improve smallholder labor productivity, which currently is rather low. "Dairy sector development can therefore be a potent tool for poverty reduction," [3].

The challenges confronting Africa's small-scale farmers, start in the field and extend across the entire agricultural value chain. Most African farmers can neither access nor afford basic farm inputs. High quality seeds, organic and mineral fertilizers needed to replenish depleted soils, and simple water management systems that allow farmers to deal with erratic rains and good roads are not necessarily available. Strong market, extension, and finance systems may be lacking. Small-scale farmers also need the support of government policies that promote sustainable and productive agriculture and that ensure access to markets [4]. Since the early 1960s, Africa has gone from being a net food exporter to a net importer. Per capita food production has declined as the population growth rate of 3 percent a year has outstripped the 2 percent annual increase in food production [5].

Credit is an important instrument for improving the welfare of the poor directly through consumption smoothening that reduces their vulnerability to short-term income. It also enhances productive capacity of the poor through financing investment in their human and physical capital [6]. The demand for credit for productive investments usually comes from those poor who are less risk-averse and enables them to overcome liquidity constraints, making it possible to undertake investment that can boost production, employment and income. A study in Uganda has shown that the failure of formal banks to serve the poor is due to a combination of high risk, high costs and consequently low returns associated with such business [6]. In South Africa, financial intermediaries have not been able to accommodate small-scale rural farmers because it is risky, costly and a difficult task associated with high transaction costs. Lack of information prevented large formal lenders who had capacity to serve the small farmers and the poor from doing so. The methods and practice of most banks in Limpopo Province did not meet the needs of their clients [7].

A research by Kgowedi *et al.*; [8] clearly states how undisputable small-scale farmers have always had a problem of access to credit. To improve the access improvement need to be made in the provision of financial services. He further point out that in order to improve financial services, lenders need to consider the preferences and socio-economic condition of clients. This contributes to both regulatory process as well as product development. Thus, an understanding of characteristics influencing farmers' decision to use

agricultural credit could assist policy formulation that could enhance welfare of the poor or those excluded from access to credit [9].

In many developing countries, smallholders lack the skills to manage their farms as 'enterprises'; have poor access to support services like production and marketing advice; have little or no capital to reinvest with limited access to credit; and are handicapped by small herd sizes, low milk yields and poor milk quality [3]. Massive policy interventions (price support, milk quotas, direct payments, investment support programmes, and export subsidies) in developed countries create a competitive advantage for the OECD dairy sector and penalize dairy farmers in developing countries, the report noted. Smallholders are also affected by trade liberalization which increasingly exposes them to competition from large-scale corporate dairy enterprises that are able to respond more rapidly to changes in the market environment.

In Kenya, there is a massive reduction in farming units due to land subdivision, increased number of farmers hence reducing per capita small scale farming incomes. Rigid banking policies such as on lending or minimum deposits and lack of enough information on the farmers earning and spending habits has made credit service providers to find it risky. This has impacted negatively on small dairy scale farmers since financial institutions find it costly to take credit services closer to them. With thousands small scale dairy farmers each with an average family size of six, approximately three million Kenyans earn their livelihood on small scale dairy farming [9].

Despite the significant contribution of these small-scale dairy farmers to the economy, no study has been conducted in Kenya to determine the factors that affect access to credit services and the relative importance. Previous research on factors that affect the accessibility of credit services has been undertaken, for example, Kimani [10] and David [11]. None of the studies have tackled the factors that affect the accessibility of credit services by small-scale dairy farmers in Kenya. It is in this light that the researcher seeks to fill the existing gaps on credit accessibility by small scale farmers which was not addressed by both Kimani [10] and David [11]. The study intends to answer what is the relative importance of the identified factors to small scale farmers on credit accessibility.

LITERATURE REVIEW

A case study in Brazil [12] where a local frozen vegetable firm managed to engage in successful contracting with smallholders despite the inherent problems listed above. The company designed contracts that both parties found profitable. The firm offered resource-providing contracts that provides saving

services, delivered credit, specialized inputs and extension advice. The credit to the farmers was advanced against no collateral in the form of seedlings, all pesticides and fertilizers. The value of these advances was equal to about 40 per cent of total production costs, with the farmers being responsible for land, labor and the costs of land preparation. The out-of-pocket costs for the farmers were thus in the same range as the costs for maize. In addition, the company introduced a management strategy that further reduced transaction costs [12]. Participation by smallholders was restricted to a certain location and chemical control decisions were taken by an agronomist who visited growers once a week, carrying all material with him at all times. Farmers were responsible for obtaining their seedlings and fertilizers from the firm's ranches and for delivering their harvests. This strategy has reduced transaction costs tremendously, making the contract arrangement with the smallholders profitable.

To counter the problem of high transaction costs of dealing with smallholders is to consider the promotion of farmer groups or farmer-controlled enterprises (commonly also referred to as cooperatives) in conjunction with a contract-farming venture. The cooperative could bargain and negotiate prices and the terms of the contract on behalf of the farmers. It can also be instrumental in providing information, inputs, technical and quality assistance to the growers. The agribusiness as such will have a stake in strengthening such institutions since it will contribute to considerably lowering transaction costs. These cooperatives should be assisted by the agribusiness through training in literacy and numeracy and improving their ability to bargain effectively (despite this not being in the direct interest of the agribusiness).

This would help the farmers' group or cooperative not to become excessively linkage dependent. Owing to the poor record of agricultural cooperatives in developing countries, it is important that such cooperatives be established on sound principles that will ensure their sustainability. The recent work by Cook and Chaddad [13] provides an indication of the aspects that should be taken into account to ensure that cooperatives (or new generation cooperatives', as these authors call them) provide the necessary benefits to producers in any contractual or marketing arrangement.

A number of studies have emphasized the role risk aversion plays in slowing down the adoption of new technology. Small-scale farmers have no margin of error, because there is little or no production surplus. Crop failure or the death of a single animal may be a disastrous loss, 'Poverty ratchet on an irreversible course to greater misery' [14]. Several published surveys indicate that small-scale farmers are likely to be slower to adopt new technology when the risk

involved is high. However, in practice the risk factor seems to have had a surprisingly small effect on research design or technology recommendations, where small farms are concerned.

In part, this is because it is difficult to evaluate the importance of risk aversion in farmers' response to new technology, and it is difficult to incorporate into research something it is not easy to demonstrate and is impossible to quantify. The relationship between the adoption or rejection of new technology and risk aversion is not a simple one. As [15] have pointed out; innovation entails both a subjective risk, in that lack of familiarity with new technology makes the farmer's yield less certain, and an objective risk, in that the innovation may be more vulnerable to bad weather or pests than the traditional practice it replaces. The farmer's assessment of the risk involved is a composite of many factors, of which the nature of the technology itself is only one. Others include his faith in the extension worker's competence, previous experience in agricultural innovation, and the amount of information he is given concerning the new technology. (A number of studies have shown a strong relationship between the farmer's decision to adopt new varieties and his access to information about them, whether by extension agents, demonstration plots or the mass media). Furthermore, in some cases new technology may reduce rather than increase risk, as when effective pest control techniques lower the risk of crop damage or failure [16].

The difficulty involved in isolating or measuring the different variables means that, although risk aversion is assumed to be a component in the behavior of small-scale there is very little certainty as to its relative importance, and as to the extent to which the farmer's perception of risk is a correct one. (Kamau, 2008) Many cases of small-scale farmer's refusal to risk investment in new technology may be justified, in the sense of being a correct assessment of the objective facts. When agricultural scientists and extension specialists first faced the problem, a few decades ago of the widespread refusal by small-scale farmers to adopt modern agricultural technology, researchers naturally looked for an explanation by comparing the farmers who did not modernize with those who did. At that time, modernization of agriculture implied a strong value judgment, and it was generally assumed that those who adopted new technology were enterprising and innovative, while the 'laggards' who did not represented the more conservative and passive farmers. Later, it was realized that the innovators were not so much enterprising as comparatively wealthy, while the laggards were generally poor, so that the major cause of non-adoption was believed to be lack of resources with which to do so [9]. The chain of causation was felt to

run from wealth to innovation, rather than the reverse, as had been believed earlier.

The poverty of the small-scale farmer in developing countries means that, not only does he have few resources to invest, but also that any capital investment at all involves a much higher level of risk than it does for the wealthy farmer. It is a tenet of gambling that a rational decision on whether a risk is justified or not depends on an evaluation, not only of potential losses versus potential gains, but of whether those potential losses are manageable (should they occur) in relation to assets already owned. The degree of risk involved in investing Shs 10,000 depends, not just on the chances of success, but also on the proportion between that Shs 10,000 and the investor's total resources [9]. A Shs 10,000 investment is a very small risk to a millionaire, whatever the probable outcome, but it is a very big risk to a poor person with an annual income of Shs 20,000. Technology for the small-scale farmer should carry as little risk as possible and the level of risk should be defined in terms, not only of the probability of gain versus loss, but in terms of the proportion, the maximum possible losses bear to total farm income.

An example of programmes for small-scale farmers, which have not considered this aspect, can be seen in several livestock programmes recently established in this region. These are intended specifically to give the poorer farmer supplementary income. Several of these programmes provide the farmer with livestock on credit, the money to be repaid when the animal is sold for meat after being fattened by the farmer, or from the profit from dairy products. However, even when large, very expensive animals such as cattle are involved, there are generally no livestock insurance programmes. The farmer bears the whole risk of the value of the animal, which may be more than his total annual income [17].

On a research conducted by [9] he quotes a statement by [18] which states that developing countries around the world have seen a reduction in rural access to financial services over the last two decades, with the closing of many agricultural development banks. The decisions to close these institutions were well founded where the banks: Focused on subsidized, directed and politicized credit at the expense of other financial services demanded by the rural poor, discouraged sufficient mobilization of savings due to subsidized interest rates, directed loans to finance specified numbers of hectares of specified cows, or number of animals influencing borrower decisions on what to grow, forgave debt for political reasons, undermining the development of a sound credit culture and blurring the distinction between grants and loans and ran up enormous losses, straining national budgets.

Donor and government recognition of these failures resulted in a wave of development bank closures, and an appreciation of financial systems and the distorting effects of government and donor intervention [9]. This awareness contributed to the considerable and rapid growth in microfinance institutions, and privatized commercial banks complying with the financial systems approach over the last fifteen to twenty years. Few of these however, have moved in to serve the rural market. This fact frustrates governments and donors seeking to increase the level of investment in rural development and economic opportunities for farm households, rural enterprises and value chains, clusters and industries in which they work. Growth for these actors often is limited by the scarcity of institutions offering loans for investment and working capital, savings products, and other financial services. Conditions in rural areas help to explain the gap in rural financial services. Rural areas typically face high transaction costs. Compared to urban areas, clients are more dispersed, infrastructure is less developed, and branch networks are more expensive to maintain.

Information to assess a borrower's ability and willingness to repay a loan is difficult and expensive to obtain. Collateral is more limited, often less documented, and more difficult to liquidate, increasing provisioning and foreclosure costs for financial institutions. Financial institutions that historically blurred the distinction between grants and loans have helped to create a credit culture in which rural residents may be less willing to repay their loans. Financing agriculture creates an additional set of costs and risks, from its seasonality and requirements for longer terms; to the fact that many borrowers will face the same production and price risks [19].

At the Paving the Way Forward for Rural Finance conference, [9] cites how (Vega 2003) described three gaps between the demand and supply of rural financial services. These gaps are caused by factors such as distortions of policies, regulatory frameworks, governance structures, and subsidies that favor inefficient providers, which discourage efficient institutions from entering the market; Costs faced by efficient financial institutions to deliver rural financial services, that need to be lowered through investments in infrastructure and innovations in technology, products and processes for delivering those products; and Unrealistic expectations, based on assessments that are more political than economic in nature, that overestimate the real demand for rural financial services. These unrealistic expectations often contribute to the distortions described above.

According to [9] these gaps and challenges help to illustrate a financial systems perspective, one

that focuses on the policy and regulatory environment and financial institutions as primary units of analysis. Given the complexity of financial systems, donors and project designers may grow frustrated with interventions that are slow in closing these gaps. Those who see the potential for the growth and expanded participation of small farmers and micro enterprises in particular value chains find themselves asking how do we get the needed credit out there to tap potential growth and poverty alleviation opportunities: the banks are not willing, the MFIs remain urban focused, and must we wait until the enabling environment is ideal?

METHODOLOGY

The adopted a cross sectional exploratory survey with a mixed approach of qualitative and quantitative research in the dairy industry in Trans-Nzoia county and questionnaire developed in light of the literature review was used to collect data from the respondents. The questionnaire was pretested to enhance its validity and content. The target population consisted of small scale farmers engaged on dairy farming activities in Trans Nzoia County. The study

used purposive sampling technique where the units that were investigated were based on the judgment of the researcher and a sample of 100 respondents was to participate in the study. These respondents were selected according to their accessibility of the credit facilities. Questionnaires were distributed and collected personally by the researcher. All 100 distributed questionnaires were returned for analysis. To ensure a more representative sample of the population, respondents’ demographics were varied according to age, level of education, gender and academic disciplines. Data for this study was analyzed descriptively using regression analysis and also content analysis was used to differentiate the factors that affect access to credit.

DATA ANALYSIS AND INTERPRETATION

Income Dependency on Dairy Farming

Most Farmers under this study 93 (93%) depend on dairy farming as one of their source of income. Only a 7% which is not that significant claimed not to be depending on Dairy farming as their source of income. (n=100)

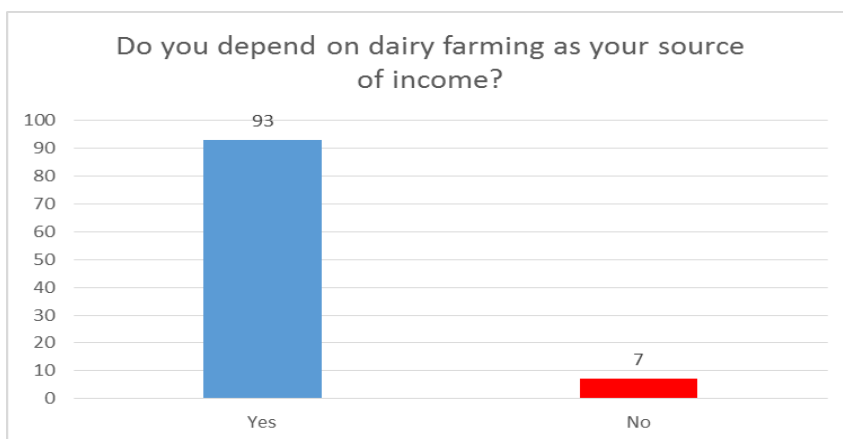


Fig 1: Income Dependency on Dairy Farming

Scale of Dairy Farming

The study revealed most farmers 91% to be keeping at least over one dairy cow. Farmers keeping

over 3 cows led with 40% while those that kept at least 2 cows were at 35%. (n=100)

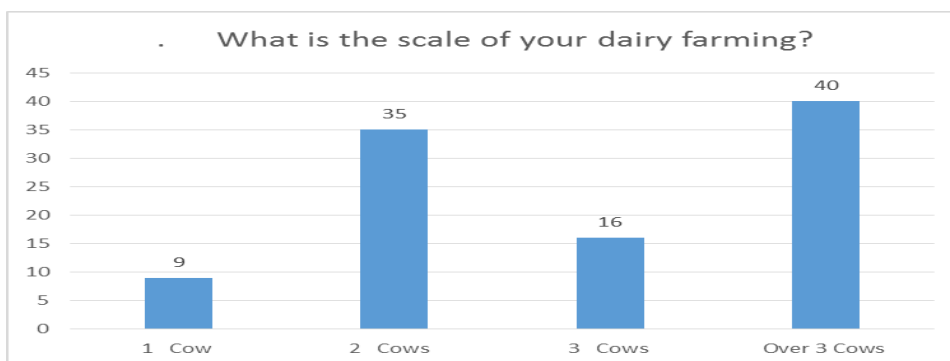


Fig 2: Scale of Dairy Cow

Duration of Dairy Farming Practice

Most farmers under this study had practiced dairy farming for at least 5 years and above. It was noted 62% had practiced the farming for 5-10 years

while only 4% had practiced for over 20 years. 22% of the farmers were early in their dairy farming practice. (n=100)

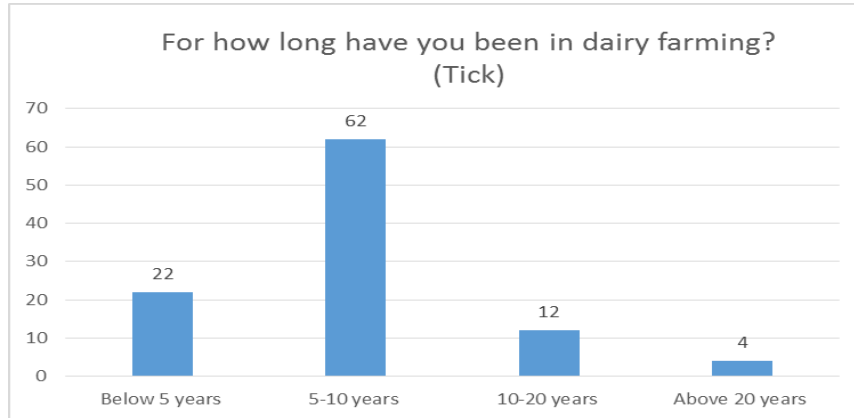


Fig 3: Duration of Dairy Farming Practice

Use of Credit Services by Farmers

The study depicted only half (50%) of the respondents had used credits services in their dairy farming. The remaining half (50%) had never used. (n=100).

Source of Credit Services

Almost all the respondents (86%) who sought credit services acquired them from financial institutions and only 14% did not. (n=100).

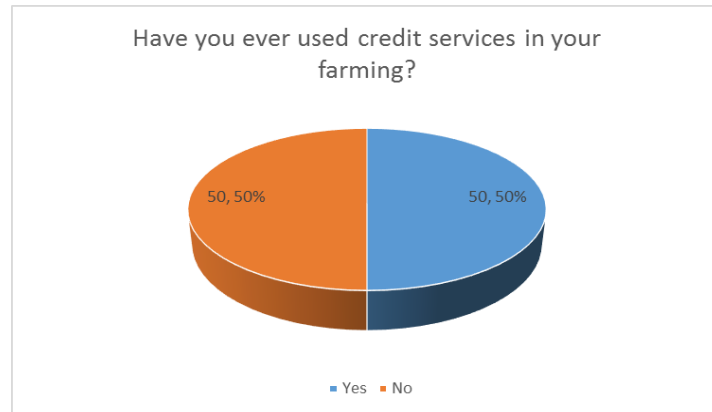


Fig 4: History of Credit use by Farmer

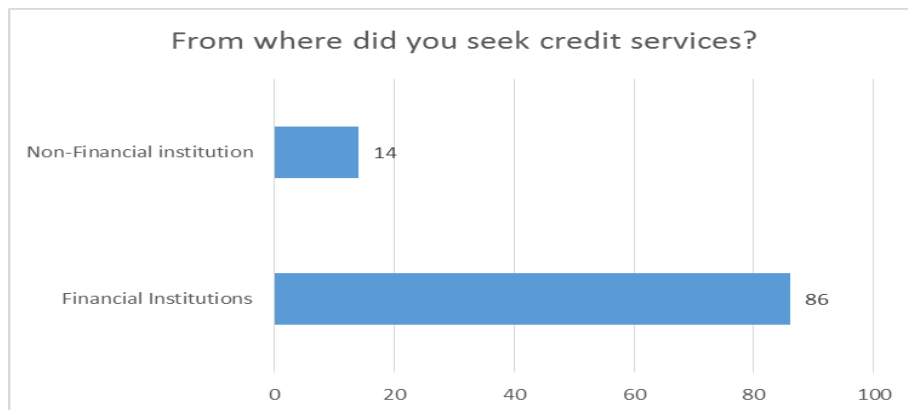


Fig 5: Source of Credit Services

Factors Influencing Credit Accessibility

The study depicted application procedure (58%), processing and approval as main factors affecting the accessibility of Credit to small scale dairy farmers. Availability of collateral and securities (56%)

and their value (58%) played a key role also in determining the availability of credit to the dairy farmers. Most farmers (87%) also agreed financial rates to be influencing the credit accessibility to them. (n=100).

Table 1: Factors Influencing Credit Accessibility

Table 1						Factors
influencing credit accessibility						
	SD	DA	UD	A	SA	
Does financial rate influence credit accessibility?						
Interest Rates	0%,0	0%,0	13%,13	32%, 32	55%, 55	
Inflation rate	0%,0	0%,0	11%,11	62%,62	27%,27	
Creditor(Bank) terms	0%,0	0%,0	0%, 0	7%,7	93%, 93	
Do lending procedures and financial policies influence credit accessibility?						
Application procedure	0%,0	0%,0	42%, 42	23%,23	35%,35	
Processing and approval	0%,0	0%,0	42%,42	38%,23	20%,35	
Does collateral and securities influence credit accessibility?						
Availability of collateral	8%, 8	2%,2	32%,32	15%,15	51%,51	
Value of collateral	0%,0	0%,0	42%,42	26%, 26	32%,32	
{This section examined factors that influenced the Lending procedures and policies on how farmers access Credit. Answers were rank by ticking (√) or cross mark (×) basing on a scale of 1-5 where; 1-Strongly Disagree (SD), 2-Disagree (DA), 3-Undecided (UD), 4-Agree (A), 5- Strongly Agree (SA)}						

Interventions Needed to Improve Provision of Credit Services to Small Scale Dairy Farmers

The study findings depicted educating farmers on costs associated with loans as the most important

factor to which needs improvements in increasing accessibility of credit services by farmers.

Table 2: Interventions needed to improve provision of credit services

Table							2
Interventions needed to improve provision of credit services to small scale dairy farmers							
FACTOR	1	2	3	4	5	t-test	
Improve infrastructure to ensure proximity to them	0%	30%	0%	20%	50%	13.077	
Improve information communication technology	0%	20%	0%	30%	50%	15.735	
Link operating a savings account to getting approval to loans	0%	0%	0%	40%	60%	40.929	
Educate farmers on need for the loans	0%	0%	0%	70%	30%	40.901	
Educate farmers on associated costs of loans	0%	30%	30%	10%	30%	*11.350	
Cost of credit administration	0%	10%	30%	40%	20%	17.920	
Information communication technology in use by credit provider	0%	10%	30%	50%	10%	19.615	
{This section examined suggested measures needed to improve accessibility of credit by farmers. Scaling was done by giving a score of 1 to 5, 5 being the most important and 1 being the least important. (95% Confidence Interval of the Difference, p<0.05)}							

LIMITATIONS OF THE STUDY

The sample used in the study was strictly selected from the target population of small scale dairy farmers and lending institutions within Trans Nzoia County. The results of the study was thus only limited to the factors affecting loan and credit services to small scale dairy farmers among the small scale farmers of

Trans Nzoia County. The results cannot be generalizable to all other dairy farming regions in Kenya. However, it is appropriate that all small scale dairy farmers within the developing world stand equal chances as beneficiaries of the results from this study, but due to constraints of absence of transfer of generalizability of the results of the study, this study is

therefore was only limited to lending institutions and small scale dairy farmers in Trans Nzoia County.

DISCUSSION OF FINDINGS

The study findings and discussions concurs with [6] sentiments that financial intermediaries have not been able to accommodate small-scale rural farmers because it is risky, costly and a difficult task associated with high transaction costs. Most small scale dairy farmers in Trans-Nzoia county have not able to access credit services for a longer period now. Majority of them claim to shy away from these financial institutions for fear of their applications being rejected. Others have linked their low income level as the main reason why it's so hard for them to access these credit services. Also noted are Poor roads which makes it hard for them to access financial institutions and the vice versa. Literacy level has also been linked to the understanding of how credit services operate. Low literacy level tend to affect most farmers since majority rely on speculations in seeking credit services since they do not have the command to interpret and internalize the terms of service being issued by the banks on loans. This misunderstanding has made some farmers to shy off for fear of defaulting payments.

On the other hand, Credit providers have acknowledged their poor penetration level in the country since most farmers are located in very remote areas hence making it hard to reach them with information on credit services. Overproduction has also been linked to low dairy farming practice as main source of income by most farmers. Considering the area is dominated by farmers, the demand for milk within the area has been low hence without enough resources and systems in place it is very hard for these farmers to produce milk in large quantities for sale. Credit providers have indicated the only way to improve credit accessibility is through improving infrastructure in the area, embrace ICT development in order to reach out to more farmers in remote areas with information on credit services and lastly to come up with products friendly enough to the financially weak small scale farmers in the area including the dairy farmers. These sentiments were also earlier echoed by [6] who had stated "lack of information prevented large formal lenders who had capacity to serve the small farmers and the poor from doing so".

CONCLUSION

The study clearly concluded that there was significance in determining factors that affect credit accessibility by small scale dairy farmers in Trans-Nzoia County. The analysis of the study concluded the following factors to be influencing small scale dairy farmers decision in seeking credit services; (i) Poor financial status by most farmers, (ii) Lack of proper information on credit services hence relying on

speculations, (iii) High interest rates keep off these farmers, (iv) Poor infrastructure making most credit providers not to access farmers in remote areas, (v) low milk yield by most farmers hence getting little returns from the milk sales.

The study also concluded lending procedures by financial institutions as a factor affecting borrowing characteristics of small scale farmers in the county as a result of low literacy level of the farmers and poor information flow by credit providers to the farmers. Lastly, collateral requirement was identified as a contributing factor which that influenced the borrowing behavior of most small scale dairy farmers in the county. It is clearly evident that farmers with low value collateral shied away from financial institutions for fear of their applications being rejected.

RECOMMENDATIONS

Therefore based on the conclusions made by this study on factors affecting credit accessibility by small scale farmers in Trans-Nzoia County, the following recommendations have been made; there is need by financial providers to lower interest rates since there are too high for most small scale farmers to afford repaying them. There is need to improve infrastructure so as to make credit providers reach out to those farmers located in remote areas of the county. There is need to create enough affordable and profitable expo-market for dairy products so as to allow most of these small scale dairy farmers work towards increasing their milk yield for sale which include accessing credit services.

There is also a need to create a system that will allow proper information flow on credit services to these farmers hence denying them a chance to rely on speculations. There is need to improve on communication system to allow low literate farmers to interpret easily the lending procedures by financial institutions hence as a result improving on their borrowing characteristics. Credit providers need to be more innovative and provider alternative collateral that are of value and easily accessible by these small scale farmers hence in the process encouraging them utilize credit services.

REFERENCES

1. Republic of Kenya; Sessional Paper No. 2 of 2005: Development of Micro and Small Enterprises for Wealth and Employment Creation for Poverty Reduction. Nairobi: Government Printer, 2005.
2. Francis O; The Factors that Affect Accessibility to Credit Services by Small Scale Sugarcane Farmers in Kenya: A Case of Bungoma County, Kenya. *Developing Countries Studies* 2015; 5(5).

3. FAO. (2015). Small-scale dairy production: a way out of poverty. Retrieved from Food and Agriculture organization of the United Nations.
4. Hollinger F; Financing term investments in agriculture: A review of International Experiences, Paving the Way Forward for Rural Finance:. An International Conference on Best Practices Case Study, 2003.
5. Bucheneau J; Innovative Products and Adaptations for Rural Finance”, Paving the Way Forward for Rural Finance: An International Conference on Best Practices Case Study Capland and Nelson —E-commerce: the next global frontier for small businesses. *The Journal of Applied Business Research*, 2003; 17(1): 87-94.
6. Okurut N; Credit demand and credit rationing in the informal financial sector in Uganda. Cornell conference on African Development and Poverty Reduction. *The Macro- Micro Linkage*, 2004.
7. Spio K; The Impact and Accessibility of Agricultural Credit: A Case Study of Small- Scale Farmers in the Limpopo Province of South Africa. Pretoria: Unpublished Phd thesis. University of Pretoria, 2002.
8. Kgowedi M.J; Factors distinguishing the choice of money lenders and non-money lenders in Moletji District (Limpopo Province). Working paper: 2002-07, University of Pretoria, 2002.
9. Kamau BN; Critical Factors That Affect the Accessibility of Credit Services By Small- Scale Tea Farmers. Nairobi: University of Nairobi, 2008.
10. Kimani P.K; Product strategy in the marketing of financial services. A survey of the commercial banking sector in Kenya. Unpublished MBA research Project, 2000.
11. David M.G; A survey of factors influencing demand for financial servicesl. Nairobi: Unpublished MBA research Project UON, 2007.
12. Thomas R; Agro industrialization, Globalization, and International Development: An Overview of Issues, Patterns and Determinants. Retrieved from Institute for agriculture and trade policy, 2015.
13. Cook ML, Chaddad; Agro-industrialization of the global agro-food economy: bridging development economics and agribusiness research, 2000.
14. FFTC (2015). Agricultural Research to Help the Small-Scale Farmer in Developing Countries. Retrieved from Jan Bay-Petersen Food and Fertilizer Technology Center for the ASPAC Region Taipei, Taiwan ROC, 1985-07-01.
15. Feder G, O'Mara G.T; Farm size and the diffusion of green revolution technology. *Economic Development and cultural change*, 1981; 30(1): 59-76.
16. Wiley online library. (2015). The Effect of Fertilizer On Risk: A Heteroskedasticity Production Function With Measurable Stochastic Inputs. Retrieved from Wiley online library: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8489.1985.tb00651.x/pdf>
17. IFAD. (2015). International Fund for Agricultural. Retrieved from All Africa: www.AllAfrica.com
18. Adams D; AfDB Policy Guidelines for the Rural Financial Sub-sector,” African Development Bank. AFB. Retrieved from 2001.
19. Bass J, Henderson K; Leasing: A New Option for MF Institutions, 2000.