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ASSESSING INFLUENCE OF STRUCTURED LOANS ON AGRIBUSINESS BORROWING AT FIRST COMMUNITY BANK, KENYA

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Abstract

Agribusinesses play a critical role in addressing the national goals of poverty eradication through increasing rural incomes, creating employment and guaranteeing food security. However, despite the contribution of the sector to the economy, agribusinesses in Kenya experience difficulties in acquiring credit from formal lenders. The study main objective was to assess the influence of structured loan on enhancing agribusiness borrowing at First Community bank in Kenya. The study hypothesized that loan price, repayment structure and credit risk mitigation framework influence agribusiness borrowing. The study adopted descriptive research design. A sample of 35 respondents was drawn from the target population using stratified random sampling method. A structured questionnaire was administered on the sampled respondents with the intent of collecting primary data. Both descriptive and inferential analyses were conducted. The study established that there exist a strong positive and statistically significant relationship between repayment structure and Agribusiness borrowing ($r=0.723$; $p<0.01$). Further findings revealed the existence of a negative and statistically significant relationship between credit risk mitigation and Agribusiness borrowing ($r=-0.774$; $p<0.01$). The study recommends seasonal repayment schedules matching cash inflows, freeing credit risk controls and lowering of interest rates on loan.

Keywords: Structured loans, Loan price, Credit risk mitigation, Loan repayment, Agribusiness

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INTRODUCTION

Agribusinesses are among the main sources of employment in a majority of the world's poor and developing countries. According to World Bank (2012) economic report, agribusinesses provide a share of up to 53% employment in developing countries, 60% in Sub Saharan Africa. In Kenya it contributes up to 80% plus to the Kenyan economy on a direct and indirect proportion. Through linkage with the sectors of manufacturing, distribution and other service related sectors agribusinesses indirectly contributes to approximately 27% GDP in Kenya. This accounts to 60-80% of the national employment mainly in rural areas, 60% of the export earning, and about 45% of the government revenue.

However, agricultural Sector in Kenya is characterized by lack of resources in terms of land, capital and labor. Unwillingness of lenders to provide adequate credit to finance agribusiness has been singled out as the most important limiting resource in rural enterprise development in Kenya. Studies indicate that, agribusiness borrowing has not progressed limiting the farmer's potential to contribute positively to the economy; this is despite the great concern by government and other formal credit providers initiatives to fund agribusiness(Heyer,2012).

According to Winn et al (2009) structured loans employ flexible financial engineering tools whenever the requirements of the lender cannot be met by an existing off-the-shelf product or instrument. In this regard lenders work around existing products and techniques to engineer the products into tailor made products or process meeting unique conditions of a borrower. Accordingly structured loans allow lenders adapt a flexible repayment structure best suiting farm conditions hence boosting demand for credit and inputs.

The approach of structured financing in agribusiness has proved that; loan defaulting can get lower if flexible repayment schedules are offered. The flexibility further results to increased productivity among the borrowers. This is because; the funds offer a broad range of financial products and instruments that allow loan structures be demand driven and adaptable to changing market conditions (Finnerty, 2013).

While discussing agribusiness borrowing, Ansari (2011) stated that structured loan collaterals are more dependent on the structure and performance of the transaction rather than the characteristics (e.g. creditworthiness) of the borrower. The financial strength of the agricultural produce buyer determines the credit awarded and not the farmer or seller of the receivables. This approach thereby shifts the risk from the farmer to the buyer.

Winn et al. (2009) purports that the lending bank can advances funds to a producer for working capital and investment finance through structured loan arrangements. In return, the bank is given an assignment of future receivables from the purchaser of the goods. Importantly, this assignment is acknowledged by the purchaser, who makes payments in line with the

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schedule in the commercial contact with the producer. The payments are credited to a collection account in the bank, from which they are transferred to a debt reserve account. At the loan repayment dates, money is taken from the debt service account, in line with the repayment obligations of the borrower.

Statement of the Problem

Credit to agribusiness is crucial in boosting agribusiness productivity and promoting adaption of modern farming technologies. However, the formal financial sector is reluctant to lend to agribusinesses, including upstream primary production, because of perceived high risk of the sector. Agribusiness operators on the other hand also perceive formal credit as inaccessible due to rigid terms and conditions. The demand side and supply-side credit constraints have resulted in a yawning financial gap within the formal credit market in Kenya. Increasingly therefore, many agribusiness entrepreneurs usually resort to informal sources of credit to finance their businesses. Unfortunately these informal credit services come as unreliable, costly, inefficient and very expensive. This presents a challenge due to the fact that, the country may not achieve its projected economic goals of job employment creation, food security and eradication of poverty. Therefore, given the crucial role of credit in enhancing the competitiveness of agribusinesses, especially in Value-adding activities it was fundamental to assess the use of structured loans on enhancing agribusiness borrowing at first community bank with the aim of coming up with recommendations to improve credit access for agribusinesses in Kenya.

LITERATURE REVIEW

Agribusiness like other investments requires affordable financing, part of which is done through credit funds from the financial institutions. The credit eligibility is assessed through established credit risk management frameworks. Maurer (2014) noted that, agriculture is often perceived as much riskier than other sectors, particularly by lenders who lack in-house expertise on agriculture. This lack of understanding leads to inflation of the risk on farm credit. As argued by Heyer (2012) commercial banks in Kenya have remained the most appropriate financiers to agribusinesses sector over a period of time; serving the supply side of credit as agribusinesses participates on the credit demand side.

In many developing economies agricultural production face a challenge of Credit constraints associated with imperfect information and imperfect enforcement. Several research findings indicate that numerous factors driving a percentage of potential farm borrowers out of the debt market result from market imperfections (Maurer, 2014). The imperfections discussed

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include high interest rate charged on farmers and formal lenders exercising monopoly power in credit markets. Other imperfections are; costly transaction fees incurred by farm borrowers, moral hazard and adverse selection problems. Bandyopadhyay (2007) noted that, as a result of the imperfections and costly information encountered between the lenders and the borrowers, rationing of credit is necessary to mitigate lending risk.

Financing agribusinesses in Kenya presents risks that vary in both likelihood and severity, but the risks are identifiable and possible to mitigate effectively. Langat (2013) observed that, unreliable rainfalls, fluctuating commodity prices and escalating price of farm inputs complicates faming risks. The findings Langat (2013) study established that, use of flexible loans with unique repayment terms from other conventional loans are among the many initiative Kenyan banks adapt to improve farm credit access. Adam et al. (2010) Opine that, major causes of farm lending problems are directly related to credit requirements for borrowers and counterparties, poor portfolio risk management and inappropriate repayments structure to loans.

Credit risk mitigation is the application of different strategies by lenders, banks and other business offering credit to control loss from default and promote credit demand. As discussed by Bandyopadhyay (2007) the practice includes risk based pricing, cost adjustment to the credit strength of the borrower; credit tightening and information management through technical assistance. Other techniques to minimize credit risk include; advisory services and literacy, diversification or increasing portfolio- mix of borrowers as well as purchasing credit insurance. Credit risk mitigation framework therefore provides for both internal protection from default risk and external security for borrowers' facilitation to limit default (Winn *et al.*, 2009). While lenders are quite familiar with the hazards of credit risk, and the related tools and techniques needed to assess and manage it in their portfolios, many are less prepared to deal with the myriad of agribusiness loan customer challenges (Maurer, 2014).

Katchova and Barry (2005) developed models for quantifying credit risk in agricultural lending by calculating probabilities of default, loss given default, portfolio risk, and correlations using data from farm businesses in India. The scholars showed that the calculated expected and unexpected losses under Basel II critically depend on the credit quality of the loan portfolio and the correlations among farm performances. They noted that analyses of portfolio credit risk could be further enhanced if segmented by primary commodity and geographical location.

Christopher et al. (2010) examined agriculture financing policies of the government of Nigeria. The study established that crucial efforts by government to make good agricultural policies through schemes, programs and institutions had not been backed up with adequate budgetary allocation. The researchers recommended the need for adequate level of strategically

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targeted investments in agriculture and upgrade of rural infrastructure to boost farm productivity competitiveness. Langat (2013) study claimed that agribusinesses experience difficulties in loan repayment as a result of business internal incapacities. Such challenges impact to profiling of farmers as high risk borrowers. It was deduced that, when loan repayment schedules cannot account for production specifics, financing agricultural projects using loans with fixed repayment schedules such fixed timely payments and amounts become difficult.

As noted by Finnerty (2013) fixed repayments on loans may pre-exclude projects with seasonal cash flows from financing by standard loans. The challenge hinders lending unless cash flow mismatches are smoothened by other sources of income of the entrepreneur. According to the researcher, the sole availability of standard loans explains why agricultural firms are frequently credit rationed. The scholars recommended the need of tailoring credit facilities to facilitate farm borrowing. Moreover, Maurer (2014) argued that, standard loans have the reason for the current urban focus of many lenders. The author noted that in most developing countries, rural areas economies are dominated by the agricultural sector; hence inability to offer adequate loan products targeting this group make lenders outreach less effective to an economy.

The study on commercial and subsistence farming in Kenya (Nyikal, 2005) deduce that, the credit market is not effective in supporting smallholder agribusinesses. This is so because lenders do not consider each lending case on its own merit. The findings indicated that personal factors and credits facility factors were significant determinants in loan defaults by small holder farmers. The study suggested an improvement of the credit market to tailor credit for farm befitting unique farm conditions to adequately support agriculture.

Ibrahim and Bauer (2013) investigated access to micro credit and its impact on farm profit among rural farmers in dry land of Sudan. The study further sorted-out factors that influence profits from farm businesses. The researchers surveyed 200 farm house holds selected through a multi-stage random sampling technique. Results of the study established that savings, value of assets and incomes were significant variables determining farmers credit constrains. The scholars suggested improvement of farm investment through increasing loan amounts farmers could access to promote agricultural productivity particularly the adoption of efficient and sustainable technology.

An investigation by Ansari et al. (2011) in Khorasan-Razavi Province of Iran established that loan interest rate was the most important factor affecting repayment of agricultural loans. The study also discovered that farming business experience, and total application cost as other crucial factors influencing loan performance. The research recommendations indicated that modalities to lower interest rates and other related costs to loans be adopted to improve the

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demand for farm credit. They argued that, bank transactional costs related to collateral could be reduced by externalization to third parties as the case with some collateral substitutes. Further, the research suggested that loan repayments schedules which matched agribusiness cash flows could promote farm credit demand.

Cash flows of most agricultural entrepreneurs are characterized by a high level of seasonality due to periodical mismatches between expenditures (planting season) and revenues (harvest). The study by Yegon et al. (2014) found that repayments failing at times when a farmer had not received proceeds from farm business subjected farmers into financial constraints. The findings noted that in some cases farmers sold key farm inputs to raise loan installments hence worsening their financial position. The study infers that, measures of lowering loan default should focus more on facility factors of installment timing and installment amounts rather than farming conditions.

Kinyua (2014) delved on lending policies and factors affecting access to credit by small-scale enterprises both in formal and informal lending institutions in Kenya. The study established that, loan rationing in the informal credit market was attributed to the limited resource base. For the formal sector, it was attributed to the lending terms and conditions. In conclusion the study noted that, informal credit sources provided easier access to credit facilities for small and microenterprises. This could be explained by the lending terms and conditions reflected in collateral, application procedure and repayment period offered by the informal lenders.

Mwakanemela (2014) quantitative study on challenges facing horticulture subsector in Tanzania to access credit, examined factors that make agriculture financing risky and the gaps that exists between farmers and financial institutions. Concurring with Heyer (2012), unpredictable weather, lack of collateral, absence of agriculture insurance, little farmer's education, infrastructure and fluctuating market prices were among factors noted to make agriculture financing risky. The study revealed that agriculture financing is an important catalyst in stimulating agricultural development to ensure food security in Tanzania.

Conceptual Framework

The conceptual framework outlines the presumed relationship between the independent variables and the dependent variable. As outlined in Figure 1, there are three independent variables which are loan price, loan repayment schedule and credit risk mitigation mechanism. On the other hand, there is one independent variable (agribusiness borrowing). The framework illustrates the hypothesized relationship between the aforementioned two sets of variables. That

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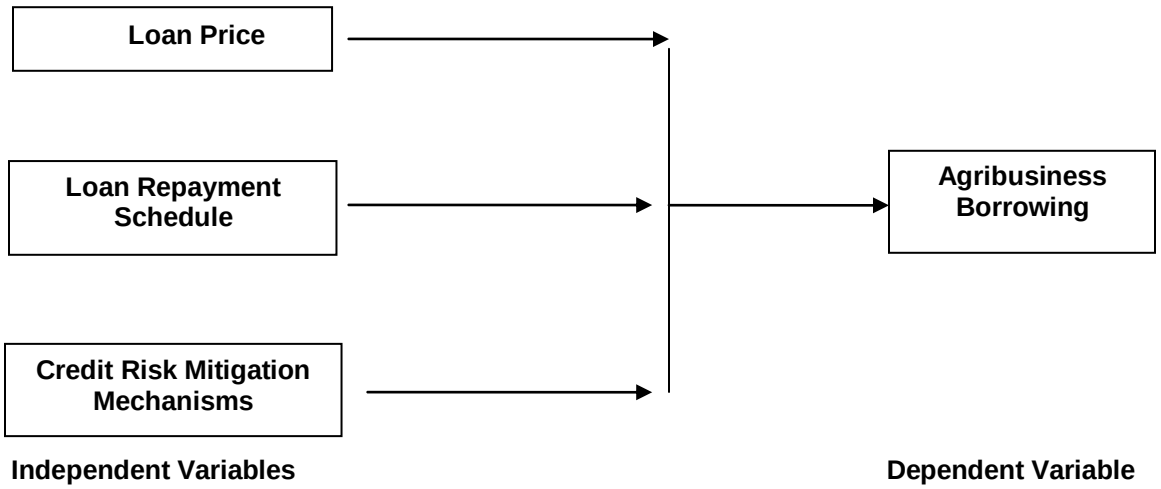
is, loan price, repayment schedule and credit risk mitigation mechanism are presumed to influence agribusiness borrowing at first community bank in Kenya.

Figure 1: Conceptual Framework



Objectives of the Study

1. To assess how price loan charged on structured loans affect agribusiness borrowing.
2. To establish whether structured loans repayment schedule has an influence on enhancing loan borrowing by agribusinesses.
3. To analyze the effect of credit risk mitigation mechanisms on agribusiness borrowing.

Research Hypothesis

H_{01}: Structured loan price does not have a significant effect on borrowing by agribusinesses.

H_{02}: The relationship between repayment schedule on structured loans and agribusiness borrowing is not significant.

H_{03}: Credit risk mitigation Mechanism on structured loans does not have an effect on agribusiness borrowing.

RESEARCH METHODOLOGY

The study adopted descriptive research design. Kothari (2004) describes descriptive research design as the most suitable form of describing phenomena, events and situations as was with this study. The target population was 87 staff of first community bank consisting of branch financing officers, branch managers and head office credit administration staff. Stratified random sampling was adopted on the reasoning that, the three afforested categories are relatively

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heterogeneous to pick a sample of 35 respondents. The three categories imply three strata. According to Mugenda and Mugenda (2003), a sample size of 30% is sufficient to represent a sample. This is illustrated in Table 1 below.

Table 1: Sampling Frame

Staff category	Targeted Population	Sample Size	Representation
Branch Financing Officers	33	14	42.42%
Branch Managers	18	6	33.30%
Head Office Credit Administration Staff	36	16	44.40%
TOTAL	**87**	**35**	**40.20%**

A set of structured questionnaires was used to collect data from the respondents. The research questionnaire was pilot tested prior to being used to the respondents in the final study with a10% of the target population who were randomly selected to participate exclusively in the pilot study. Cronbach alpha (α) was used to measure the reliability of the instrument and all variables returned alpha values at least equal to 0.7(α>0.7) and were as such considered reliable. Data collected was analyzed by the use of inferential statistics and presented through percentages and frequencies. The information was displayed by use of tables. Regression analysis was used to establish the influence of structured loans on agribusiness borrowing at First community bank in Kenya.

ANALYSIS AND FINDINGS

Descriptive and inferential statistics have been used to discuss the findings of the study. The study targeted a sample size of 35 respondents from which 34 filled in and returned the questionnaires making a response rate of 97.14 %, this response rate was satisfactory to make conclusions for the study as Cooper and Schindler (2003), states that a response rate of between 30 to 80% of the total sample size can be used to represent the opinion of the entire population.

Effect of Structured Loan Price on Agribusinesses Borrowing

The findings revealed that there exist a negative and statistically significant relationship between structured loan price and Agribusiness borrowing (r=-0.705; p<0.01).This means that as price on structured credit increases, the tendency of farmers to borrow loans decreases. The findings led to rejection of the first hypothesis which stated that structured loan price does not have a

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significant effect on borrowing by agribusinesses. This implies that the bank can increase agribusiness borrowing by reducing rates and other charges on structured loan.

Table 2: Correlations between Loan Price and Agribusiness Borrowing

		Agribusiness Borrowing
Loan Price	Pearson Correlation	-.705**
	Sig. (2-tailed)	.000
	N	34

** Correlation is significant at the 0.01 level (2-tailed).

Effect of Repayment Schedules on Enhancing Agribusinesses Borrowing

The findings of the analyzed data indicated that there exist a strong positive and statistically significant relationship between repayment structure and Agribusiness borrowing (r=0.723; p<0.01). In other words, agribusiness demand for structured loan increases as the modalities of repayment becomes much flexible. Measures such as matching installments payments with cash receivable, agribusiness cash flow patterns and provision given to adjust repayment terms when environmental conditions change have influence on Agribusiness borrowing. This therefore led to rejection of the second hypothesis which stated that structured credit repayment structure does not have a significant influence on enhancing loan borrowing by agribusinesses.

Table 3: Correlations between Repayment Schedule and Agribusiness Borrowing

		Agribusiness Borrowing
Credit Repayment Schedule	Pearson Correlation	.723**
	Sig. (2-tailed)	.000
	N	34

**. Correlation is significant at the 0.01 level (2-tailed).

Effect of Credit Risk Mitigation Mechanisms on Enhancing Loan Borrowing by Agribusinesses

The findings established that there exist a negative and statistically significant relationship between credit risk mitigation and Agribusiness borrowing (r=-0.774; ***p***<0.01). Interpretively, as the risks of structured loans increases, the rate of borrowing decreases. This means that most agribusiness may only be able to qualify for structured loans once they have sufficient collateral. In addition, if the risks associated with structured loan can be minimized borrowers will have ease in acquiring the loans. The findings therefore led to rejection of the third hypothesis that

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stated that Credit risk mitigation framework on structured credit does not have an influence on enhancing loan borrowing by agribusinesses.

Table 4: Correlations between Credit Risk Mitigation Mechanisms and Agribusiness Borrowing

		Agribusiness Borrowing
Credit Risk Mitigation	Pearson Correlation	-.774**.
	Sig. (2-tailed)	.000
	N	34

**. Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

Regression analysis was used to estimate the relationships among variable by analyzing the relationship between the dependent variable and independent variables. The multiple regression model with all three predictors produced $R^2 = .745$, $F(3, 30) = 29.19$, $p < 0.01$. This shows a good fit implying that 74.5% of variation in agribusiness borrowing is explained by loan price, loan repayment schedule and credit risk mitigation mechanism, While 25.5% of agribusiness borrowing is explained by variables outside the model.

The results indicate that there is a negative and significant (***p***<0.01) relationship between loan price and agribusiness borrowing. If loan price (X_1) increases by one (1) unit, taking all other things constant, borrowing declines by 0.363 units. Similarly, credit risk mitigation mechanism has a negative significant relationship (***p***<0.01) and agribusiness borrowing. Holding all other factors constant, increasing credit mitigation modalities by one (1) unit reduces agribusiness borrowing by 0.375 units. This implies that when credit risk increase on agribusiness loans, borrowing will decrease since lenders will be more skeptical to lend to farmers. Loan Repayment schedule has a positive significant (***p***<0.01) relationship with agribusiness borrowing. The effect of independent variables on the dependent variable is presented using the regression as shown below:

$Y= a_0+a_1X_1+a_2X_2 +a_3X_3+e$

Where:

	Y:	Agribusiness borrowing
	a_0:	Constant
	a_1, a_2 and a_3:	Coefficients to be estimated
X_1:	Credit price	
	X_2:	Repayment terms
	X_3:	Credit risk mitigation framework
e:	error term	

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Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863[a]	.745	.719	.76461

a. Predictors: (Constant), credit risk mitigation, loan pricing, credit repayment structure

$R^2 = .745$, $F(3, 30) = 29.19$, $p < 0.01$

Table 6: Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.280	.796		5.375	.000
	loan price	-.324	.101	-.363	-3.227	.003
	loan repayment schedule	.311	.135	.291	2.302	.028
	credit risk mitigation	-.381	.125	-.375	-3.039	.005

a. Dependent Variable: Agribusiness borrowing

CONCLUSION

It is acknowledged that interest rates on structured loans discourage borrowing; hence farmers may not achieve financial stability unless structures that constitute credit advancement are favorable. Additionally, fees and other charges on structured loans have been established to affect agribusiness borrowing negatively.

Credit risk mitigation framework is an important in safeguarding credit default; however measures taken have been established to have a negative effect on agribusiness borrowing. This is so because as perceived risks on loans increase lenders tend to require more collateral which farmers may not afford. Management decisions on default risk management have to be critically examined to eliminate adverse effects on agribusiness demand for structured loans.

The research established that demand for structured loan increases as the modalities of repayment becomes much flexible. This implies that adjusting repayment terms when farm conditions change, matching loan installments with agribusiness cash flow patterns and long credit periods enhances agribusiness borrowing. It is also deduced that seasonal repayments on loans increase the demand for credit by farmers.

RECOMMENDATIONS

Credit to agribusiness play a critical role in commercialization of farming and technology adaption by farmers which improves participation in economic growth. The study recommends that commercial banks adopt special arrangements for lending to farmers other than lumping

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them together with other borrowers. Borrowing terms given to farmers such as loan period, credit limits and interest rates need to be designed and determined according to the specific nature of the farming business, so as to enable farmers repay the loans as per schedule.

When the bank lowers rates and other charges on structured loans, more farmers will be willing to borrow from the bank. On the other hand, when the bank increases rate and other charges on the loans the demand for credit by farmers decreases. This implies that rate and other charges on structured loan affect credit demand in the bank hence lowering rates will increase agribusiness borrowing. This study therefore recommends that; the bank to review its borrowing rates and other loan fees with a view of cutting down any unnecessary charges which discourage borrowing.

Credit risk mitigation framework has an implication of limiting agribusiness borrowing from the bank. This is so because most farmers lack adequate collateral to secure loans. In order to increase agribusiness borrowing, the bank management can review strategies adopted to mitigate credit risk to a more flexible approach. For instance the bank can reduce the amount of collateral required to increase agribusiness borrowing. Further, the weight of financial statements on credit risk assessment can be reviewed since most farmers' lack financial proper records which have limited their borrowing.

On the issue of repayment period; Short credit period, fixed repayment time, regular loan installments and inflexible loan term have the implications of decreasing structured loan demand. Moreover, credit repayment period has an effect on installments affordability by farmers. In this regard therefore, seasonal repayment schedules, long credit periods and flexible loan terms do ease farmers cash flow constrains hence recommended to enhance agribusiness borrowing.

REFERENCES

Adam, C. Collier, P., & Ndungu, N. (2010). Kenya Policies for Prosperity Africa: Policies for Agricultural Output and Investment. Journal of Development Studies, 22, 503–539.

Ansari, Y., Gerasim, D., & Mahdavinia, M. (2011). Investigation of factors affecting efficiency and effectiveness of agricultural facilities from viewpoint of farmers and credit experts in 2009, Iran. African Journal of Agricultural Research, 6(15), 3619-3622.

Bandyopadhyay, A. (2007). Credit risk models for managing bank's agricultural loan portfolio.

Christopher, E. C., Lemchi, J., Ugochukwu, A., Eze, V. .., Awulonu, C., & Okon, A. (2010). Agricultural Financing Policies and Rural Development in Nigeria. Edinburgh: The 84th Annual Conference of the Agricultural Economics Society.

Cooper, D. R., & Schindler, P. S. (2003). Business research methods.

Finnerty, J. D. (2013). Project financing: asset-based financial engineering. John Wiley & Sons.

Licensed under Creative Common

Freeman, H. A., & Silim, S. S. (2002). Commercialisation of smallholder irrigation: the case of horticultural crops in semi-arid areas of eastern Kenya. In Private irrigation in sub-Saharan Africa. Proceedings, 22-26 October 2001, Accra, Ghana. (pp. 185-191). IWMI.

Heyer, J. (2012). Smallholder credit in Kenya agriculture.

Ibrahim, A. H., & Bauer, S. (2013). Access to micro credit and its impact on farm profit among rural farmers in dryland of Sudan. Global Advanced Journal Research on Agricultural Science, 2(3), 88-102.

Kinyua, A. N. (2014). Factors Affecting the Performance of Small and Medium Enterprises in the Jua Kali Sector In Nakuru Town, Kenya. Journal of Business and Management, 6(1), 5-10.

Katchova, A. L., & Barry, P. J. (2005). Credit risk models and agricultural lending. American Journal of Agricultural Economics, 87(1), 194-205.

Kothari, C. R. (2004). Research Methodology: Methods and Techniques. New Delhi, India: New Age International Publishers.

Langat, R. C. (2013). Determinants of lending to farmers by commercial banks in Kenya. Doctoral dissertation, University of Nairobi.

Maurer, K. (2014). Where is the risk? Is agricultural banking really more difficult than other sectors?. In Finance for Food (pp. 139-165). Springer Berlin Heidelberg.

Mugenda, O. M., & Mugenda, A. G.(2003). Research methods.

Mwakanemela, K. (2014). Challenges Facing Agricultural Sector in Accessing Credit from Financial Institutions The Case Study of Horticulture Subsector in Tanzania. International Journal of Emerging Trends in Science and Technology, 1(05).

Nyikal, R. A., (2005). Commercial and subsistence Farming: What is the future for smallholder Kenyan agriculture. African Science Conference Proceedings, (Vol.6. 591-596).

Winn, M., Miller, C., & Gegenbauer, I. (2009). The use of structured finance instruments in agriculture in Eastern Europe and Central Asia. FAO Agricultural Management, Marketing and Finance working document.

World Bank Group (Ed.). (2012). World Development Indicators 2012. World Bank Publications.

Yegon, J. C., Kipkemboi, J., Kemboi, J. K., & Chelimo, K. K. (2014). Determinants of seasonal loan default among beneficiaries of a state owned agricultural loan scheme in Uasin Gishu County, Kenya. Journal of Emerging Trends in Economics and Management Sciences, 5(1).

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