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Financial Leverage and Performance Variance A Mong Banks. Evidence of Tier 1 Commercial Banks Listed On Nairobi Security Exchange Kenya.

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ABSTRACT: *This research seeks to analyse and compare performance amongst tier 1 commercial banks listed on NSE (that is banks with an asset base above 100 billion by the year 2011) in relation to their financial leverage. Specific indicators were used to measure and compare variance in their performance were profitability Return on assets (ROA) and Return on capital employed (ROCE), growth of the firm Earnings per share (EPS) and Dividend yield (DY) and value of the firm Price book value (PBV) was preferred over price/earnings ratio because earnings can be erratic, and hence vary depending on the season of the business but assets on the other hand are less volatile and relatively easy to value. Person correlation analysis and regression analysis were used to test correlation of data, F-test,Durbin Watson test, adjusted R^2, mean and standard error of the data. There is a negative correlation between debt asset ratio and ROAC and ROCEC (-.642) and (-.494) respectively though not significant. That is as the debt ratio increases, it means the banks' most assets are being financed by both long-term and short-term liabilities and hence the return on such assets as well as that on capital employed is reduced to cater for the outstanding liabilities.There is positive correlation between the debt asset ratio and the EPS (.096) though not significant thisis consistent with a bird in hand theory, studies that provide support for the same include Gordon and Shapiro (1956) Gordon (1959, 1963), Lintner (1962), and Walter (1963). Thereis a negative correlation between debt ratio and the PBV (-.386) though not significant as well this is consistent with the market timing theory (Baker and Wurger (2012) which asserts a negative relation between market value to book value ratio and the firm's financial leverage .*

KEY WORDS*: financial leverage, Performance, Nairobi Security Exchange, Mean.*

CHAPTER ONE

This chapter gives a brief description of what financial leverage is as discussed by various authors both globally and locally as well as summary of Nairobi stock exchange Kenya and its operations.

I. BACKGROUND INFORMATION

Researches have been done before all over the world concerning the financial leverage and firms' performance for example B.Nimalathasan&ValeriuBrabete (2010) pointed out "capital structure and its impact on profitability": a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that Debt equity ratio is positively and strongly associated to all profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios). Berk and DeMarzo (2007) define capital structure like this: "The relative proportions of debt, equity, and other securities that a firm has outstanding constitute its capital structure" (Berk &DeMarzo, 2007, p. 428). Keown et al (2003) opined that financial structure is the mix of all items that appear on the right hand side of the company's balance sheet. Capital structure is the mix of the long-term sources of funds used by the firm (Van Horne 2002). Therefore, financial structure is the sum of current liabilities and capital structure. The issue of financial leverage has gained considerable attention from academicians, practitioners and policy makers due to its strategic effects on the performance on firms, Ebiringa, Oforegbunam Thaddeus (2012) "Analysis of Effect of Financing Leverage on Bank Performance": a study of banks listed on Nigerian stock exchange. The decision regarding financial leverage is based on the objective of achieving the maximization of shareholders wealth. Debt is capital that has been loaned by other parties and must be paid. In contrast, equity represents the investment made by owners or shareholders and is permanent source of capital. As with other inputs that is labour, equipment, facilities, both debt and equity have a cost. The mix of long term debt and equity is referred as the firm's financial leverage.

(Wikipedia),according to the Nairobi Security Exchange (NSE) website, in Kenya, dealing in shares and stocks started in the 1920s when the country was still a British colony. However, the market was not formal as there did not exist any rules and regulations to govern stock broking activities. Trading took place on a 'gentleman's agreement.' Standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery and settling relevant costs. At that time, stock broking was a side-lined business conducted by accountants, auctioneers, estate agents and lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialisation, the need for association did not arise.In 1951, an estate agent named of Francis Drummond established the first professional stock broking firm. He also approached the finance minister of Kenya, Sir Ernest Vasey, and impressed upon him the idea of setting up a stock exchange in East Africa. The two approached London Stock Exchange officials in July 1953 and the London officials accepted to recognise the setting up of the Nairobi Stock Exchange as an overseas stock exchange.In 1954 the Nairobi Stock Exchange was then constituted as a voluntary association of stockbrokers registered under the Societies Act.

Statement of the problem

A particular combination of common stock, preferred stock and debt used in financing the assets of a firm creates some level of financial risk. Financial risk is directly related to the firm's capital and financial structure/leverage (Pandey, 2005). There is an ever increasing and growing variance in performance of commercial banks in Kenya especially the big /giant banks with relation to financing of their operations. Despite the fact that some banks started long time ago. The emerging new banks are overturning the banking sector with speed this is evident from think business publication "banking survey 2011, 2012 and 2013" website (www.thinkbusiness.co.ke).

Objectives of the study

- To explore the effects of financial leverage on the profitability of the listed tier1 commercial banks in Kenya.
- To assess the effects of financial leverage on growth of the listed tier 1 commercial banks in Kenya.
- To assess the effects of financial leverage on the value of listed tier 1 commercial banks in Kenya.

Research hypothesis.

Hypothesis ii: Financial leverage
Hiio: Hii_1 is not true
$Hiio_1$ Financial leverage has no significant effect on the profitability of the tier1 commercial banks in Kenya.
$Hiio_2$ Financial leverage has no significant effect on growth of the tier 1 commercial banks in Kenya.
$Hiio_3$ Financial leverage has no significant effect on value of tier 1 commercial banks in Kenya.

The Literature Review

II. INTRODUCTION

Berk and DeMarzo (2007) define financial leverage/capital structure like this: "The relative proportions of debt, equity, and other securities that a firm has outstanding constitute its capital structure" (Berk &DeMarzo, 2007, p. 428). In the quest to optimize their objective, which hinges primarily on quantifiable performance, financial managers have adopted various capital structures as a means to that goal. A firm can finance its investment by debt and/or equity. The use of fixed-charged funds,) such as debt and preference capital along with the owner's equity in the capital structure is described as financial leverage or gearing (Dare and Sola, 2010). An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt. Financial leverage takes the form of a loan or other borrowing (debt), the proceeds of which are (re)invested with the intent to earn a greater rate of return than the cost of interest. An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt. Leverage allows a greater potential returns to the investor than otherwise would have been available, but the potential loss is also greater: if the investment becomes worthless, the loan principal and all accrued interest on the loan still need to be repaid (Andy et al, 2002). This constitutes financial risk (Pandey; 2005). The degree of this financial risk is related to the firm‟s financial structure.

2.1 Capital Structure Theories And Hypothesis

This chapter presents the theoretical framework applied for the study; it includes a review of capital structure theory and also a discussion about the effect of capital structure on MFIs performance. This chapter also includes hypothesis and variables.

2.1.1 Capital structure theory

The capital structure decision is crucial for any business organization, including MFIs. This decision is important because of the need to maximize the returns off the firm, and also because of the impact such a decision has on the firm's ability to deal with its competitive environment. The capital structure of a firm is a mix of different securities (Abor, 2005). Berk and DeMarzo (2007) define capital structure like this: "The relative proportions of debt, equity, and other securities that a firm has outstanding constitute its capital structure" (Berk &DeMarzo, 2007, p. 428).

2.1.2 Modigliani and Miller Theorem

One of the earliest important papers on capital structure is the work of Modigliani and Miller. In 1958 they published a seminal work in capital structure where they concluded to the broadly known theory of "capital structure irrelevance" where the capital structure is irrelevant to the value of a firm in perfect capital markets (Abor, 2005; Miller & Modigliani, 1958). The law of one price implied that leverage would not affect the total value of the firm. Instead, it only changes the allocation of cash flows between debt and equity, without changing the total cash flows of the firm (Berk &DeMarzo, 2007).

2.1.3 The trade-off theory

The trade-off theory says that the firm will borrow up to the point where the marginal value of tax shields on additional debt is just offset by the increase in the present value of possible cost of financial distress. The value of the firm will decrease because of financial distress (Myers, 2001). According to Myres (2001) financial distress refers to:" the costs of bankruptcy or reorganization, and also to the agency costs that arise when the firm's creditworthiness is in doubt" (Myers, 2001, p. 89). The trade-off theory weights the benefits of debt that result from shielding cash flows from taxes against the costs of financial distress associated with leverage. "According to this theory, the total value of a levered firm equals the value of the firm without leverage plus present value tax savings from debt, less the present value of financial distress costs".

2.1.4 The pecking order theory

The pecking order theory put forth by (Myres, 1984) presents the idea that firms will initially rely on internally generated funds, i.e. undistributed earnings, where there is no existence of information asymmetry, and then they will turn to debt if additional funds are needed and finally they will issue equity, only as a last resort, to cover any remaining capital requirements. The order of preferences reflects the relative costs of the various financing options (Abor, 2005; Berk &DeMarzo, 2007).

2.1.5 The agency cost theory

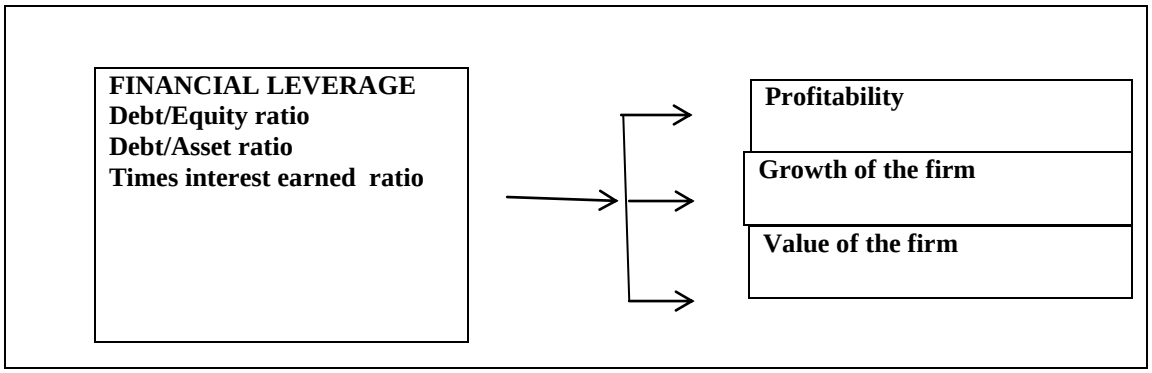
Jensen and Meckling (1976) argued that it is inevitable to avoid agency costs in corporate finance. Agency costs are the costs that arise when there are conflicts of interest between stakeholders and managers and between debt-holders and shareholders (Berk &DeMarzo, 2007; M. C. Jensen &Meckling, 1976). Jensen and Meckling (1976) describe and agency relationship as: " a contract under which one or more persons (the principal(s)) engage another person (agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (M. C. Jensen &Meckling, 1976, p. 5).

Justification

There have been studies emphasizing on the relationship between capital structure and firm performance. Berger and Bonaccorsi di Patti (2006) argued that firm performance and capital structure could be closely correlated. There are two distinct and opposing theories on financial leverage and its effect on firm value, namely, the early theories of capital structure and the later theories. The financial leverage controversies as sparked by these two opposing theories, the old school of thoughts suggest that financial leverage is irrelevant; that one source of capital is as good as any other and that the value of the firm is always constant regardless of the debt–equity mix. Others hold the view that financial leverage can positively influence the value of the firm and therefore to break such a paradox, research of the same on tier 1 commercial banks in Kenyan perspective proves necessary.

CONCEPTUAL FRAME WORK

Independent variable **Dependent variable**



Chapter 3 Research Methodology

III. INTRODUCTION

This chapter point out the research design that the researcher intend to use, the population from which the sample will be selected from the tier 1 banks listed on NSE, sampling frame and technique were applied, data collection and analysis method that were used to run the data to be collected.

3.1 Research Design

The researcher used empirical type of research. The study used survey design, and utilized secondary data from tier 1commercial banks listed on Nairobi Securities Exchange website and companies' website. Audited financial statements for the banks selected were used; thus the reliability and validity of the findings were anticipated. The design was ideal and reliable for the research.

3.2 Target Population

The number of listed commercial banks in Kenya stands at nine (9) out of the forty two commercial banks operating in the Kenyan economy, but only 6 fall in the tier 1 category of commercial banks listed on NSE.

3.3 Sample Size And Sampling Techiniques

The study was limited to listed banks and those that were examined had to meet the requirement data. The sample for the study consisted of tier1commercial banks listed on Nairobi Securities Exchange NSE for the period of five years from 2007-2011 that was banks with an asset base of Kshs 100 billion and a above.

3.4 Data Collection

The data was taken from reliable sources to ensure the reliability of the study. Secondary data was collected from various databases to undertake the analysis. Such as income statements, balance sheets and financial statements will be collected from the NSE and bank's website.

3.5 Reliability And Validity Testing

The instruments used were taken through both reliability and validity testing. For reliability, test and re-testing method was used. For validity testing, expert opinions were sought from supervisors and practitioners in the area of banking who confirmed on the same.

3.6 Data Processing, Models And Analysis

SPSS, this is a scientific process that was used in the analysis of data scientifically

Variable table 3-1

T-values wereused in computation for the purpose of testing the significance of different independent attributes by the use of the regression analysis method.

The equation: Model **egression equations**

YFL= α+ ß $_1$**ROA** + ß $_2$**ROCE**+ ß$_3$**EPS** +ß$_4$**DY**+ß$_5$**PBV**+ ß$_{6GD+}$**e**

Where: **e** is the error term ß$_1$ß$_2$ß$_3$ ß$_4$ ß$_5$ and ß$_6$ are regression coefficients (parameters) and $\alpha$is a constant.

Model 2: Regression equations (Debt equity ratio as a factor)

YDE= **α+ ß $_1$ROA + ß $_2$ROCE+ ß$_3$EPS +ß$_4$DY+ß$_5$PBV+ ß$_{6GD+}$e**

Model 3: Regression equations (Debt asset ratio as a factor)

YDA= **α+ ß $_1$ROA + ß $_2$ROCE+ ß$_3$EPS +ß$_4$DY+ß$_5$PBV+ ß$_{6GD+}$e**

Model 4: Regression equations (Times interest earned as a factor)

YTIER= **α+ ß $_1$ROA + ß $_2$ROCE+ ß$_3$EPS +ß$_4$DY+ß$_5$PBV+ ß$_{6GD+}$e**

CHAPTER FOUR
FINDINGS AND DISCUSSION
PEARSON CORRELATION

The researcher has checked the Pearson correlation, which varies between -1 and 1, if the p-value is 0, there is no linear correlation, and if the p-value is -1 or 1 we have a perfectly negative or positive relationship between the variables. According to Eikemo& Clausen (2007) values over 0, 8 for the Pearson correlation should be taken a closer look at.

CORRELATION ANALYSIS TABLE 1
DEBT ASSET RATIO (DAC)

There is a negative correlation between debt asset ratio and ROAC and ROCEC (-.642) and (-.494) respectively though not significant. That is as the debt ratio increases, it means the banks' most assets are being financed by both long-term and short-term liabilities and hence the return on such assets as well as that on capital employed is reduced to cater for the outstanding liabilities.

There is positive correlation between the debt asset ratio and the EPS (.096) which is not significant. This because as the debt ratio increases the banks needs to instil confidence in the minds of the shareholders, prospects and the public by maintaining relatively good earnings per share. With a high degree of financial leverage come high interest payments. As a result, the bottom-line earnings per share are negatively affected by interest payments. As interest payments increase as a result of increased financial leverage, EPS is driven lower. There is a negative correlation between debt ratio and DYC and PBV (-.43) and (-.587) respectively, this is consistent with a bird in hand theory, sstudies that provide support for the same include Gordon and Shapiro (1956) Gordon (1959, 1963), Lintner (1962), and Walter (1963).

Debt Ratio (Dec)

From the correlation table above debt ratio is negatively correlated to both ROAC and on ROCEC (-.535) and (-4.3) respectively though not significant. The relationship implies that as the debt equity ratio increases the tier 1 commercial banks will tend to pay off such debts to avoid being plunged into higher debts in future. Consequently this leads into the banks' returns both on asset and capital employed to reduce.

There is a negative correlation between debt ratio and the PBV (-.386) though not significant as well this is consistent with the market timing theory (Baker and Wurger (2012) which asserts a negative relation between market value to book value ratio and the firm's financial leverage . Debt ratio has a positive correlation with both dividend yield and earnings per share (037), (.395) respectively.

Times Interest Earned Ratio (Tier)

From the correlation table above TIER is positively correlated to ROAC and ROCEC (.862,) (.846) which is significant at 95% confidence level. This indicates that the higher the TIER ratio the higher the profits because ROA and ROCE are both a component of profitability. A high TIER is sign of banks making high operating profits that are able to meet all the available interest charges.

The table 4-1 shows a positive correlation between TIER and PBV (.961) which is significant at 99% confidence level with (P-values<0.05). That is a TIER increases by 1 the value of firm also tends to increase by 0.961

There is a positive correlation between TIER and DYC and EPS (.656), (.383) respectively.

Regression Results

The regression analyses were carried out to determine the relationship between financial leverage and performance of tier 1 commercial banks listed on NSE. Measures of performance, ROA, ROCE, EPS, DY and PBV, were regressed against different measures of financial leverage.

The null hypothesis is usually rejected if the test is statistically significant at the chosen significance level. But there are two types of error that can be made when using hypothesis tests:

1. Rejecting H0 when it actually was true; this is called a type I error.
2. Not rejecting H0 when it actually was false; this is called a type II error.

(Brooks, 2008, p. 64)
The probability of a type I error is equal to the significance level, so in this study there is a 5 percent chance of making a type I error. Before the researcher presents the result of the regressions a significance level has to be chosen. Studenmund (2011) recommends using a 5 percent significance level, but he also states that it makes sense to use a 10 percent level when the risk of type II errors are high. In this study the researcher has used 5 percent significance level.

If the null hypothesis is rejected at the 5 percent level, we can say that the result of the regression is statistically significant. But on the other hand if the null hypothesis is not rejected, we can say that the regression is not significant, or that it is insignificant (Brooks, 2008). The marginal significance level is listed in the tables of the regressions as the p-value (sig). A p-value for a t-score is the probability of observing the t-value in that size or larger, if the null hypothesis were true. I have also included the t-values in the tables of the regressions, but I will mainly emphasize in the p-values. Because the p-value is a probability, it ranges between 0 and 1. This value tells us the lowest level of significance at which we can reject the null hypothesis. Small p-values casts doubt on the null hypothesis, so in order to reject a null hypothesis, we need a low p-value (Studenmund, 2011). The decision rule used in the following regression analysis is stated below.
Decision rule:
If p > 0,5 Reject H0
If p < 0,5 Do not reject H0

I have also performed F-testes, which provides a formal hypotheses test of the overall fit of the models. The F-test tests the hypothesis that the predicted values show no relationship to the dependent value. A low significance value in the F-test indicates that we have a good model fit (Studenmund, 2011). As explained above, the F-test measures the overall fit of the model, but the simplest and most commonly used measure of fit is R^2. This is a measure of the overall fit, and tells us how much of the variance in the dependent variable is explained by the model. R^2 must lie in the interval between 0 and 1. It is important to know that a high value of R^2 does not necessarily indicate a good model. One problem with R^2 is that adding another independent variable to the model can never decrease R^2. To compensate for this there is made a modification to R^2, which is called adjusted R^2. Pallant (2007) states that if the sample is small it we should consider reporting the adjusted R^2 rather than the normal R^2 (Pallant, 2007; Studenmund, 2011). In this study because sample size is small, the researcher has opted to use adjusted R^2.

Model 1 And 2

In model 1 the adjusted R^2 of 0.809 indicates that 80.9 percent of the return on assets is explained by the dependent variables in the model. The financial leverage has a p-value of 0.112 which means that this variable does not have any statistically significant effect on the performance in this model.
Model 2 the adjusted R^2 of 0.521 indicates that 52.1 percent of the return on capital employed is explained by the dependent variables in the model. The financial leverage has a p-value of 0.273 which means that this variable does not have any statistically significant effect on the performance in this model.

MODEL 3

In model 3 the adjusted R^2 of .556 indicates that 55.6 percent of the earnings per share are explained by the dependent variables in the model. The financial leverage has a p-value of 0.768 which means that this variable has statistically significant effect on the performance in this model.

MODEL 4

In model 4 the adjusted R^2 of .101 indicates that 10.1 percent of the dividend yield are explained by the dependent variables in the model. The financial leverage has a p-value of 0.581 which means that this variable has statistically significant effect on the performance in this model.

MODEL 5

In model 5 the adjusted R^2 of .980 indicates that 98.0 percent of price book value is explained by the independent variables in the model. The financial leverage has p-value of 0.012 which means that this variable does not have statistically significant effect on the performance in this model

Multi-Collinearity Test

The researcher has also tested the models for multi-collinearity, which means correlation between independent variables. The term collinearity implies that two variables are close to being perfect linear combinations of one another. If there are more than two variables involved in this it is often called multi-

collinearity (Brunin, 2006). When the problem of multi-collinearity gets large, it will be difficult to distinguish between the effects of the different variables. It will also lead to inaccurate estimates and the significance values will get large (Eikemo& Clausen, 2007)

This test can be measured using variance inflation factor (VIF) or tolerance test. (In this study the researcher used both the VIF and tolerance). From the regression analysis models 1 to 5 have all their VIF values below 10 which is the critical value rule of the thumb when VIF values are less than 10 then there is no multi-collinearity problem (Besley 1980) as sighted in Jingyu Li (2003) or Values over 10 for the VIF values would be a concern here, indicating multi-collinearity (Pallant, 2007).

Tolerance is an indicator of how much of the variability of the specified explanatory variable that is not explained by the other explanatory variables in the model, if this value is very small (less than 0.1). It indicates that the multiple correlations with the other variables is high and suggesting that there is a possibility of multi-collinearity. Tolerance is calculated using the formula 1-R squared for each variable. The researcher has checked all the five models, and all of the correlation values are far below the critical values, so there is no need to worry about multi-collinearity affecting the data.

Durbin Watson Test

Is a test used to detect auto correlation from the regression models 1to 5 all Durbin Watson values are less than 3 indicating that there is no autocorrelation the rule of thumb.

Debt To Equity

The mean value of debt to equity is 0.5760 which indicate that tier 1 commercial banks are highly levered. That is they use approximately 57.60 percent debt financing. The minimum value of debt to equity is .30 and the maximum value is .75, while the standard deviation is 0.17511 which indicates that there is a huge spread amongst the tier 1 commercial banks when it comes to financial leverage.

Debt To Asset

The mean value of debt to asset is .8587 which indicates that 85.87 percent of the total assets are financed by debt, this means tier 1 commercial banks listed on NSE largely depend on debt financing. The minimum value of date to equity is .77 and maximum value .91 while standard deviation is .04756 indicating a very minimal spread on financial leverage amongst tier 1 commercial banks listed on NSE evident by a variance value of .002.

Tier

The mean value of TIER is 3.1633 which means that tier 1 commercial banks listed on NSE are able to pay 3 times all the interest charges from their operating profits. It is an indication that the banks are performing well and an indication of low level of gearing. The minimum value of TIER is 1.16 and maximum 5.04 indicating a huge spread of financial leverage as evident by the highest variance of 2.07.

IV. CONCLUSIONS

From both correlation and regression results where return on assets and return on capital employed were used as a measure of profitability performance, total debt to assets and debt to equity ratios have a negative impact on return on assets and return on capital employed. These results are consistent with the previous studies.Abor (2007) concluded that capital structure, especially long term and debt ratios have a negative effect on performance of SMEs. There have also been some other studies that have proved empirical evidence supporting this negative relationship between debt levels and ROA (Cassar& Holmes, 2003; Kyereboah-Coleman, 2007; Silva, 2008). The ratios of total debt to equity, debt to asset, have a negative effect on return on assets and return on capital employed, but none of them are significant. This is also consistent with the pecking order theory (Myers, 2001, pp. 92-93).There is appositive correlation between financial leverage and EPS this is consistent with the bird in hand dividend theory (Gordon 1959, 1963), Lintner (1962), and Walter (1963).

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[14] Appendices

4.1 CORRELATION TABLE 1

	ROAC	ROCEC	DYC	EPS C	PBVC	DAC	DEC	TIERC
ROAC	.1							
ROCEC	.919**	.1						
	.010							
DYC	.532	.810	.1					
	.278	.051						
EPSC	.125	-.086	-.155	.1				
	.814	-.051	.770					
PBVC	.944**	.928**	.665	.186	1			
	.005	.008	.149	.724				
DAC	-.642	-.494	-.043	.096	-.587	1		
	.169	.319	.936	.857	.220			
DEC	-.535	- .403	.037	.395	-.386	.446	1	
	.274	.428	.944	.450	.450	.375		
TIERC	.862*	.846*	.656	.383	.961**	-.528	-.134	1
	.026	.034	.157	.454	.002	.281	.800	

**.Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.3 REGRESSION MODEL 1 (ROA)

Independent variable	Unstandardized Coefficients		standardized Coefficients			Collinearity statistics	
	B	**Std Error**	**Beta**	**t**	**sig**	**tolerance**	**VIF**
(constant)	2.8211.514		1.863	.204			
DAC	-.054	.310	-.045	-.176	.877	.577	1.732
DEC	-.433	.233	- .410	-1.858	.204	.786	1.272
TIERC	.853	.253	.783	3.372	.078	.708	1.412

DURBIN WATSON	2.055
F-CHANGE	8.057
F SIG	.112
R^2	.924
ADJUSTED R	.809
STD DEVIATION	1.53965

4.4 REGRESSION MODEL 2 (ROCE)

Independent variable	Unstandardized Coefficients		standardized Coefficients			Collinearity statistics	
	B	**Std Error**	**Beta**	**t**	**sig**	**tolerance**	**VIF**
(constant)	1.8722.203		.849	.485			
DAC	.122	.451	.110	.270	.813	.577	1.732
DEC	-.327	.339	-.337	-.965	.436	.786	1.272
TIERC	.859	.368	.859	2.335	.145	.708	1.412

DURBIN WATSON	2.270
F-CHANGE	2.811
F SIG	.273
R^2	.808
ADJUSTED R^2	.521
STD DEVIATION	1.32336

4.5 REGRESSION MODEL 3 (EPS)

Independent variable	Unstandardized Coefficients		standardized Coefficients			Collinearity statistics	
	B	**Std Error**	**Beta**	**t**	**sig**	**tolerance**	**VIF**
(constant)	-.8634.949		-.174	.878			
DAC	.303	1.013	.220	.299	.793	.577	1.732
DEC	.449	.761	.371	.590	.615	.786	1.272
TIERC	.684	.826	.549	.827	.495	.708	1.412

DURBIN WATSON	2.761
F-CHANGE	.404
F SIG	.768
R^2	.378
ADJUSTED R	.556
STD DEVIATION	1.12736

4.6 REGRESSION MODEL 4 (DY)

Independent variable	Unstandardized Coefficients		standardized Coefficients			Collinearity statistics	
	B	**Std Error**	**Beta**	**t**	**sig**	**tolerance**	**VIF**
(constant)	-1.5383.995		-.385	.737			
DAC	.587	.818	.443	.717	.548	.577	1.732
DEC	-.048	.614	-.041	-.078	.945	.786	1.272
TIERC	1.058	.667	.884	1.586	.254	.708	1.412

DURBIN WATSON	2.663
F-CHANGE	.847
F SIG	.581
R^2	.560
ADJUSTED R	.101
STD DEVIATION	1.31705

4.7 REGRESSION MODEL 5 (PBV)

Independent variable	Unstandardized Coefficients		standardized Coefficients			Collinearity statistics	
	B	**Std Error**	**Beta**	**t**	**sig**	**tolerance**	**VIF**
(constant)	1.325.418		3.168	.087			
DAC	.033	.086	.032	.387	.736	.577	1.732
DEC	-.247	.064	-.274	-3.838	.062	.786	1.272
TIERC	.874	.070	.942	12.518	.006	.708	1.412

DURBIN WATSON	2.585
F-CHANGE	82.533
F SIG	.012
R^2	.992
ADJUSTED R	.980
STD DEVIATION	1.36078

4.8 DESCRIPTIVE TABLE.

	Minimum	Maximum	Mean	Std eviation	Variance	Skewness	Kurtosis
ROA	.01	.04	.0307	.01360	.000	-.922	.229
ROCE	.06	.30	.2105	.08261	.007	-1.098	1.735
EPS	1.02	16.23	5.3673	5.48680	30.105	2.119	4.871
DY	1.67	6.13	0.03457	2.42179	5.865	-.021	-2.832
PBV	1.24	3.58	2.6383	.86613	.760	-.661	-.022
GOOD 'ILL	1.00	5.00	1.6667	1.63299	2.667	2.449	6.000
DE	.30	.75	.5760	.17511	.031	-.634	-391
DA	.77	.91	.8587	. 04756	.002	-1.378	3.023
TIER	1.16	5.04	3.1633	1.42027	2.017	-.221	-.899
VALID ISTWISE							