AGRIBUSINESS BORROWERS' OPINION ON COMMERCIAL BANKS' APPLICATION OF FORWARD INTEGRATION CREDIT RISK MITIGATION MECHANISMS (FICRMMS) IN GRANTING CREDITS

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ABSTRACT

The objective of this paper was to establish the agribusiness borrowers' opinion on commercial banks' application of Forward Integration Credit Risk Mitigation Mechanisms in granting credits to agribusiness firms. Exposure of borrowers to a heavy risk load, agribusiness role in credit and production market and inadequate information sharing between lenders and borrowers, necessitates lenders' optimization of borrowers' opinions on how the lenders apply the Forward Integration Credit Risk Mitigation Mechanisms (FICRMMs) in the design and provision of credit; in such a way that credit default is minimized, credit market is expanded; while the credit products are modeled to be more productive. In addition, the policies on borrowers in credit demand relationships and loan repayments, are designed limited involvement of borrowers-side; which not only disregards the credit demand side information, but also create a disconnect in a productive credit product market operations. There is therefore limited information on the credit risk mitigation effect on credit demand and credit productivity. Using descriptive cross- sectional research design; which is positivist in philosophical orientation, and obtaining data from 43 agribusiness firm managers from the Western Kenya region, it was established that the borrowers' opinion on the application of FICRMMs' had an aggregate mean of 2.478; depicting that in the Agribusiness borrowers' opinion, the commercial banks demonstrate average application of the mechanism. The ANOVA of the Borrowers' opinion factors on the banks' application of Forward Integration Credit Risk Mitigation Mechanisms (FICRMMs) reveal, $F(42, 5) = 31.710$, $p = .000$, $MS_{error} = 32.167$, $\alpha = .05$. Hence, null hypothesis H_0 that borrowers' opinions have no effect on commercial banks' application of FICRMMs in granting credits is rejected and alternative hypothesis H_1 that borrowers' opinions have effect on commercial banks' application of FICRMMs in granting credits is accepted.

Key Words: Borrowers' opinion, Forward Integration Credit Risk Mitigation Mechanisms, Credit demand

1.0 INTRODUCTION

Every product market operates on the basis of information flow between the product demand and supply sides [25]. He asserts that the borrowers' opinions on credit granting frameworks significantly influence the credit product design and default control. Commercial banks' issuance of credits to any sector, including the agribusiness sector is reminiscent of market place operation; requiring management of information flow; in such a way that it defaults are reduced and product quality is enhanced making it productive for both lenders and borrowers [1]. They further underscore the critical position of the borrowers' opinion in not only designing credit lines and product nature, but also recovery schedules that reduce defaults. [9], in a review, conclude that for the commercial banks to enhance lending performance through increased mobilize deposits, they need to secure the borrowers' opinion on general credit portfolio performance; so as to guard against default. Therefore borrowers' opinion is a critical determinant in granting credit to the various sectors.

2.0 Literature Review

[12], state that credits are significant components in the capital structure and business returns; owing to

the fact that it gives the business an opportunity for tax relief and reduces the taxable profits, since the interest on the debt used in business is often tax deductible. This is fundamentally so in the growth stages of businesses as is reminiscent of most of the agribusiness firms in Kenya and South Saharan Africa (SSA) regions at large. [15] assert that traditional capital structure studies that ignore debt heterogeneity miss a substantial fraction of capital structure variation; hence failing to distinguish key sectoral requirements. [11], states that agribusiness as a vehicle for enhancing agricultural productivity, sustainability and adaptability, through focused investment into small medium and large scale agribusiness enterprises, has been gradually shaping up agricultural practice in Kenya. The sector indirectly contributes approximately 27% of the GDP through linkages with related sectors, 60% of the export earning, and about 45% of government revenue [21]. Agribusiness being an innovative means of mitigating common agricultural sector-risks, it requires critical bi-partisan approach between the borrowers and lenders to spur its development [4]. The Kenya National Economic Surveys of 2007 - 2012 emphasises agribusiness' need for funding; a reasonable part of which comes from commercial banks' credits. Since credits form part of business capital, the commercial banks share in its provision remains critical. However the banks' share of credits to the sector between 2003 and 2012 shows a decreasing trend from 6.5% to 2.9%; despite the fact that the sector's contribution to the Kenyan GDP has for the same period shown an increase between 1.8% and 6.9%.

[20] asserts that commercial banks remain the most appropriate financiers to the agribusiness sector by serving the supply side of credit as the agribusinesses participate on the credit demand side. He further asserts that agribusiness is a main source of employment in a majority of developing countries; in which it accounts for up to 53% employment in developing countries, 60% in South Saharan Africa (SSA), and over 80% plus to the Kenya directly and indirectly. [2], on techniques of Credit Risk Mitigation, states that 'Banks may use various techniques, which reduce their exposure to individual customers and transactions. [24], states that commercial banks 'credit risk management is modeled on six key practices; which are, character, capital, collateral, capacity, cost and condition (6Cs), which mainly focus on the borrower based roles. [14] explain that the credits process is a triple tier operation (i.e. credit allocation, credit investment and recovery), which requires the consolidation of both

the lenders and borrowers relationship; since credit risk management has previously been analysed in a skewed manner in favour of the banks, thereby leaving the borrowers adversely exposed to a heavy two- tier 'risk load'. Abrahams,

[5], observe that effective credit risk management must draw from both the lenders and the borrowers side parameters, so as to promote credit providers' returns and ensure borrowers' profitability. This puts in to the management framework a balance for controlling default and expanding credit access for investment by the lenders. For [10], states that although different sectors of the economy present varying credit risk levels, whose causes are also diverse in nature, limited information sharing between lenders and borrowers requires some intervention. This cannot be assumed given the role the borrowers of different sectors on lenders' success, profitability and sustainability. [6], argues for need to assess and employ borrowers' opinions in determining credit risk mitigants directed to specific sectoral factor requirements. The exposure of borrowers to a heavy risk load, and their central role in credit market and inadequate information sharing between lenders and borrowers requires the lenders to optimize on borrowers' views on credit utility in their effort to minimize default and expand their credit market. The contrast of the facts that policies on borrowers in credit demand relationships and loan repayments are designed by the commercial banks with limited involvement of borrowers, while the previous skewed credit risk mitigation's positive effect on credit demand is unknown, while literature points to the fact that failure to engage the borrowers may only aggravate probability of default, it is necessary for credit granting institutions to comprehensively engage the borrower side more productively, and to share their opinion in designing credit policies, and also in a systematic implementation and evaluation of their credit operations.

Commercial banks as agents of this process provide a liquidity backstop for systemically important credit markets, and the shadow banking system that is deeply integrated with these markets to enhance both lenders' and borrowers' profits. [7], state that Credit risk management is very vital, not only to measure and optimize the profitability of banks, but also for borrowers' profitability. They recognize that the capacity of the borrowers to repay the loans arise from their profits partly generated through credit finance, while [3] explains that the long term success of any banking institution depended on effective

system that ensures repayments of loans by borrowers which is critical in dealing with asymmetric information problems, thus, reduces the level of loan losses. Borrowers therefore rely upon credits to build their capital base [19], which [17] attributes to enhancing business financing, to trigger real business incomes. [8], states that corporation managers commonly analyse trade-off between inherent risks and expected outcome, rather than the actual returns. The critical role of the borrower business profits in the repayment of the loans, whose grant is a function of the Forward Integration Credit Risk Mitigation Mechanisms, and the fact that growth stage is financed through debt to help realise faster growth, given that credit risk management affects both the borrowers' and lenders' profitability, makes it necessary to determine the effect of credit risk mitigation mechanisms on the performance of agribusiness firms, with respect to profitability, Return on Equity, growth in capital employed.

[16], established that credit risk management has significant impact of profitability of banks as lenders, and subsequently asserts that this condition arises from increased loans and advances to the borrower firms resulting into borrowers' capital growth, Return on equity and Profit after tax. [18], concludes that the borrower- side management is mandatory for survival and growth of the credit market. However a majority

of the literature does not relate to specific sectors' performance measures; and are commonly analysed on the basis of expected rather than actual firms' return. [23], in his study of Imperfect Information, Social Capital and the poor access to credit, found that well documented interrelations between the lender and borrower and quality between lender and borrower organisations as important in credit risk management, borrower business returns, productivity and sustainability. He says that determination of the influence of credit risk mitigation mechanisms of capital growth given reveals the borrowers' deeper investment potential, while for the lender, it shows the credit market potential.

3.0 Methodology

This study used descriptive cross- sectional research design; which is positivist in philosophical orientation. Data was obtained from 43 agribusiness firm managers from the Nyanza region for the period spanning 2003 to 2013. Sampling from a target population of 183 registered agribusiness firms; using stratified random sampling method 45 firms were selected. However 43 firms returned the fully filled questionnaires. Descriptive statistics has been used to explain the output; based on the assigned values on the Likert scale scores; in which the elements are assigned rank numbers 1 – 5; where 1 is best score and 5 is worst score.

4.0 Results and Discussions
Table 4.1 ANOVA for Agribusiness borrowers' opinion on implementation of FICRMMs

		Sum of Squares	Df	Mean Square	F	Sig
Between People		74.432	42	1.772		
Within People	Between Items	461.123	14	32.937	35.325	0.000
	Residual	545.312	562	0.944		
	Total	1006.444	598	1.683		
Total		1080.876	631	1.713		
Grand Mean = 2.076						

Source: Research Data 2013

Table 4.1 reveals that the borrowers' opinion on the application of Forward Integration Credit Risk Mitigation Mechanisms (FICRMMs) had an aggregate mean of 2.076; depicting that in the Agribusiness borrowers' opinion, the commercial banks demonstrate more than average application of the mechanism in granting credits to the agribusiness sector. The ANOVA of the Borrowers' opinion factors on the banks' application of Forward Integration Credit Risk Mitigation Mechanisms (FICRMMs) reveal, $F(42, 14) = 35.325$, $p = .000$,

$MS_{error} = 32.937$, $\alpha = .05$. Hence, null hypothesis $H_{0,}$ that borrowers' opinions have no effect on commercial banks' application of FICRMMs in granting credits is rejected and alternative hypothesis H_1 that borrowers' opinions have effect on commercial banks' application of FICRMMs in granting credits is accepted.

Components' contributions of the agribusiness borrowers' opinion on the basis of the separate factors' mean scores and Analysis of Variance

(ANOVA) revealed the following results for each of the opinion based factors; that is, Credit Portfolio Diversification, Credit Information Management, Credit Technical Assistance and Credit Insurance.

The findings confirm the views by [1], [9] and [25], and place a critical premium to borrowers' opinion in not only designing but expanding credit demand frameworks.

Table 4.2 ANOVA for Credit Portfolio Diversification

		Sum of Squares	Df	Mean Square	F	Sig
Between People		76.524	42	1.822		
Within People	Between Items	493.157	14	35.225	37.304	0.000
	Residual	555.243	588	0.944		
	Total	1048.4	602	1.742		
Total		1124.924	644	1.747		
Grand Mean = 2.4775						

Source: Research Data 2013

The ANOVA output in Table 4.2, gives a grand mean of 2.4775, which interprets to mean fair contribution of the examined to credit portfolio diversification factors; as a mechanism of mitigating credit risk. Analysis of Variance reveal a reliable effect of other factors on Credit Portfolio Diversification X, F (42, 14) = 37.304, p = .000, MS_{error} = 35.225, α = .05. Because the p value associated with the F ratio is less than α level, then the study rejects the null hypothesis that all the means are equal. In this case, the p value equals 0.000, which is less than the α level (.05),

which gives a sufficient condition for rejecting the null hypothesis H_0, that credit portfolio diversification does not have significant contribution in granting credits to the agribusiness sector; and accepting alternative hypothesis H_1 that credit portfolio diversification has significant contribution in granting credits to the agribusiness sector. However the examined parameters should be synchronized in line with the significant ones so as to improve their functional responsiveness.

Table 4.3 ANOVA for Information Management

		Sum of Squares	Df	Mean Square	F	Sig
Between People		109.501	42	2.607		
Within People	Between Items	418.208	14	29.872	36.701	0.000
	Residual	478.592	588	0.814		
	Total	896.8	602	1.490		
Total		1006.301	644	1.563		
Grand Mean = 3.2543						

Source: Research Data 2013

Subsequently the aggregate analysis outcome of all the examined factors in Table 4.3 provides a mean of 3.2543, which implies that in the borrowers' opinion the application of the information management parameters by the commercial banks is ranked as fairly significant. The results therefore reveal that in the borrowers' opinion, information management factors have not been effectively applied so as to realise their maximum contribution as credit risk mitigants. The one-way, between-subjects analysis of variance reveal a reliable effect of other factors on Information Management Y, F (42, 14) = 36.701, p = .000, MS_{error} = 29.872, α = .05. Because the p value associated with

the F ratio is less than the α level, then the study rejects the null hypothesis that all the means are equal. In this case, the p value equals 0.000, which is less than the α level (.05), which gives a sufficient condition for rejecting H_0, that credit information management factors are not significantly applied by the commercial banks in granting credit to the agribusiness sector, and accept H_1 that credit information management factors are significantly applied by the commercial banks in granting credit to the agribusiness sector.

Table 4.4 ANOVA for Credit Technical Assistance

	Sum of Squares	Df	Mean Square	F	Sig

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		Sum of Squares	Df	Mean Square	F	Sig
Between People		144.865	42	3.449		
Within People	Between Items	282.505	14	20.179	22.335	0.000
	Residual	531.228	588	0.903		
	Total	813.733	602	1.352		
Total		958.598	644	1.489		
Grand Mean = 3.4682						

Source: Research Data 2013

Table 4.4 reveals that the grand mean for the agribusiness borrowers' opinion on the commercial banks' application of technical assistance mitigation mechanisms was 3.4682. This interprets to mean low application of the Technical Assistance parameters in granting credits to the agribusiness firms. The one-way, between-subjects analysis of variance reveal a reliable effect of other factors on Technical Assistance U, $F(42, 14) = 22.335$, $p = .000$, $MS_{error} = 20.179$, $\alpha = .05$. Because the p value associated with

the F ratio is less than the α level, then the study rejects the null hypothesis that all the means are equal. In this case, the p value equals 0.000, which is less than the α level (.05), which gives a sufficient condition for rejecting H_0, that technical assistance does not significantly influence commercial banks provision of credit to the agribusiness firms, and instead accept the H_1, that technical assistance significantly influence commercial banks provision of credit to the agribusiness firms.

Table 4.5 ANOVA for Credit Insurance

		Sum of Squares	Df	Mean Square	F	Sig
Between People		65.034	42	1.548		
Within People	Between Items	118.075	12	9.840	9.056	0.000
	Residual	547.617	504	1.087		
	Total	665.692	516	1.290		
Total		730.726	558	1.310		
Grand Mean = 3.3596						

Source: Research Data 2013

Table 4.5 provides the grand mean for the contribution if Credit Insurance mitigation parameters to agribusiness grant of credit was 3.360. This interprets to mean average contribution of credit insurance to performance of agribusiness borrowers.

These observations reveal that the credit consumers' views on the application of the various operational techniques of the four forward integration credit risk mitigation mechanisms is majorly an average contribution. This may have two interpretations; i.e. that the borrowers have not been able to critically analyse the credit-demand side factors, or the commercial banks have not employed the credit-demand side factors in a progressively productive manner to the agribusiness borrowers (Giuliano,

2012). The analysis of variance reveal a reliable effect of other factors on Credit Insurance W, $F(42, 14) = 9.056$, $p = .000$, $MS_{error} = 9.840$, $\alpha = .05$. Because the p value associated with the F ratio is less than the α level, then the study rejects the null hypothesis that all the means are equal. In this case, the p value equals 0.000, which is less than the α level (.05), which gives a sufficient condition for rejecting H_0, that the commercial banks do not significantly employ Credit Insurance in granting credits to the agribusiness sector H_1 is accepted; that the commercial banks significantly employ Credit Insurance in granting credits to the agribusiness sector.

5.0 Conclusion

Borrowers' opinions on the application of the Forward Integration Credit Risk Mitigation Mechanisms (FICRMMs) have significant contribution in commercial banks' consideration to grant credits to the Agribusiness sector. Whereas the aggregate opinion factors' outcome post high contribution, opinions on credit portfolio

diversification, credit information management and credit technical assistance demonstrate fair contribution. However, opinions on Credit Insurance reveal low contribution to the grant of credits to the Agribusiness sector.

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