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Credit Processing Period and Financial Performance: Empirical Evidence from Agribusiness Small and Micro Enterprises in Nyeri Central Sub County Kenya

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Abstract: ***Agriculture is the mainstay of Kenyan Economy. One of the key players in the Sector is Agribusiness small and micro enterprises (SMEs). These SMEs play a critical role in provision of employment in emerging economies like Kenya. Access to finance is critical to growth as well as development of small and micro enterprises (SMEs). Most of the SMEs rely on commercial banks for financing of their enterprises. Inadequate access to finance could limit growth as well as development of these institutions. This study aimed at investigating the effect of credit processing period on financial performance of agribusiness small and micro enterprises in Nyeri Central Sub County. The study adopted credit rationing theory. The target population of this study was 950 licensed Agribusiness SMEs in Nyeri Central. A sample size of 274 licensed SMEs operating in the Nyeri Central Sub County was chosen by the use of the Krejcie and Morgan's criterion. A pilot study was done and a Cronbach alpha coefficient of 0.7 was used to evaluate the reliability of the semi-structured questionnaires. A response rate of 86.5% was achieved.. Regression assumptions of linearity, independence and normality were done. Results were interpreted using 5% level of significance. Bivariate Linear regression analysis results indicated that there was a negative and statistically significant linear relationship between credit processing period and financial performance of Agribusiness SMEs..The study recommends that the period it takes to process credit should be reduced in order to enhance performance of Agribusiness SMEs. In addition, Agribusiness SMEs should maintain all relevant financial records and books of accounts required and prepare final accounts to fast track credit processing. The overall effect of this might be enhanced financial performance.***

Keywords: Credit Processing Period, Financial Performance, Agribusiness Small and Micro Enterprises

1. Introduction

1.1 Background of the study

The access of finances has been viewed as an obstacle to financial performance of small and micro enterprises. According to Levy, (2015) the challenge to finances hinders growth as well as development of these institutions. The reduced SMEs sector credit bring about slow economic growth that is constrained, which means that the state would not be capable to attain the 6.0 percent rate of growth anticipated for 2016 (Rutendo, 2016). The latest data indicate that bank lending to small and medium-sized enterprises has declined by 5.7% between August 2016 to April 2017, the reason being that SMEs are considered among the riskiest category of borrowers by commercial banks because of their high level of failure after startups (Mwaniki, 2017). There has been an increase of SMEs in the agricultural sector. This is a positive direction for the economy because agriculture is the backbone of the Kenyan economy, contributing about 24% of the GDP directly and another 27% indirectly. Agriculture is the livelihood of majority of Kenyans, providing income to more than 80% of population and employing an average of 40% (UNEP, 2015). Agriculture SMEs are often seen as unattractive clients to most financial institutions, this is due to their small asset base and their seasonal nature (IFC, 2011). The economic survey of 2017 established that there were about 1.56 million licensed SMEs and 5.85 million unlicensed businesses. The importance of small and medium-sized enterprises in Kenya was reflected in the Economic Survey in 2014, which signified that 80 percent of the 800,000 created jobs in 2014 were in the informal sector which is dominated by small and medium-sized enterprises.

Finance access is critical to growth as well as development of SMEs and finance availability is related positively with financial performance. Nevertheless access to finance remains a limitation to the SMEs especially in emerging economies (GFPI, 2011). The World Bank Enterprise Surveys reveal that on average 43% of SMEs in the emerging economies have constraints to the access of Finance, while it is lower for the developed countries with only 11% of SMEs rated access to finance as a constraint.As per the Nyeduko, (2014) finance is the life blood of every business, it does not matter how well a business is ran and managed, if it does not have sufficient capital for investment of fixed assets, working capital, skilled employees employment and new products and markets development then business would not perform. Statistics state that three out of five SMEs drop out of business after some months of operation (Kenya National Bureau of Statistics, 2007).The main problem for SMEs is that they do not have a good mechanism in place for collection of credit which is able to carry out regular activity of credit control as well as follow up issues of going-concern. Therefore, bad debts might have

a more remarkable impact on SMEs who have a small capital base compared to larger businesses (Ryan, 2014).

1.2 Statement of the Problem

SMEs are the backbone to an emerging economy like Kenya as they provide about 45% of employment in economies like Kenya (OECD, 2017). When the Agribusiness SMEs do not financially perform well, they are not able to provide the general public with the needed goods and services. Oketch (2007) performed a research on sixteen financial institutions to establish the demand and supply of credit to the sector of SMEs. This research showed that the demand and supply for credit have been on the rise ever since 1991. It's obvious that majority of the SMEs are not able to meet the required conditions by financial institution like the required collateral and this leads to limited access to finance (Kihimbo, 2012). Another challenge faced Agribusiness SMEs when attempting access to credit is information asymmetry. This is because they are not able to prove the value and quality of their investment projects to the financial institutions. Similarly, some of the Agribusiness SMEs are not enlightened in keeping proper books of accounts and therefore they are not able to give credible financial information to the financial lenders. According to Oketch (2007) demand for information asymmetry and collateral from SMEs is only met by a small percentage of the SMEs. There is a possibility that due to this, there arises a delay in credit processing period. The effect of this is that the Agribusiness SMEs will have limited access to funds from Lender. This research evaluated the effect of credit processing period on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.

1.3 Objectives

The objective was to evaluate the effect of credit processing period on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County.

2. Literature Review

2.1 Credit Rationing Theory

One of the most important theories that focused on financing gap analysis is the Credit Rationing Theory by Stiglitz & Weiss (1981). Stiglitz and Weiss (1981) argued that information asymmetry is one of the reason why SMEs have constrained access to finance. They argued that only SMEs know their real financial structure, the real strength of the investment project and the effective intention to repay the debt, that is, firms have superior private information (asymmetric information). Hence, the bank manager makes decisions under asymmetric information, and operates under a moral hazard and adverse selection risk. Stiglitz and Weiss (1981) explained the choice among different financing sources under conditions of asymmetric information and credit rationing. Asymmetric information can lead to credit rationing conditions by modifying the risk-return distribution; this fact encourages banks to refuse capital for investments and produces divergence between capital demand and supply (Alfo & Trovato, 2006). Constrained access to finance derived from financial institutions' credit rationing behavior might not be efficient because managers work under conditions of asymmetric information.

This may result in less profitable investments getting financed while more profitable investments are being left out and thus resulting in adverse selection and moral hazard risks. Therefore, asymmetric information can explain asymmetric of credit among firms with identical characteristics, the lenders not being aware of the exact bankruptcy likelihood for the firms, know only that this likelihood is positive and therefore choose to increase debts' cost. Start-up small firms are more likely to be affected by information asymmetry problems. Deakins, North,Baldock and Whittam (2007) argued those information asymmetries are more acute in new and technology-based propositions. They argued at an early stage, information is limited and not always transparent and assets are often knowledge based exclusive associated with the founding entrepreneur. Especially with manufacturing and technology based firms, entrepreneurs may be reluctant to provide full information about the opportunity because of concerns that disclosure may make it easier for others to exploit. There are some categories of SMEs that will face additional problems due to lack of security, such as young entrepreneurs or those from deprived areas. In addition, there may be asymmetries arising from location as well as sector. For example, owners of SMEs in rural environments may face difficulties with access to bank finance. Small firms are more likely to be rationed because they are viewed as particularly risky. According to Atieno, (2008) also pointed out that access to credit by borrowers is affected mainly by credit rationing behavior of lending institutions who used descriptive statistics to analyze the role of institutional lending policies of formal and informal credit institutions in determining access to and uses of credit facilities by small-scale entrepreneurs in Kenya.

2.2 Credit Processing Period and Financial Performance of Agribusiness SMEs

Oketch (2007) performed a research on sixteen financial institutions to establish the demand and supply of credit to the sector of SMEs. This research showed that the demand and supply for credit have been on the rise ever since 1991. Most of the conditions required by financial institutions like guarantee prerequisites should not really restrain Agribusiness SMEs and the poor in acquiring credit (Atieno, 2008). The prerequisites are required at the initial stages of credit application from commercial bank; therefore this means that the processing of the credit does not go on without the fulfillment of the requirements.

Accessing funding from financial institution in form of credit isn't easy and particularly within a short notice in case of an urgent situation. In line with a survey carried out by Central Bank of Kenya (CBK, 2016), the period of funding has actually been increased, this is because the SMEs are categorized as high risk borrowers. There are also hidden charges that make the funding very expensive for Agribusiness SMEs.

According to Sengupta's (2011) financial institutions not only rely on an SMEs creditworthiness to extend finance but

also get information from other investor which create trust. Additionally, networks with financial lenders, connections with other businesses and enterprises relations as well assist in the promotion of access to financial services (Atieno, 2008). Bearing in mind that the SMEs are classified as high risk borrowers; financiers take time to evaluate these networks and this leads to delays credit processing. According to Oketch (2007) demand for information from SMEs is only met by a small percentage to the SMEs requirements due to the various factors like lack of adequate collateral, information asymmetry. These requirements cause a delay in credit processing period and affect most Agribusiness SMEs financial performance. These delays in funding reduce the performance of Agribusiness SMEs.

When the Agribusiness gets good networks the financial lender would have trust in lending the SME and the funding would not be delayed causing the financial performance of the SME to improve and hence profitability. Also problems of cash liquidity become eliminated.

2.3 Conceptual Framework

The conceptual framework of the study is presented in Figure 2.1 it is an indicative of the Effects of Credit Processing Period on Financial Performance of Agribusiness Small and Micro Enterprises in Nyeri Central Sub County Kenya.

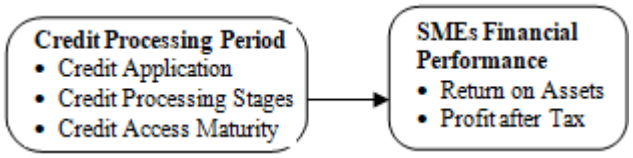

Figure 2.1: Conceptual Framework

3. Research Methodology

The researcher adopted a descriptive research design to conduct the research. According to Cooper & Schindler (2011), descriptive research design defines people, questions, surveyed as well as the analysis method before the start of data collection. Therefore the research focuses on what is' the effects of the credit processing period on the financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya.The study targeted licensed SMEs owners in the Agribusiness sector in the Nyeri Central Sub County. According to Nyeri County records for 2014 there were 950 licensed Agribusiness SMEs in Nyeri Central Sub County. The researcher used stratified sampling to select a sample size for the study. A stratified sampling technique was undertaken by dividing population in strata representing agro vets, Open air Market hawkers, Poultry farmers, Cattle farmers, Goat farming. Sample size proportions were arrived at by determining 29% of the target population from each of the SMEs category as depicted in table.

Table 3.1: Sample Size Classified in Stratas

Agribusiness SMEs Group	Target Population	Sample Size
Agro vets	97	28
Open air Market hawkers	396	114
Poultry farmers	203	58
Cattle farmers	99	29
Goat farming	155	45
Total	**950**	**274**

Sample size of 274 SMEs owners was considered adequate representation the entire population of the study. The study used a questionnaire as the primary data collection and secondary data tools. Questionnaires were used because they generate data that is straight forward and allows quick analysis (Wellington, 2000; Doodley et.al 2003,). The questionnaire was administered by the researcher and a research assistant. The researcher initially visited the sampled Agribusiness SMEs for introduction, familiarization and getting consent from Agribusiness SMEs to the study. Pilot survey was conducted in order to ascertain the data collection instrument reliability using Cronbach's alpha coefficient (α) threshold of 0.7 coefficient. The results of the reliability gave the alpha value of 0.794 which implies that data collection instrument was reliable and fit for the purposes of the study.

4. Research Findings and Discussion

4.1 Response Rate

The study targeted two hundred and seventy four (274) respondents operating small and micro enterprises in Agribusiness Nyeri Central Sub County Kenya. The response rate achieved by the study is 86.5% which was very good according to (Mugenda & Mugenda, 2003).

4.2 Descriptive Analysis for Financial Performance

Average Profit after was used to evaluate the performance of the SMEs in the Agribusiness in Nyeri Central Sub-County for the year 2013 to 2016.The findings were summarised in the Table 4.1

Table 4.1: Average Profit after Tax (Kshs in Millions)

Year	Minimum	Maximum	Mean	Std. Deviation
2013	-3.80	3.60	.2976	.61205
2014	-.01	3.60	.3440	.62222
2015	-.12	3.80	.3465	.63616
2016	-.22	3.20	.3601	.78501

As shown in Table 4.1, year 2016 had the highest average profit before tax with a mean of 0.3601 million and standard deviation of 0.78501 followed by year 2015 with a mean of .3465 million and standard deviation of .63616. Year 2014 had a mean of .3440 million and standard deviation of .62222 while year 2013 had a mean of 0.2976 million and standard deviation of 0.61205. The trends indicated that average profit after tax has been in an increasing trend for the period between 2013 to 2016. The implication is that SMEs were able to embark on marketing strategies, introduction of new improved and technological products which geared towards increasing sales volume with time and also lead cost savings and economies of scale.

4.3 Descriptive Analysis for Credit Processing Period

The study sought to evaluate the effect the credit processing period has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic was done to determine the effect of credit processing period on financial performance of Agribusiness SMEs. The results of the descriptive statistics were shown in Table 4.2

Table 4.2: Descriptive Statistic for Credit Processing Period

Credit Processing Period factors	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
The conditions required by financial institutions which are adequate collateral, information asymmetry affect the credit processing period	53.2	32.1	13.1	1.3	0.4	4.36	.789
Most SMEs are categorized as high risk borrower hence affecting their credit processing period	53.2	28.7	7.6	9.3	1.3	4.23	1.021
Networks with financial lenders, connections with other enterprises and business associations assist in reduction of the credit processing period.	41.8	44.3	8.0	5.1	0.8	4.21	.857

As indicated in Table 4.2, most of the respondents reported that the conditions required by financial institutions like adequate collateral, information asymmetry affect the credit processing period with a mean score of 4.36 and a standard deviation of 0.789. The respondents also indicated that most SMEs are categorized as high risk borrower hence affecting their credit processing period with a mean score of 4.23 and a standard deviation of 1.021. Networks with financial lenders, connections with other enterprises as well as business relations assist in reduction of the credit processing period had a mean score of 4.21 and a standard deviation of 0.857.

The finding of the study asserts earlier finding by Porteous, Collins & Abrams (2010), who noted that credit processing period in Japan lead to reduced loan applications. IFC (2010) noted that firms with adequate access to capital are capable of exploiting growth as well as opportunities of investment. It concluded that aggregated economic performance can be enhanced by increasing the access of adequate capital. In line with a survey carried out by Central Bank of Kenya (CBK, 2016), the period of funding has actually been increased this is because the SMEs are categorized as high risk borrowers. Sengupta's (2011) also noted that financial institutions not only rely on an SMEs creditworthiness to extend finance but also get information from other investors which create trust.

4.4 Test of Regression Assumption

Before running a model of regression tests of pre-estimation as well as post estimation were carried out. The tests of pre-estimation carried out in this case were the multicollinearity test whereas the tests of post estimation were normality test. These tests are normally conducted to avoid false regression results from being attained.

4.5 Normality Test for Financial Performance

A Q-Q test for normality was performed on the dependent variable (financial performance) to determine normality; the output of normal Q-Q plot was used. For data that are normally distributed, the data points are close to the diagonal line (Scott et al 2011). The results presented in Figure 4.1. Shows a flow of data points close to the diagonal line therefore the data appear to be normally distributed.

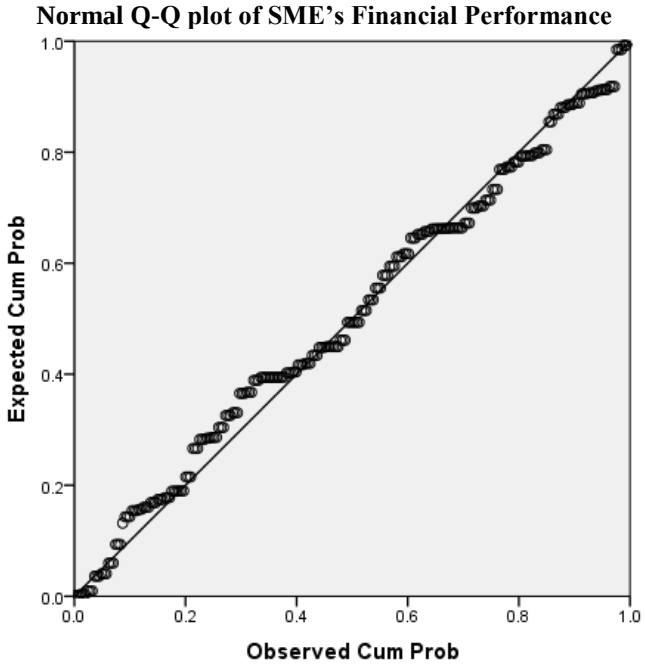

Figure 4.1: Normal Q-Q plot for Financial Performance

4.6 Linearity Test

In order to conduct correlation analysis the set of items that measured credit processing period variable were aggregated by computing the average. The findings of the correlation analysis as shown in Table 4:3 indicated that credit processing period had negative and significant effect on SMEs Financial Performance with r = -0.275, p value 0.000 < 0.05 at 0.05 significance level.

Table 4.3: Correlation Test Results

		SMEs Financial Performance
Credit processing period	Pearson Correlation	-.275**
	Sig. (2-tailed)	.000
	N	237

4.7 Test of Independence

In statistics, the Durbin–Watson statistic is a test statistic used to detect the presence of autocorrelation. According to Durbin and Watson (1971), the statistic ranges from 0 to 4 with 0 indicating positive autocorrelation and 4 indicating negative correlation. A value of 2 or nearing 2 indicates that there is no autocorrelation. The researcher conducted Durbin Watson test to check the autocorrelation of variables. The Durbin–Watson statistic test results generated statistic value of 1.109 as presented in Table 4.4.

Table 4.4: Durbin–Watson Statistic Test Results

Variables	Durbin-Watson Statistic
Credit Processing Period	1.109

4.8 Credit Processing Period and Financial Performance of SMEs

The results of multiple linear regression analysis were shown in Table 4.5 to 4.7

Table 4.5: Model Summary for Credit Processing Period

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275[a]	.075	.072	.83479
a. Predictors: (Constant), Credit Processing Period				

The R value of 0.275 indicated that there was a linear correlation between credit processing period and financial performance. The value of R^2 showed the independent variables explanatory power of 0.075. This denotes that credit processing period explains 7.5% of the changes in SMEs Financial Performance.

Table 4.6: ANOVA for Credit Processing Period

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.373	1	13.373	19.190	.000[b]
	Residual	163.766	235	.697		
	Total	177.139	236			
a. Dependent Variable: SMEs Financial Performance						
b. Predictors: (Constant), Credit Processing Period						

The ANOVA showed an F statistic value of 19.190 at p-value of 0.000. This implies that the model was significant at 5% level of significance. According to Oketch (2007) demand for information from SMEs is only met by a small percentage to the SMEs requirements due to the various factors like lack of adequate collateral, information asymmetry. These requirements cause a delay in credit processing period and affect most Agribusiness SMEs financial performance.

Table 4.7: Coefficients for Credit Processing Period

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.897	.232		21.153	.000
	Credit Processing Period	-.232	.053	-.275	-4.381	.000
a. Dependent Variable: SMEs Financial Performance						

The results of coefficient indicated that there was a negative and significant linear relationship between credit processing period and financial performance of Agribusiness SMEs. This was because the p-value was 0.000 was less than 0.05. This implies that increasing the credit processing period by one unit would lead to a decrease of SMEs Financial Performance by 0.232. From Table 4.21, the equation of bivariate linear regression model fitted by the use of the unstandardized coefficients is; $Y= 4.897 - 0.232CPP + \varepsilon$. Atieno (2008), noted that with the strict conditions have lead to much delay in funding to the Agribusiness SMEs. This delay was found to affect the financial performance of Agribusiness SMEs.

5. Summary, Conclusion and Recommendations

5.1 Conclusion and Recommendations

The study also revealed that credit processing period had a negative and statistically significant effect on financial performance of Agribusiness SMEs when considered alone and when combined with other variables considered in the study. The study therefore conclude that financial institutions should appraise and disburse credit within reasonable time to ensure that Agribusiness do not lose business opportunities due to prolonged delay in loan processing hence affecting their financial performance adversely

5.2 Suggestions for Further Research

This research makes a significant contribution in our understanding by establishing the role and effects of the financial drivers on the financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. Arising from this research, the researcher makes several recommendations for further research. Conduct a research focusing on the benefits of the financial drivers to the financial institutions. Future researchers might as well adopt a case study research design for other sector other than Agribusiness sector that would further add value in understanding the effects of the financial drivers on financial performance. This study considered three variables, collateral requirement, customer information requirements and credit processing period on the financial performance of Agribusiness SMEs. Future researchers should also focus on other types of composite variables that may affect financial performance of SMEs.

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