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EFFECT OF COLLATERAL REQUIREMENT ON FINANCIAL PERFORMANCE OF AGRIBUSINESS SMALL AND MICRO ENTERPRISES IN NYERI CENTRAL SUB COUNTY KENYA

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Abstract

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. At times collateral requirement could deter some entrepreneurs from acquiring finances which could interrupt business growth as well as development. This study sought to investigate the effect of collateral requirement on financial performance of agribusiness small and micro enterprises in Nyeri Central Sub County. The study was guided by theory of financial intermediation theory. The target population of this study was 950 licensed Agribusiness SMEs. A sample size of 274 licensed SMEs operating in the Nyeri Central Sub County was estimated by the use of the Krejcie and Morgan's criterion. A Cronbach alpha coefficient of 0.7 was used to evaluate the reliability of the semi-structured questionnaire. A response rate of 86.5% was achieved. Inferential statistics was carried out to ascertain the relationship between collateral requirement and the financial performance of agribusiness SMEs in Nyeri Central Sub County. Regression assumptions of independence, linearity and normality were done. Results were interpreted using 5% level of significance. Bivariate regression analysis results indicated that collateral requirement had a negative and statistically insignificant effect on financial performance of Agribusiness SMEs. The study concluded that the collateral requirement by commercial banks affects the SMEs financial performance. The study recommends that Agribusiness SMEs should invest in capital assets which will assist them as collateral in time of accessing credit from commercial banks in order to enhance an sustain their financial performance.

Keywords: Collateral Requirements, Financial Performance, Agribusiness Small and Micro Enterprises

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INTRODUCTION

Background of the study

Small and micro enterprises play a big task in new jobs creation, creation of new products, promote innovation and also help to deliver goods and services to the people (World Bank 2017). SMEs accounts for over 99% of total enterprises in developed economies of the world and also generate the highest number of employment opportunities of about 70% on average, in emerging economies it provides an average of 45% employment and 33% contribution to the GDP (OECD, 2017). The big economies such as the United States of America and United Kingdom developed through the growth of SMEs (Kamunge, Njeru & Tirimba 2014) therefore the performance of SMEs should not be underestimated by an economy. SMEs financing has been viewed as important by most policymakers in the recent financial crisis prompting a number of central banks creating programmes that target bank lending to the SME sector. The mandatory requirements needed by financial institutions affects the amount of financing SMEs receives which in turn affects the SMEs financial performance (Ryan, 2014).

SMEs often rely on personal savings or even borrowing from relatives to meet their financial needs, nevertheless when an SME does not access finances they normally turn to commercial banks as their primary source of finance (International Finance Corporation 2010). Many SMEs are not successful in accessing funding from financial institutions; this is because they fail to meet lending requirements, which include collateral security, information asymmetry (Gangata and Matavire, 2013) and therefore leading to a delay of financing. Organizations with adequate access to funds are capable to exploit investment and growth opportunities. Aggregated economic performance can be enhanced by increasing the access of adequate capital. Financing constraint affect small firms' more than it does to large firms (Dalberg report, 2011).

Unsuitable finance sources may bring about an unbalanced loan capital and risk capital mix leading to a threat of the business solvency. Over-dependence on credit finance can test the cash flow position of the company, resulting to unnecessary responsibilities for the company to pay back capital as well as interest that is associated with it. If the an organization begins to experience financial difficulties, inadequate risk capital would just situation worse, since the present loan capital might prevent raising debt finance further and therefore affecting the financial performance of SMEs (Ryan, 2014).

Statement of the Problem

SMEs provide approximately 45% of employment needs in Kenya. Agriculture, being one of the key sectors in the Kenyan Economy, is cited to support the mainstay of the Kenya population. When the Agribusiness SMEs do not financially perform well, they are not able to pay their role in the agricultural value chain (AVC) hence threatening food security. However, these SMEs rely largely on borrowing to finance their growth. Oketch (2007) conducted a research on sixteen financial institutions to assess the demand and supply of credit to SMEs. The findings indicated that the demand and supply for credit have been on the rise ever since 1991 and continue to rise.

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SMEs ordinarily rely on unsecured borrowing; and are regarded as high risk customers due to lack of sufficient resources to pledge as collateral (Kihimbo, 2012). The characteristics of these SMEs are that they are not adequately enlightened in keeping proper books of accounts and they are not able to give reliable financial information to the financial lenders. According to Oketch (2007) demand for 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 which might affect most Agribusiness SMEs in accessing of funds. This study explored the influence of collateral requirement on the financial performance of Agribusiness SMEs in Nyeri Central Sub County.

Study Objective

To evaluate the effect of collateral requirement on the financial performance of Agribusiness Small and Micro Enterprises (SMEs) in the Nyeri Central Sub County.

LITERATURE REVIEW

Theory of Financial Intermediation

The theory of financial intermediation was developed in 1960 by Gurley and Shaw. This theory is founded on the agency theory and the informational asymmetry theory. Theoretically, the financial intermediaries' existence is explained by the high cost of transaction existence, the regulation method and lack of inclusive information in helpful time (Andries, Cuza, 2009). In line with the perfect financial markets model in the neo -classical theory, the theories fulfill the following conditions: the conditions of borrowing/placement are identical for both participants; no one participant can influence the prices; there are no discriminatory fees; the lack of competitive advantage. (Andries, Cuza, 2009). Credit is a tool for financial intermediation because money becomes available to entities that need it in for utilization in the growth of the economy. Theoretical researches have established the association which exists between economic growth and financial intermediation. For example, Levine (2002) in his researches highlighted strongly the financial intermediation role in economic performance. Both empirical and theoretical researches suggest that a financial system which well developed is a benefit to the economy all together. According to Levine (1997) efficient allocation of capital in an economy leads to growth of the economy.

As a country's economy continues to grow, its financial system grows more speedily as compared to the national wealth (Levine, 1997). Schulte's & Wensveen, (2003) noted that efficient financial intermediation leads to a raise in the savings as well as investment level, and it also raises the effectiveness in the financial funds allocation within the economic system. Banks development as well as proficient financial intermediation contributes to growth of the economy this is because savings are channeled to activities that are high productive and also there is a reduction of liquidity risks (Augier & Soedarmono, 2011).This theory is very relevant to this study because the Agribusiness SMEs are affected by financial intermediation, in that the laws that regulate the financial institutions who are the financial intermediaries to the SMEs and the economy as a whole also affect the availability of capital for the SMEs. Agribusiness SMEs are categorized as risky borrowers by financial institutions and therefore meeting the lenders

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requirements has become a challenge for the SMEs to access fund from financial institutions and if they do it is at a very high transaction rate. Due to the constraints of fund the SMEs are not able to invest in new improved asset for the development and innovation of new products, the SMEs would not fully utilize their assets when they break down leading to a limitation of their maintenance, this would lead to a low return on assets (ROA), reduced turnover and also a low profit before tax (PBT). When there is a healthy financial intermediation the Agribusiness SMEs would grow and also makes profits which would lead to economic growth of the Nyeri Central Sub County and the contribute to the growth of the gross domestic product (GDP) of the country. Due to lack of sufficient collateral, inadequate financial information asymmetry and unreliable credit worthiness of the Agribusiness SMEs the theory of financial intermediation would explain inadequate access to finance by potential borrowers in the event that the drivers of lending are not met.

Collateral Requirement and Financial Performance of Agribusiness SMEs

According to Gitman, (2003) collateral pledging is the degree to which borrowers commit the assets a lender as a security for payment of debt. The value of the assets pledged must be utilized to recover the principal in case of default by the borrower. In particular, SMEs give security in form of fixed assets like buildings, land, cars or anything else equivalent or more than the principal loan in the event of default. (Garrett, 2009). Security for loans ought to be actually able of being sold under the markets' normal conditions, at a fair value of market and as well with reasonable promptness. Most financial institutions, so at to finance SMEs ask for collateral equivalent to 100% or more of the loan (Mullei and Bokea, 2000).Collateral requirements reduce inappropriate funds use by SMEs. It's obvious that majority of the SMEs are discriminated as well as denied by the lenders in giving financing; this is owing to the high risk associated with them lacking sufficient resources to pledge as collateral (Kihimbo, 2012). Collateral is a vital prerequisite for to access funds from financial institutions (Bougheas, 2005). Collateral decreases the risk factor of a loan by offering the financial institution with a claim on the assets that are tangible (Etemesi, 2017). Coco (2000) said that collateral is the lender's second line of defense.

The comfort offered by collateral permits financial institutions to give credit on favorable terms to SMEs even though information opaqueness as well as uncertainty characterize the organization. Collateral acts as a device of screening to differentiate between bad and good borrowers and to alleviate the unfavorable borrowers' selection. Bester, (2007) noted that investors having low likelihood of default would disclose themselves by accepting requirements of collateral which could be unappealing for borrowers categorized as high risks. Requirements of collateral act as a mechanism of incentive since higher collateral implements a selection projects that are less risky (Bester, 2007). This is because a low risk borrower has a bigger incentive to guarantee collateral as compared to a high risk borrower, hence lower probability of failure and loss of collateral. Collateral acts as borrower's indicator creditworthiness that is according to Stiglitz and Weiss (1981). Collateral therefore serves as a tool for resolving moral hazard problems (Aghion & Bolton, 2008). A research on challenges that SMEs face in

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accessing finance from financial institutions, revealed that not many SMEs are successful in accessing funding from financial institutions, this is because they fail to meet lending requirements, which include collateral security (Gangata and Matavire, 2013). A study proved that SMEs within Ghana just like majority of the SMEs in other nations face main challenges in credit access. These was because they were unable to give collateral as well as other information required by financial institutions for instance financial statement that are audited making it very difficult for SMEs to access loans from the bank (Vuvor & Ackah, 2011).Organizations with more assets that are intangible have limited access to financing, than organizations with more assets that are tangible. SMEs size also matter in because small and micro SMEs have fewer assets to give as collateral as compared to big organizations. This might partially have to do with the growth stage the organization is in. In the previous stages of the organization, it might have lower profits retained which might obstruct it from purchasing fixed assets as compared to the bigger organizations that have a longer history (Etemesi, 2017).

An additional explanation why small organizations have a small fixed assets proportion is the constraints of capital which they face. Owing to the need to raise huge amounts of capital, it becomes hard for them to get substantial fixed assets. Access to formal finance is also an obstacle to the SMEs who are categorized as high risk borrowers this because the SMEs do not have adequate financial facilities (Cook & Nix son, 2009). A research on challenges that face SMEs in accessing finance from financial institutions; A case of Belaway, Zimbabwe revealed that SMEs are unsuccessful in securing loans on account of financial institutions restrictive requirements, top amongst them being lack of collateral and information asymmetry (Matavire et al., 2013). Amongst these scholars recommendations was that the government ought to play its responsibility of facilitating SMEs to access finance from available financial institutions. A research on challenges that face women entrepreneurs in accessing finance for business in Kenya: A case of Ruiru Township, Kiambu County, and lack of fixed assets was one of the study objectives (Makena, et al., 2014). Nevertheless, the research revealed that lack of tangible collaterals like land was a big obstruction to accessibility to credit by women entrepreneurs. Amongst the researchers recommendations was that the government ought to play its responsibility of facilitating SMEs to get finance from financial institutions.

Conceptual Framework

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

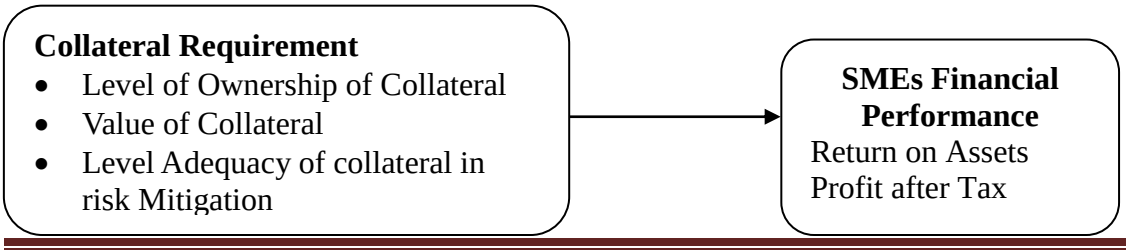

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Figure 2. 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted a descriptive research design to conduct the research. Descriptive approach is as well justified because it's resourceful in gathering big amounts of data within a short period of time. According to Bichanga & Aseyo (2013), this research design doesn't allow variables manipulation. Therefore it was found to be appropriate approach to focus on the effects of the collateral requirements on the financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. The study evaluated the effect of collateral requirement on the financial performance of 950 licensed Agribusiness SMEs in the Nyeri Central Sub County as per the Nyeri County records for 2014.This research employed a stratified sampling technique by dividing population in groups or strata such as agro vets, Open air Market hawkers, Poultry farmers, Cattle farmers, Goat farming. Stratified random sampling was preferred since every SME would have an opportunity of being sampled. The sample size of 274 was determined based on the Krejcie and Morgan's criterion where 29% of each stratum was considered adequate representation as shown in Table.

Table 3.1: Sample Size Classified in Strata

Agribusiness SMEs Group	Target Population (N)	Sample Size (n)
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**

Primary data was collected through a self-administered questionnaire composed of closed ended questions. The choice of questionnaires was used because the closed ended questions increases completeness on questions responses. The questionnaire was administered by the researcher and a research assistant. A pilot survey was conducted to ascertain the reliability of data collection instrument. Cronbach's alpha coefficient (α) threshold of 0.7 Coefficient was used. Data was analyzed using statistical package for social sciences (SPSS). Analysis was done using descriptive statistics and inferential analysis using bivariate linear regression at 5% level of significant.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The study targeted two hundred and seventy four (274) respondents operating small and micro enterprises in Agribusiness Nyeri Central Sub County Kenya out of which two hundred and thirty seven (237) responded. This gave a response rate of 86.5% which was very good according to (Mugenda & Mugenda, 2003).

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Descriptive Analysis for Financial Performance

Average Return on Assets was used to evaluate the performance of the SMEs in the Agribusiness in this study for the year 2013 to 2016. The findings were summarised in the Table 4.1

Table 4.1: Average Return on Assets (Percentage)

Year	Minimum	Maximum	Mean	Std. Deviation
2013	.80	8.40	2.5717	1.79566
2014	1.20	8.30	2.6754	2.02847
2015	1.00	9.40	2.6823	2.05119
2016	1.10	8.90	2.7857	1.98873
Valid N (list wise)				

From Table 4.1, the study revealed that year 2016 had the highest average return with a mean of 2.7857 percent and standard deviation of 1.98873 followed by year 2015 with a mean of 2.6823 percent and a standard deviation of 2.05119. Year 2014 had a mean of 2.6754 percent and standard deviation of 2.02847, while year 2013 had the lowest mean 2.5717 percent and standard deviation of 1.79566. The trends indicated that average return has been in an increasing trend for the period between 2013 to 2016. There was a clear indication that the SMEs with the highest return was at 8.90 percent on the invested capital while the lowest was 0.80 percent of return on the SMEs invested capital.

Descriptive Analysis for Collateral Requirements

The study sought to explore the influence that the collateral requirement has on the financial performance of Agribusiness SMEs in the Nyeri Central Sub County. Descriptive statistic was done to determine the effect of collateral requirement on financial performance of Agribusiness SMEs. The results of the descriptive statistics were shown in Table 4.2

Table 4.2: Descriptive Statistic for Collateral Requirements

Collateral Requirements factors	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
Collateral value required does affect the credit access from financial institutions by Agribusiness SMEs.	8.4	61.6	17.7	7.6	4.6	3.62	.916

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Lack of fixed assets/collateralization is a hindrance to many Agribusiness SMEs access to credit from financial institutions.	3.4	22.4	16.5	42.2	15.6	2.56	1.102
The availability of adequate collateral mitigates the Agribusiness SMEs risk factor.	14.3	54.4	11.4	16.5	3.4	3.60	1.031

As shown in Table 4.2, Collateral value required does affect the credit access from financial institutions by Agribusiness SMEs with a high extent; this is with a mean score of 3.62 and a standard deviation of 0.916. Lack of fixed assets/collateral is a hindrance to many Agribusiness SMEs access to credit from financial institutions had a mean score of 2.56 and a standard deviation of 1.102. The study further revealed that most respondents indicated that the availability of adequate collateral mitigates the Agribusiness SMEs risk factor with a mean score of 3.60 and a standard deviation of 1.031. The finding of the study supports Bougheas (2005), who noted that collateral is an important prerequisite for to access finance from financial institutions. Etemesi (2017), stated that collateral reduces the risk factor of a loan by giving the financial institution a claim on the tangible asset. A research on the challenges that SMEs face in accessing finance from financial institutions, revealed that not many SMEs be successful in accessing funding from financial institutions, this is because they fail to meet lending requirements, which include collateral security (Gangata and Matavire, 2013).

Test of Regression Assumption

Test of regression assumption was carried out for multicollinearity test and linearity test. These tests are normally conducted to avoid false regression results from being attained.

Multicollinearity Test for Regressors

The researcher tested the Multicollinearity of the variables before conducting a regression analysis. Multicollinearity occurs when more than two predictor variables are inter-correlated, Kothari (2014). This is an undesirable situation where the correlations among the independent variables are strong as it increases the standard errors of the coefficients. To test for multicollinearity, Variance Inflation Variable (VIF) or tolerance, a diagnostic method was used to detect how severe the problem of multicollinearity is in a multiple regression model. VIF statistic of a predictor in a model indicates how much larger the error variance for the unique effect of a predictor (Baguley, 2012). Using the VIF method, a tolerance of less than 0.20 and a VIF of more than 5 indicates a presence of multicollinearity. If two or more variables have a Variance Inflation Factor (VIF) of five or above five, one of these variables ought to be removed from the regression analysis since this shows multicollinearity presence (Runkle et al., 2013). As shown in Table 4.3 there is no variance inflation factor with a value of five or above five and therefore absence of multicollinearity.

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Table 4.3: Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
Collateral Requirement	.658	1.519

Linearity Test

The researcher used Pearson's Product Moment Coefficient Correlation (r) to establish any linear associations among the dependent and independent variables in the study and their strength. Coefficient Correlation (r) values range from -1 to +1, Zero indicates that there is no linear association. Negative (r) values imply that there is negative Correlation while positive (r) values imply positive Correlation. In order to conduct correlation analysis the set of items that measured each variable were aggregated by computing the average. The findings of the correlation analysis as shown in Table 4:4 indicated that Collateral Requirement had negative and insignificant effect on SMEs Financial Performance with r = -0.114, p value 0.079 > 0.05 at 0.05 significance level.

Table 4.4: Correlation Test Results

		SMEs Financial Performance
Collateral Requirement	Pearson Correlation	-.114
	Sig. (2-tailed)	.079
	N	237

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 1.197 as presented in Table 4.5.

Table 4.5: Durbin–Watson Statistic Test Results

Variables	Durbin-Watson Statistic
Collateral Requirements	1.197

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The results of bivariate linear regression analysis were shown in Tables 4.6 to 4.8

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Table 4.6: Model Summary for Collateral Requirements

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.114[a]	.013	.009	.86250

a. Predictors: (Constant), Collateral Requirement

The R value of 0.114 indicated that there was a weak linear relationship between the variable collateral requirement and financial performance. The value of R^2 showed the independent variables explanatory power of 0.013. This means that collateral requirement explains 1.3% of the changes in SMEs Financial Performance.

Table 4.7: ANOVA for Collateral Requirements

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.320	1	2.320	3.118	.079[b]
	Residual	174.820	235	.744		
	Total	177.139	236			

a. Dependent Variable: SMEs Financial Performance

b. Predictors: (Constant), Collateral Requirement

The ANOVA showed an F statistic value of 3.118 at p-value of 0.079. This implies that the model was insignificant at 5% significance level. With support of earlier literature, requirements of collateral act as a mechanism of incentive since higher collateral implements a selection projects that are less risky (Bester, 2007).

This is because a low risk borrower has a bigger incentive to guarantee collateral as compared to a high risk borrower, hence lower probability of failure and loss of collateral. This means collateral considered alone has an insignificant effect.

Table 4.8: Coefficients for Collateral Requirements

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.737	.471		10.059	.000
	Collateral Requirement	-.225	.128	-.114	-1.766	.079

a. Dependent Variable: SMEs Financial Performance

The results of coefficient indicated that there was a negative and insignificant linear correlation between collateral requirement and financial performance. This was because the p-value was 0.079 which was above 0.05. This signifies that increasing the collateral requirement by one unit would lead to a decrease of SMEs Financial Performance by 0.225. As indicated in Table 4.15,

the equation of bivariate linear regression model fitted using unstandardized coefficients is; Y= 4.737 - 0.225CR+ ε.

According to Gitman (2003), collateral pledging defined as the degree to which borrowers commit assets to a lender as security for payment of debt. Kihimbo (2012), noted that collateral requirements reduce inappropriate use of the funds by SMEs. From the study, it's obvious that the majority of SMEs are discriminated as well as denied by the lenders in offering financing; this is owing to the high risk associated with them lacking adequate resources to pledge as collateral. A case of Belaway, Zimbabwe revealed that SMEs are unsuccessful in securing loans owing to financial institutions restrictive requirements, top amongst them being lack of collateral.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Conclusion and Recommendations

The main objective of the study was to establish the effects of the financial drivers on the financial performance of small and micro enterprises in agribusiness Nyeri Central Sub County Kenya. The study revealed that collateral requirement had a negative and statistically insignificant effect on financial performance of Agribusiness SMEs when considered alone and when combines with other variables considered in the study. This could be associated with the fact that collateral alone could not be the main consideration to determine how much an Agribusiness trader can access from financial institution though it is a consideration as security. Therefore collateral requirement was found to have an effect on financial performance of Agribusiness SMEs as it has affected collateral value required by financial institutions from Agribusiness SMEs. The study therefore recommends that Agribusiness SMEs should expand their operations as the size of their business is a factor that enhance access to credit and collateral considerations

Suggestions for Further Research

Arising from this research, the researcher recommends that further research should 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.

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