International Journal of Scientific Research in Multidisciplinary Studies
Vol.8, Issue.10, pp.11-20, October (2022)

Research Paper
E-ISSN: 2454-9312
P-ISSN: 2454-6143

Corporate Restructuring, Firm Characteristics and the Financial Performance of Companies Listed at the Nairobi Securities Exchange, Kenya

H.K. Isabwa

Economics, Accounting & Finance, School of Business & Entrepreneurship, JKUAT, Nairobi, Kenya

Author's Mail Id: harwoodisabwa@yahoo.com, Tel.: +254-7163-87175

Available online at: www.isroset.org

Received: 30/Aug/2022, Accepted: 01/Oct/2022, Online: 31/Oct/2022

Abstract **−** Firms should adopt corporate restructuring to improve their financial performance. However, after the restructuring exercise, some of the companies end up earning high profits, others low profits while others make high losses. It is on the basis of this purview that the current study sought to assess corporate restructuring, firm characteristics and financial performance of companies listed at the Nairobi Securities Exchange, Kenya. The specific objectives were to; determine the effect of financial restructuring and portfolio restructuring on the financial performance of companies listed at the Nairobi Securities Exchange. The study also sought to determine the moderating effect of firm characteristics on the relationship between corporate restructuring and the financial performance of companies listed at the Nairobi Securities Exchange. A positivism research philosophy was adopted. The study adopted an ex-post facto research design. The target population was 59 companies listed at Nairobi Securities Exchange. The sample size was 51 companies which were selected using simple random sampling technique. The study used only secondary data for the period between 2017 and 2021. The data collected was analyzed using both descriptive and inferential statistics. Stata version 17.0 aided in analysis. The results were as follows; financial restructuring ($\beta = 0.7510$, $p=0.000$); portfolio restructuring; ($\beta = 0.3581$, $p=0.000$); leverage ($\beta = -0.0593$, $p= 0.000$) and firm size ($\beta =0.2850$, $p= 0.5113$). The study concluded that corporate restructuring has a significant positive effect on financial performance. The study recommended that firms should continue to practice corporate restructuring as it contributes to improvement in financial performance.

Keywords- Corporate Restructuring, Firm Characteristics, Financial Performance, Kenya

I. INTRODUCTION

Companies around the globe are supposed to be financially viable so as to maintain their listing on the securities exchange [1]. A precursor for the going concern of any company in both developed and developing countries is growth in profits or reduction in losses which are attributes of good financial performance [2]. The company's listed on the securities exchange are supposed to evaluate their financial performance so as to measure their overall financial status over a given period of time [3]. Financial performance is of paramount importance to organizations because it provides an overall assessment of how well a company is doing with regard to its mission, vision and objectives [4]. It goes without mentioning that, companies as well as other business entities faces a myriad of challenges within the business environment, these calls upon organization leaders to use financial performance as one of the measures used to guide decision making on whether any changes are to be made [5]. This is because assessment of financial performance identifies the financial strengths and weaknesses of the company's by establishing relationships between the items of the financial position and income statement [6].

In the last one decade, [7], posits that several corporate failures among listed companies have occurred throughout out the world. The annual flow of failures of companies has increased sometimes due to the periods of financial crisis. Delisting is not a new or rare occurrence; more than 7,300 firms have been delisted from US stock exchanges from 1995 to 2015, with nearly half of these being involuntarily delisted by their respective exchanges [8]. Also, in 2008, the New York Stock Exchange (NYSE) and the NASDAQ delisted 139 firms which had fallen into a financial crunch [8]. Further, corporate failure has occurred in other companies such as Enron Corp, WorldCom, Xerox, Lehman Brothers, AIG, and Freddie. In Ghana, recent cases of corporate failures include the Gateway Broadcasting Services, Ghana Co-operative Bank, Bank for Housing and Construction, National Savings and Credit Bank, acquisition of Merchant Bank Ghana Ltd by Fortiz Private Equity Fund Ltd.

As noted by [9], the reasons cited for the sale of Merchant Bank in Ghana was poor financial performance attributed to solvency and liquidity challenges faced by the bank. [3], opine that an early warning signal of probable corporate failure would enable both management and investors to take restructuring as a preventive measure against

corporate failure. In Kenya, some of the listed companies continue to experience poor financial performance witnessed by the increase in delisting of companies and the placement of some firms under statutory management. Several firms have been delisted from the stock market which include; Mumias Sugar Company, Eveready, Lonrho East Africa, Pearl Dry Cleaners, East African Packaging, Uchumi Supermarkets, Kenya Corporative Creameries and CMC Kenya Ltd., among others [10]. In order for listed companies to effectively assess their financial performance, they are supposed to put in place appropriate measures of financial performance. [11], opine that restructuring is a prerequisite for revamping financial soundness of companies in financial crunch.

As opined by [12], corporate restructuring is the process of breaking down or dismantling the structural confines within an organization in order to achieve certain predetermined goals. It involves selling off some parts of the business and purchasing others so as to revitalize or change the company's practices. According to [13], corporate restructuring comprises of reorganization of assets through acquisitions and sell-offs, creating new ownership as a result of spin-offs, split-ups and equity carve-outs, reorganizing financial claims as a result of adopting exchange offers, leveraged recapitalization, financial reorganization and liquidation and other strategies such as joint ventures, leveraged buyouts among others. Companies are supposed to put in place robust corporate restructuring strategies so as to realize good financial performance [14]. Corporate restructuring is one of the strategies that can help companies overcome poor financial performance, achieve operational efficiency and develop new strength in the capital market [15].

As elucidated by [16], there is no single specific reason as to why a company undergoes restructuring because circumstances leading to restructuring differ among companies. As opined by [17], the essence of restructuring by companies is to cut down on expenses, focus more on the core activities and enhance their financial performance, avoid bankruptcy, avoid being put under receivership, liquidation, insolvency and forceful takeovers. Also, [18], posits that restructuring is undertaken so as to increase the market share, because of poor and declining profits, poor performing divisions, financial distress, so as to readjust corporate strategy, reduce expenses and also due to poor corporate governance and over borrowing. Additionally, [19], revealed that since the business competition is high in this century and because of this companies undertake restructuring and reorganization in order to keep up in their industries. As noted by [20], the use of corporate restructuring produces massive efficiencies in regard to increased financial performance.

According to [16], corporate restructuring is not only a tool to help salvage poor performing companies but also as a means to even better results for companies that have adequate results. It is a solution for large companies such as multinationals that have subsidiaries or branches to have adequate overall consolidated results. The authors note that a company may be performing well in the region where it is headquartered but the subsidiaries left lagging behind. In such a scenario, corporate restructuring may therefore be a solution to bringing all the company's decisions at par. As much as corporate restructuring is advocated for as the best approach for improvement of financial performance, [19], reveals that it is riddled with challenges which sometimes compromise the results or goals set out prior to commencement of the restructuring exercise. The main forms of corporate restructuring are financial, portfolio and organizational restructuring [21]. The corporate restructuring strategies adopted in this study include both financial and portfolio corporate restructuring strategies.

Problem Statement

Financial performance measures whether a corporate entity is on the path of corporate success. Some of the companies listed at the Nairobi Securities Exchange in Kenya are no longer offering services due to inability to raise sufficient financial resources to meet their financial obligations. According to [22], share prices of some listed companies have also fallen below the par value, putting investors' wealth at risk. [24], posits that corporate restructuring should prevent firms from delisting, failure, illiquidity, low profitability margins by providing an opportunity to recapture competitive advantage and gain profits by shifting around modes of corporate restructuring. However, this has not been the case at all times, for example companies such as Atlas Africa Industries Ltd, Athi River mining, Deacons (EA) PLC and Kenol Kobil PLC, Unilever, Access Kenya, Rea Vipingo Marshall East Africa Ltd, Hutchings Biemer and A. Baumann have either been suspended or delisted from the Nairobi Securities Exchange even after undertaking restructuring.

Delisting and suspension from trading dents investor confidence due to inability to attract new listings. Some of the listed companies have recorded better financial results after restructuring while others have not. Therefore, this study intends to find out whether the firm specific characteristics influence the relationship corporate restructuring has on financial performance. Empirically, few studies exist that have assessed the moderating effect of firm characteristics on the relationship between corporate restructuring and financial performance of companies listed at the Nairobi Securities Exchange. For example, [24], examined the effect of Bank restructuring on financial performance of commercial banks in Kenya. The researcher recommended that, a further study should be conducted to determine the appropriate moderating variables that affect the relationship between Bank restructuring and financial performance. Therefore, this study sought to fill this knowledge gap by identifying the moderating variables that affect the relationship between corporate restructuring and financial performance of not only Banks but all the companies listed at the securities Exchange. The specific objectives of the study included;

to determine the effect of financial restructuring on the financial performance of companies listed at the Nairobi Securities Exchange in Kenya and also to establish the effect of portfolio restructuring on the financial performance of companies listed at the Nairobi Securities Exchange in Kenya.

II. RELATED WORK

Financial Restructuring and Financial Performance

[25], assessed financial restructuring and its impact on operating performance in the energy sector in India. The purpose of this study was to analyze the impact of restructuring on operating performance of restructured energy sector firms in India. This study included a sample of 43 firms of energy sector and related sub-sectors in India who had undergone financial restructuring. This study involved a two-stage methodology. In the first part, paired sample t - test was used to investigate the significant differences in various financial ratios in the pre- and post-restructuring period. In the second part of methodology, the focus was given to check the impact of restructuring on the operating performance of the companies in the post-restructuring period using various techniques like factor analysis, correlation matrix, and multiple regression analysis. The results showed that there was a significant impact of financial restructuring on operating performance of firms in all the factors except turnover.

[26], examined the effect of corporate financial restructuring on the financial performance corporates in India. The data was collected from secondary sources on six companies that have gone into corporate financial restructuring for a period of 3 years prior to the year of corporate financial restructuring and 3 years after the corporate financial restructuring. Data was collected from Vandana Gupta Capitaline and websites of companies. The author identified 6 companies which have gone into corporate financial restructuring and analyzed the financial performance of these companies 3 years prior to the year of going to corporate financial restructuring and 3 years after the year of corporate financial restructuring. A set of 10 financial ratios are examined as indicators of financial performance. These ratios are taken on the basis of assessing the liquidity, profitability, solvency positions of the company and additional ratios are included to assess the operational efficiency of the companies. The methodology adopted for the study is t-test. The findings reveal that the performance of the company does not always improve as a result of undergoing financial restructuring. Financial restructuring was not operationalized using the changes in total debt to total equity ratio which the current study sought to incorporate.

[27], conducted a study on financial restructuring and non-financial performance of Pan Africa Insurance Holding Company, in Kenya. The study used a cross sectional research design in data collection. A target population of 60 respondents was considered in the study. A sample size of 20 respondents was used in the study. Stratified and simple random sampling was used in the collection of data from the sample. Factor analysis was used to test for validity and the test-retest method was used to test for reliability. Simple linear regression model and Karl Pearson product moment correlation were the inferential statistics metrics adopted in the study. The study found that financial restructuring has a significant effect on non-financial performance of Pan Africa Insurance Holdings Company. Financial restructuring improves the liquidity, increases the cash flows for a sick insurance company and reduces the cost of capital for healthy insurance companies.

[28], researched on the relationship between financial restructuring and financial performance of commercial banks in Kenya. The study used a Positivism research philosophy and descriptive and inferential causal research design. The study population was 44 commercial banks operating in Kenya. The sample size of the study was 39 banks licensed to do banking business in Kenya. Data was collected from the audited financial statements of the study banks using a standardized data collection sheet. The longitudinal panel data obtained covered a period of thirteen years for the period 2002 to 2014. Data on financial restructuring was analyzed using descriptive statistics such as mean, standard deviation, skewness and kurtosis while the relationship between the variables was established using hierarchical regression analysis. The study found that financial restructuring had a positive significant effect on financial performance of commercial banks in Kenya. Companies from other sectors were not considered in their study which the current study seeks to incorporate.

Portfolio Restructuring and Financial Performance

[29], researched on product-market uncertainty, portfolio restructuring, and performance. The author investigated whether portfolio restructuring undertaken in response to changes in product-market uncertainty had implications for financial performance. A model that integrates information-processing and resource-based theories was applied to data from a panel of 168 Fortune 500 companies. Secondary data was the main source of data and it was obtained from the individual 168 Fortune 500 companies. The study findings were presented using both inferential statistics and descriptive statistics. Inferential statistics adopted in the study were correlation analysis and regression analysis while the descriptive statistics used in the study were mean and standard deviation. The results of the study indicated that portfolio restructuring actions influenced the financial performance of the companies.

[30], assessed the effect of portfolio restructuring on return on equity of financially distressed commercial banks in Kenya. This study employed a longitudinal research design. The target population comprised of 24 financially distressed commercial banks in Kenya that restructured their assets during the period 1992 -2016. The study employed secondary data extracted from the audited

financial statements and annual reports of the commercial banks over the 25-year period, 1992 to 2016. The unbalanced panel data regression model was adopted in data analysis. Restructured loans, non-performing assets and written off assets were the sub constructs of portfolio restructuring while ROE was the dependent variable. The study found that portfolio restructuring had a positive and significantly effect on return on equity of financially distressed commercial banks in Kenya. Changes in fixed assets to total assets ratio was not considered in the study which the current study sought to incorporate.

[31], researched on portfolio restructuring strategy and the performance of commercial banks in Kenya. The study was delimited to Kenya Commercial Bank. The study was guided by Contingency theory, Resource Based Theory and Transaction Cost Theory. The study adopted a descriptive design and it targeted 235 employees in KCB headquarters in Nairobi. The sample size was 71 respondents selected using stratified random sampling technique. The primary data was collected through use of a questionnaire. A panel of peers was used to check for the validity of the research instrument while reliability of the questionnaire was tested through Cronbach's alpha test. The data collected was analyzed through descriptive and inferential statistics. The study found that portfolio restructuring strategy has a positive and significant relationship with performance of the bank.

Corporate Restructuring, Firm Characteristics and Financial Performance

[32], opine that the degree to which a firm uses debt over equity in financing their activities varies from one company to another. When the companies' debt is high, it is an indication of high risk faced by the company and its impact on the shareholders as it dilutes their share value. On the same note, [33], revealed that the number of years a company has been operating in the market since it was incorporated is an important determinant of its financial performance. On the other hand, [34], opined that companies that are young are more dynamic and more volatile in their growth experience than older companies. Moreover, [35], enunciates that companies have different levels of profitability which informs the extent to which a firm restructures its operations. It is construed that companies that are mature learn more precisely their market positioning, cost structures and efficiency levels which in turn leads to good financial performance. [24], postulated that firm characteristics influence the extent, type and when restructuring exercise is undertaken by the company which in turn influences its financial performance.

[36], [37], opine that firms undergoing restructuring and that are financially weak prior to or during the restructuring year, are fundamentally different from those that are in a healthy financial condition. A restructuring made by financially weak firm may indicate that it is having difficulties generating enough demand for its products, staying cost-competitive in the market and/or maintaining its profitability. According to the researchers it is to be expected that firms that are financially healthy are more likely to survive a bad economy than firms that are in an unfavorable financial condition. Therefore, they concluded that firms' profitability during the year of restructuring as a factor that affects company's financial performance. Other types of firm characteristics were not considered in their study. The current study sought to incorporate firm size and leverage as moderating variables as it seeks to find out the moderating effect of firm characteristics on the relationship between corporate restructuring and financial performance.

[38], researched on firm characteristics, corporate restructuring and performance in Malaysia. Ninety-three debt restructuring firms and ninety-six portfolio restructuring firms listed on the Bursa Malaysia between 2000 and 2012 firms were selected as the final samples. The findings of the study showed that the presence of board of directors in the ownership of the firm prior to debt restructuring and portfolio restructuring did not support the argument that when board of directors become owners, the ownership would lead to improved performance of the firm in terms of return on total assets (ROA) and return on operating cash flow. Also, prior to debt restructuring, institutional ownership and concentrated ownership had a negative relationship on performance. Prior to portfolio restructuring, institutional ownership had significant positive relationship while concentrated ownership had negative relationship on performance. The findings also revealed that the ownership structure had no significant relationship with firm's performance following debt restructuring but had significant relationship with performance following portfolio restructuring. The study found that debt ratio had a negative effect on firm's performance prior to debt restructuring and portfolio restructuring. Debt restructuring and portfolio restructuring did not improve firm's performance with increased use of debt.

[24], researched on bank restructuring, financial services, firm characteristics and financial performance of commercial banks in Kenya. A positivism research philosophy was adopted in the study. The study used a descriptive research design and secondary data was the main source of data. The study period was between 2002 and 2014. The population of the study was 44 commercial banks. The research was a census of all the 43 commercial banks registered under the banking act and one mortgage company. Data on the study variables was obtained from the financial statements. Data was presented using both descriptive and inferential statistics. Organizational restructuring had a significant negative effect on financial performance when moderating variables were included in the model. Capital restructuring had a positive significant effect on financial performance when firm size was used as a moderating variable in the study. The firm characteristics considered in the study was size and ownership. The current study sought to incorporate more moderating variables such as leverage as it seeks to assess

the effect of corporate restructuring and financial performance of companies listed at Nairobi Securities Exchange in Kenya. Literature reviewed led to the development of the following hypotheses statements.

***$H_0$1**: Financial restructuring has no significant effect on the financial performance of companies listed at the Nairobi Securities Exchange in Kenya.*

***$H_0$2**: Portfolio restructuring has no significant effect on the financial performance of companies listed at the Nairobi Securities Exchange in Kenya.*

***$H_0$3**: Firm characteristics have no significant moderating effect on the relationship between corporate restructuring and financial performance companies listed at the Nairobi Securities Exchange in Kenya.*

III. METHODOLOGY

Research philosophy is a belief about the way in which data about a phenomenon should be gathered, analyzed and used [38]. A positivism research philosophy will be adopted. The choice for the positivism research philosophy is supported by the principle underlying this philosophy. According to the principles of positivism, the philosophy depends on quantifiable observations that lead themselves to statistical analysis [39]. With regard to the progression of this study, it was guided by the hypotheses in attempt to show the association between independent variable and dependent variable. All these attributes of the study apply for the positivism research philosophy hence its choice as the ideal research philosophy. This study adopted an ex-post facto research design. The study target population was 59 companies listed at the Nairobi Securities Exchange. The sample size was 51 companies determined based on [14] sample size determination formula. The study adopted simple random sampling technique. The study used only secondary data where a desk top review was done with the aid of a secondary data collection sheet. The study used panel data for the period between 2017 and 2021. The data was analyzed using both descriptive and inferential statistics. STATA version 17.0 statistical software aided in the analysis. The empirical models were as follows;

Pooled model:

$$ROA_{it} = \beta_0 + \beta_1 FR_{it} + \beta_2 PR_{it} + \beta_3 FS_{it} + \beta_4 LEV_{it} + \varepsilon_{it} \quad (1)$$

Fixed model:

$$ROA_{it} = \beta_0 + \beta_1 FR_{it} + \beta_2 PRit + \beta_3 FS_{it} + \beta_4 LEV_{it} + u_{it} \quad (2)$$

Random model:

$$ROA_{it} = \beta_0 + \beta_1 FR_{it} + \beta_2 PR_{it} + \beta_3 FS_{it} + \beta_4 LEV_{it} + u_{it} + \varepsilon_{it} \quad (3)$$

Where,

ROA_{it} refers to return on assets of company i at time t.
FR_{it} refers to financial restructuring of company i at time t.
PR_{it} refers to portfolio restructuring of company i at time t.
FS_{it} refers *to* size of the company i at time t.
LEV_{it} is the financial leverage of a company i at time t.
β_0- intercept coefficient of company i at time t.
β_1, β_2, β_3, β_4 - row vectors of slope coefficient of regressors
ε_{it} Stochastic error term of company i at time t
u_{it} is the error term of company i at time t

To determine the nature of the panel data and determine the best model for analysis, diagnostic test for normality of residuals, serial correlation, heteroscedasticity and random or fixed effects were be carried out. Jacque Bera test (JB) was used to test normality of residuals. If P>0.05 then this implied that the normality of residuals was upheld. Heteroskedasticity was tested using Breusch-Pagan test. The null hypothesis was that residuals are homoskedastic. Therefore, if the F statistic strongly rejects the null at least at 95% confidence level, this implied presence of heteroskedasticity. Autocorrelation was tested using the Durbin-Watson Test. The null hypothesis in Durbin-Watson test was that there is no serial correlation [41]. If the d-statistic is more than 0.05, the study fails to reject the null hypothesis at 95% confidence interval and conclude that the errors in different observations are not correlated with each other (Durbin & Watson, 1971). The variance inflation factor (VIF) was used to test for multicollinearity problems. A VIF greater than 10 indicates significant multicollinearity [42]. The Hausman test was done to detect endogenous regressors in the regression model. The H_0 adopted in this study was that random effects was the preferred model while the H_1 was that fixed effects was the preferred model. The null hypothesis was rejected if $p<0.05$.

IV. RESULTS & DISCUSSION

Table 1 illustrates the descriptive statistics of the independent, moderating and the dependent variables of this study as per the findings drawn from the audited annual reports of 51 companies listed at the Nairobi Securities Exchange for the period 2017 to 2021.

Table 1: Descriptive statistics

Variables	Mean	Std. deviation	Minimum	Maximum
Total Debt/Total Equity	21.44	3.42	8.00	21.00
Fixed Assets/Total Assets	22.52	3.18	5.00	19.00
Firm size	23.24	4.03	8.00	35.00
Leverage	22.92	3.13	8.00	20.00
ROA	21.71	3.85	6.00	21.00

The total debt to total equity had a mean value of 21.44 with a range from 8.00 to 21.00. Fixed assets to total assets had a mean value of 22.52 with a minimum of 5.00 and a maximum of 19.0. Firm size had a mean of 23.24

with a range from 8.00 and 35.00 which expresses the high standard deviation (SD = 4.03). Leverage had a mean of 22.92 with a range between 8.00 and 20.00. ROA had a mean of 21.71 with a range from 6.00 and 21.00. Correlation analysis results were as follows;

Table 2: Correlation analysis

		ROA	**FR**	**PR**	**FS**	**LEV**
ROA	Pearson Correlation	1				
	Sig. (2-tailed)					
FR	Pearson Correlation	.780*	1			
	Sig. (2-tailed)	.000				
PR	Pearson Correlation	.693*	.602**	1		
	Sig. (2-tailed)	.000	.000			
FS	Pearson Correlation	.751*	.590**	.670**	1	
	Sig. (2-tailed)	.000	.000	.000		
LEV	Pearson Correlation	-.795**	-.581**	-.813**	-.709**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

Financial restructuring (FR) has a strong positive significant relationship with financial performance (ROA) at 5% level of significance (r = 0.780, p< 0.05). Portfolio restructuring (PR) has a significant positive relationship with financial performance (ROA) (r = 0.693, p < 0.05). Firm size (FS), (r = 0.751, p <0.05) was significantly positively associated with financial performance (ROA). Leverage (LEV) was significantly negatively associated with financial performance (ROA) (r = -0.795, p<0.01).

Pooled Ordinary Least Square Model Results

It had been hypothesized as per the model (1) that there are no groups or individual effects between the listed companies. The pooled OLS model was performed to estimate the model (1). The findings were as follows.

Table 3: Pooled Ordinary Least Square Model Results

Variable	**Co-efficient**	**Std. Error**	**t-statistic**	**Prob.**	**95% Confidence Interval**	
C	0.5088	0.0144	1.77	0.0065	0.0511	0.7150
FR	0.4053	0.0377	1.46	0.0008	0.0305	0.0539
PR	0.2155	0.0525	1.65	0.0000	0.175	0.4550
FS	0.0611	0.0450	1.99	0.0070	0.0130	0.0343
Lev	-0.0432	0.0035	-1.83	0.0000	-0.0131	-0.152
No. of observations	255	27.51		R^2		0.5905
F (4, 255) = 9.85				Adj. R^2		0.5721
Prob > F 0.0000				Root MSE		0.02971

The adjusted R-squared is 57.21%. This value explains that the total variability in return on assets has been explained by the four variables, and the rest of the 42.79% is not explained in model 1. Furthermore, F statistics (F (4,255) = 9.85, Prob > F = 0.000). The pooled OLS model was therefore significant at 5% to explain financial performance predictors. It was further noted that financial restructuring (β =0.4053, p < 0.05), portfolio restructuring (β = 0.2155, p < 0.05), firm size (β = 0.0611, p < 0.05) have a significant positive effect on return on assets. But leverage has a significant negative effect on return on assets (β = -0.0432, p < 0.05).

Multicollinearity Problem Detection

Variance inflation factor was estimated among the independent variables and the results are presented in Table 4. The VIF measures the extent the variance of the estimated regression coefficients is inflated as a result of being related to the other independent variables [43].

Table 4: Multicollinearity

	VIF
Financial restructuring	1.27
Portfolio restructuring	1.53
Firms size	1.09
Leverage	1.15

Multicollinearity problem is detected when any of the predictor variables have a VIF value above ten [39]. The VIF for all the explanatory variables was between 1.09 and 1.53, which are less than ten. This implies that there were no serious multicollinearity problems in the study.

Fixed Effect Model

The coefficients were assumed to change among the units as well as time between 2017 and 2021. The fixed model considers that the individual effects of the companies as in fixed effect. If there is any unobserved heterogeneity, it will be deducted in the fixed effect estimation [44]. The findings were as follows;

Table 5: Fixed Effect Model Results

Variable	**Co-efficient**	**Std. Error**	**t-statistic**	**Prob.**	**95% Confidence Interval**	
C	0.0551	0.0035	1.85	0.000	0.0361	0.0575
FR	0.7510	0.1745	2.51	0.000	0.4125	1.0140

PR	0.3581	0.1990	2.65	0.000	0.1457	0.3147
Firm size	0.2850	0.0350	0.180	0.5113	0.0278	0.0540
Leverage	-0.0593	0.0225	-1.73	0.000	-0.0423	-0.0461
No. of observations	255		R^2 within	0.1830	Sigma_u = 0.03515	
F(4, 174) = 3.57			R^2 between	0.1557	Sigma_e = 0.03000	
Prob > F 0.0000			R^2 Overall	0.1475	Rho= 0.5341	
F test that all u_i=0:		F (139,104) =	10.30	Prob> F = 0.0000		

Table 5 illustrates that the overall R-squared value is 0.1475 which implies that 14.75% of the total variation in return on assets is explained by the four variables included in the fixed-effect model. The value of F (4, 174) = 3.57 at a 5% level of significance. This explains that the model is goodness fit. The rho value of 0.5341 reveals that 53.41 % of the variances have been explained because of the differences across panels. Out of the 4 variables, 3 variables (FR, PR & LEV) had a significant relationship with ROA. Financial restructuring has a significant positive effect on ROA ($\beta = 0.7510$, $p < 0.05$). Portfolio restructuring has a significant negative effect on ROA ($\beta = 0.3581$, $p < 0.05$). Leverage had a significant negative effect on ROA ($\beta = -0.0593$, $p < 0.000$) while firm size had a non-significant positive effect on ROA ($\beta = 0.2850$, $p > 0.05$). This study was meant to determine the effect of corporate restructuring on financial performance. It was estimated using the pooled OLS and fixed-effect model. The findings show that both models are significant to explain the effect. Both models were compared to determine which model was most suitable to determine the effect of corporate restructuring on ROA. F-test results had a p-value of 0.0000. This implies that the fixed effect model was more suitable to determine the effect of corporate restructuring on ROA.

Random Effect Regression Analysis

The study assumes that between the units considered in this study, constant coefficients exist between the units considered in this study and do not differ. The constant is to be estimated randomly thorough a random effect model in order to get unconsidered variables in this study. The random effect regression analysis findings were presented Table 6.

Table 6: Random Effect GLS Regression

Variable	Co-efficient	Std. Error	t-statistic	Prob.	95% Confidence Interval	
C	0.1318	0.1575	1.75	0.000	0.0361	0.0575
FR	0.4500	0.003	0.83	0.00	0.412	1.014
		5		3	5	0
PR	0.5677	0.1064	2.37	0.000	0.1457	0.3147
Firm Size	0.0289	0.0250	1.40	0.250	0.0278	0.0540
Leverage	-0.0617	0.0144	2.55	0.000	-0.0423	-0.0461
No. of observations	255		R^2 within	0.210	Sigma_u = 0.04150	
Wald Chi2(4) 56.70			R^2 between	0.196	Sigma_e = 0.00370	
Prob > Chi2 0.0000			R^2 Overall	0.186	rho= 0.4508	

Random effect regression was adopted to identify the ROA determinants. The findings of the random effect model revealed that, financial restructuring ($\beta = 0.4500$, $p < 0.05$), portfolio restructuring ($\beta = 0.5677$, $p < 0.05$), firm size ($\beta = 0.0289$, $p < 0.05$) and leverage ($\beta = 0.0144$, $p < 0.05$) have significant effect on ROA. In order to evaluate whether pooled OLS or random effect model was suitable for explaining ROA determinants, the Breusch and Pegan Lagrangian Multiplier test was done.

Table 7: Breusch and Pegan Lagrangian Multiplier Test for Random Effects

Estimated results	Var	Sd=sqrt(var)
ROA	0.0095	0.0237
E	0.0019	0.0481
U	0.0053	0.0844
Test: Var (u) = 0		
Chibar2(01) =246.44		
Prob> chibar2= 0.0000		

The study hypothesized that H_0 = Pooled effect exists, H_1 = random effect exists. Findings of the Breusch and Pegan Lagrangian Multiplier revealed that Prob > chibar2 = 0.0000. Therefore, the null hypothesis was rejected and the alternative hypothesis accepted.

Hausman Test

Hausman test was done so as to determine the model that was most appropriate to explain the determinants of ROA. The findings were presented in Table 8.

Table 8: Hausman Test

Variable	Fixed (b)	Random (B)	Difference (b-B)	Sqrt (Diag(v_b-v_B)
FR	0.0035	0.0041	0.0006	0.0001
PR	0.5408	0.5677	0.0269	0.0321
FS	0.0055	0.0285	0.023	0.0191
Leverage	-0.0956	-0.0617	-0.0339	0.0124
Chi2(4) = (b-B)'[(v_b-v_B) ^ (-1)] (b-B) = 14.33				
Prob> chi2= 0.0203				

In the study, it had been hypothesized that H_0 = random effect exists, and H_1= random effect does not exist. The findings of Hausman test results were as follows

(Prob>chi2 = 0.0203), therefore the null hypothesis was rejected that the random effect model exists to explain the determinants of ROA. The fixed-effect model was therefore explained further:

Table 10: Robust Standard Error

Variable	**Co-efficient**	**Std. Error**	**t-statistic**	**Prob.**	**95% Confidence Interval**	
C	0.1664	0.1010	1.55	0.000	0.5290	1.1340
FR	0.0019	0.0035	1.37	0.000	0.0110	0.0531
PR	0.2704	0.2040	1.72	0.005	0.0670	0.4757
Firm size	0.0028	0.0322	1.10	0.533	0.0441	0.0750
Leverage	-0.2554	0.0217	2.37	0.000	-0.0042	-0.0690
No. of observations	185		R^2 within	0.1245	Sigma_u = 0.0581	
F (4, 141) 2.27			R^2 between	0.1740	Sigma_e = 0.0450	
Prob > F 0.0000			R^2 Overall	0.1575	rho= 0.5339	

When assessing the heteroskedasticity problem in the fixed effect model, the study found similar set of coefficients and set of p-values. The study concluded that even though the model is affected by heteroskedasticity, it did adversely affect the observed empirical findings. Cluster robust standard error was observed to control for unknown heteroskedasticity within the panel autocorrelations in addition to the robust standard error test presented in Table 10. The study found that the level of significance that was exhibited by the predictor variables to influence ROA was similar in the fixed effect model and the cluster robust standard error.

Table 10: Cluster Robust Standard Error

Variable	**Co-efficient**	**Std. Error**	**t-statistic**	**Prob.**	**95% Confidence Interval**	
C	0.0551	0.0035	1.85	0.000	0.0361	0.0575
FR	0.7510	0.1745	2.51	0.000	0.4125	1.0140
PR	0.3581	0.1990	2.65	0.000	0.1457	0.3147
Firm size	0.2850	0.0350	0.180	0.5113	0.0278	0.0540
Leverage	-0.0593	0.0225	-1.73	0.000	-0.0423	-0.0461
No. of observations	255		R^2 within	0.1830	Sigma_u = 0.03515	
F (4, 174) = 3.57			R^2 between	0.1557	Sigma_e = 0.03000	
Prob > F 0.0000			R^2 Overall	0.1475	Rho= 0.5341	

In this study, the fixed-effect model was considered to be the most appropriate model that was used to explain the effect of corporate restructuring on financial performance. The fixed-effect model revealed that financial restructuring has a significant effect on ROA. The null hypothesis ($H_0$1) is rejected and the study concludes that financial restructuring has a significant effect on ROA. These findings resemble that of [25] that financial restructuring has a significant effect on ROA. Portfolio restructuring had a significant effect on ROA. $H_0$2 was rejected and the study concluded that portfolio restructuring had a significant effect on ROA. The findings are in agreement with that of [30], that portfolio restructuring has a significant effect on ROA. Leverage was found to have no significant effect on ROA. Firm size had a significant positive effect on ROA. The findings resemble that of [23], that leverage has a significant effect on ROA. Firm size had a significant positive effect on ROA The findings resembles that of [37] that firm size has positive significant effect on ROA.

V. CONCLUSIONS AND FUTURE SCOPE

The study concluded that corporate restructuring has a significant positive effect on financial performance. Both financial and portfolio restructuring improves the financial performance of companies listed at the Nairobi Boer. Firm size and leverage moderate the relationship between corporate restructuring and financial performance. The fixed-effect model is the most appropriate model that is used to explain the effect of corporate restructuring on financial performance. The study recommended that firms should continue to practice corporate restructuring as it contributes to improvement in financial performance. Firms should adopt both financial and portfolio restructuring when restructuring. The proportion of debt to equity in a firms' capital structure should be closely monitored so as to avert any adverse effects on financial performance. Firms should also monitor the proportion of fixed Assets to Total Assets as it affects financial performance.

ACKNOWLEDGMENT

JKUAT, thanks for the opportunity to pursue a doctorate degree in finance. Mr. and Mrs. Kajirwa, thanks for unwavering moral support that has made me become a pillar in the academic arena. Vivian Harwood, Ashley Harwood, Churchill, Beverlyne and Joyner Kajirwa, thanks for your moral support.

REFERENCES

[1]. M.D. Moghadam, M. Jafari, "The role of financial leverage in the performance of companies listed in the stock exchange." *Indian Journal of Natural Sciences,* Vol. **5**, Issue. **30**, pp. **7402-7411, 2015.**

[2]. L.N. Anyona, "Effects of corporate restructuring on performance of insurance companies in Kenya." *Journal of Finance & Accounting,* Vol. **3**, Issue. **1**, pp. **1015-1021, 2017.**

[3]. M.W.E.B. Glautier, "Underdown, *Accounting theory and practice."* (7th ed.). **Edinburgh**: Pearson Education Ltd., 2011.

[4]. J. Abor, "The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana." *The Journal of Risk Finance,* Vol. **6**, Issue. **5**, pp. **438-445, 2005.**

[5]. S.R.Y. Murthy, "Working capital, financing constraints and firm financial performance in GCC countries." *Information Management and Business Review,* Vol. **7**, Issue. **3**, pp. **59-66, 2015.**

[6]. A.D. Chandler, "*Strategy and structure: chapters in the history of the industrial Enterprise*." **United Kingdom**: MIT Press, 2015.

[7]. B.J. Sami, "*Financial distress and bankruptcy costs*." In H. Dincer & U. Hacioglu. Global strategies for banking and finance. **United States**: IGI Global, 2013.

[8]. K. Plourd, "*Delisting dilemmas*." CFO magazine, February 1. Retrieved from www.cfo.com/article.cfm/13012778/c_13015052, 2019.

[9]. K.O. Appiah, "Corporate failure prediction: some empirical evidence from listed firms in Ghana." *China-USA Business Review,* Vol. **10**, Issue. **1**, pp. **32-41, 2011**.

[10]. J.W. Gathecha, "Effect of firm characteristics on financial distress of non-financial listed firms at Nairobi Securities Exchange, Kenya." *Global Journal of Advanced Research,* Vol. **5**, Issue. **2**, pp. **101-108, 2016.**

[11]. M.A. Gharaibeh, I. I. S. M., Sartawi, D. Daradkah, "The applicability of corporate failure models to emerging economies: Evidence from Jordan." *Interdisciplinary Journal of Contemporary Research in Business,* Vol. **5**, Issue. **4**, pp. **313-325, 2013.**

[12]. D. Vance, "*Corporate restructuring: from cause analysis to execution*." **Berlin**: Springer Science & Business Media, 2010.

[13]. J.F. Weston, J.A. Siu, B.A. Johnson, "*Takeovers, restructuring and corporate governance."* (3rd ed.). **US**: Prentice Hall, 2017.

[14]. T.M. Hoenig, C.S. Morris, "*Restructuring the banking system to improve safety and soundness."* Federal Deposit Insurance Corporation and Federal Reserve Bank of Kansas City. 2012.

[15]. M. Blatz, K.J. Kraus, S. Haghani, "*Corporate restructuring: Finance in times of crisis*." **Berlin**: Springer Science & Business Media, 2016.

[16]. S.S.F.U. Rehman, "Relationship between financial leverage and financial performance: empirical evidence of listed sugar companies of Pakistan." *Global Journal of Management and Business Research,* Vol. **13**, Issue. **8**, pp. **33-40, 2013**.

[17]. N. Alias, M.H. Yaacob, N. Jaffar, "Governance, structure, corporate structure and performance." *Polish Journal of Management Studies,* Vol. **15**, Issue. **1**, pp. **117-123, 2017.**

[18]. S.C. Gilson, "*Creating value through corporate restructuring: Case studies in bankruptcies, buyouts, and breakups."* (2nd ed.). **New York**: John Wiley & Sons, 2010.

[19]. N. Kumar, T. Venai, "Financial restructuring." *Journal of Economy & Finance, Business,* Vol **5**. Issue. **3, pp. 1-16, 2012.**

[20]. H.E. Bowman, H. Singh, M. Useem, R. Bhadury, "When does restructuring improve economic performance?" *Carlifornia Management Review,* Vol. **41**, Issue. **2**, pp. **751-759, 2009.**

[21]. CMA. "*The capital markets general regulations*.", 2018. Retrieved from https://www.cma.or.ke/

[22]. J. Anyanzwa, "*Troubled NSE-listed firms now put on watch list, risk suspension from trading*.", 2018. Retrieved from https://www.theeastafrican.co.ke/ business/Troubled-NSE-listed-firms-now-put-on-watchlist-risk-suspension/2560-4629734-javnjrz/index.html

[23]. M.A. Kithinji, "Bank restructuring, financial services, firm characteristics and financial performance of commercial banks in Kenya." *The International Journal of Business in Society,* Vol. **13**, Issue. **3**, pp. **236-248, 2017**.

[24]. S. Desai, O. Joshi, "Financial restructuring and its impact on operating performance in the Energy Sector in India." *Indian Journal of Finance,* Vol.**13**, Issue. **1**, pp. **155-163, 2019.**

[25]. V. Gupta, "Corporate debt restructuring and its impact on financial performance." *International Journal of Engineering Technology, Management and Applied Sciences,* Vol. **5**. Issue. **2,** pp. **160-176, 2017.**

[26]. H.K. Isabwa, M.W. Mabonga, "Financial restructuring and non-financial performance of Pan Africa Insurance Holding Company, in Kenya. *International Journal of Research in Finance and Marketing (IJRFM),* Vol. **9**. Issue. **4**, pp. **1-8, 2019.**

[27]. M.A. Kithinji, M. Mwangi, K. Litondo, M. Ogutu, "The relationship between financial restructuring and financial performance of commercial banks in Kenya." *International Journal of Economics, Commerce and Management,* Vol. **5**, Issue. **10**, pp. **84-98, 2017.**

[28]. D.D. Bergh, "Product-market uncertainty, portfolio restructuring, and performance: an information-processing and resource-based view." *Journal of Management*, Vol. **24**, Issue. **2**, pp. **135-155, 2018.**

[29]. R.K. Maroro, J.G. Kamau, J. Koima, "Effect of portfolio restructuring on return on assets of financially distressed commercial Banks in Kenya." *International Journal of Business and Processes,* Vol. **3**, Issue. **2**, pp. **1-11, 2018.**

[30]. C.C. Waithaka, L. Kimencu, "Portfolio restructuring strategy and the performance of commercial banks in Kenya: A case of Kenya Commercial Bank." *International Academic Journal of Human Resource and Business Administration,* Vol. **3**, Issue. **4**, pp. **270-290, 2018.**

[31]. M.D. Moghadam, M. Jafari, "The role of financial leverage in the performance of companies listed in the Stock Exchange." *Indian Journal of Natural Sciences,* Vol. **5**, Issue. **30**, pp.**7402-7415, 2015.**

[32]. A.W. Kaguri, "Relationship between firm characteristics and financial performance of life insurance companies in Kenya." *Journal of Management,* Vol. **2**, Issue. **2**, pp. **257-263, 2012.**

[33]. D. Mutunga, E. Owino, "Moderating role of firm size on the relationship between micro factors and financial performance of manufacturing firms in Kenya." *Journal of Finance and Accounting,* Vol. **1**, Issue. **2**, pp. **14-27, 2017.**

[34]. S. Hermuningsih, "Profitability, growth opportunity, capital structure and the firm value." *Bulletin of Monetary, Economics and Banking,* Vol. **16**, Issue. **2**, pp. **115-136, 2013.**

[35]. R.K. Atiase, D.E. Platt, S.Y. Tse, "Operating restructuring charges and post-restructuring performance." *Contemporary Accounting Research,* Vol. **21**, Issue. **3**, pp. **493-522, 2004.**

[36]. M.J. Gombola, G.P. Tsetsekos, "Plant closings for financially weak and financially strong firms." Quarterly *Journal of Business and Economics*, Vol. **31**, Issue. **3**, pp. **69-83, 2015.**

[37]. N. Alias, Firm characteristics, corporate restructuring and performance in Malaysia. *Journal of Finance & Accounting,* Vol. **1**. Issue. **1**, pp. **57-65, 2018**.

[38]. D.R. Cooper, P.S. Schindler, "*Business research methods*." **New York**: McGraw Hill, 2011.

[39]. R. Kumar, "*Research methodology: A step-by-step guide for beginners*." **Newcastle upon Tyne, United Kingdom**: Sage, 2018.

[40]. E. Slovin, "*Slovin's formula for sampling technique*." 2012. Retrieved from https://prudencexd.weebly.com/

[41]. J. Durbin, G.S. Watson, Testing for serial correlation in least squares regression. III. *Biometrika*, Vol. **58**, Issue. **1**, pp. **1-19, 1971.**

[42]. G. Tabachnick, L. Fidell, "*Using multivariate statistics"* (4th ed). **New York**: Harper Collins, 2001.

[43]. F.K. Al-Shawawreh, "The impact of dividend policy on share price volatility: Empirical evidence from Jordanian stock market." *European Journal of Business and Management*, Vol. **6**. Issue. **38**, pp. **133-143, 2014.**

[44]. A. Bayrakdaroglu, I. Ege, N. Yazici, "A panel data analysis of capital structure determinants: Empirical results from Turkish capital market." *International Journal of Economics and Finance*, Vol. **5**, Issue. **4**, pp. **131-140, 2013.**

AUTHORS PROFILE

Harwood Kajirwa Isabwa pursued (BBM-Accounting option) from Moi University, MBM-Finance from University of Eldoret (UoE) in 2011 and 2015 respectively. However, I am currently pursuing a doctor of philosophy degree in Finance from Jomo Kenyatta University of Agriculture & Technology (JKUAT). He has published more than 20 research papers in reputable international journals including Thomson Reuters (SCI & Web of Science). His main research work focuses on corporate finance, behavioural finance and public finance. He has more than 10 years of teaching experience and over 7 years of research experience.

