

# Portfolio Restructuring and Financial Performance of Listed Manufacturing Firms in Kenya

<sup>1</sup>Ngatia Winnie Murugi, <sup>2</sup>Ouma Denis, <sup>3</sup>Omondi Margaret Atieno,

<sup>1</sup>MBA Student Kaimosi Friends University, <sup>2</sup>Senior Lecturer Kaimosi Friends University, <sup>3</sup>Lecturer Kaimosi Friends University  
<sup>1</sup>Accounting and Finance,  
<sup>1</sup>Kaimosi Friends University, Kaimosi, Kenya  
<sup>1</sup>murugingatia11@gmail.com, <sup>2</sup>ouma\_denis@yahoo.com, <sup>3</sup>omondimargy@gmail.com,

**Abstract :** Manufacturing firms have put in place financial restructuring strategies such as adopting no portfolio in order to use internal funds to finance investments and thus reduce debt burden but despite that have continued to experience declined financial performance. The study sought to evaluate the effect of portfolio restructuring on financial performance of listed manufacturing firms in Kenya. The study was anchored on Markowitz modern portfolio theory. Longitudinal research design was embraced on a population of all the eight manufacturing firms listed on Nairobi Securities Exchange in financial years 2012 to 2021. Data was collected using secondary data collection sheet from audited financial statements and annual reports. Panel data was analyzed using STATA. Simple linear regression was used to establish the relationship between portfolio restructuring and financial performance. Pearson's product moment correlation established a positive and significant relationship between portfolio restructuring and financial performance. The regression coefficient estimate of portfolio restructuring was ( $\beta = 0.41$ ,  $t = -2.46$ ,  $p \text{ value} = 0.016$ ). It was concluded that portfolio restructuring had a positive and significant influence on financial performance of listed manufacturing firms in Kenya. It was hence recommended that manufacturing firms ought to minimize on debt usage and also look for the optimal mix of debt and equity in order to drive financial performance in the desired direction.

**Keywords:** portfolio restructuring, financial performance, manufacturing firms.

## I. INTRODUCTION

Portfolio restructuring entails modifying the asset register of the firm so as to reorganize the financial performance of firms. Deliberate efforts to modify the structure and operations of the firm have become one of the solutions for the survival of firms achieved by reorienting the financial structure, assets, and ownership to improve future cash flows [9]. Portfolio restructuring has become a global concern over the years as very profitable firms have collapsed in the manufacturing sector forcing them to restructure their operations. Unfortunately, the timing of the restructuring might be too late, resulting in non-improvement of the firms' affairs and, thus, consequent liquidation especially when facing financial distress [5].

Deliberate efforts to modify the structure and operations of the firm have become one of the solutions for the survival of firms achieved by reorienting the financial structure, assets, and ownership to improve future cash flows [9]. Manufacturing firms, being a capital-intensive sector, require sufficient liquidity to purchase state-of-the-art infrastructure and, therefore, resort to listing to obtain equity financing, which does not pose a repayment burden, unlike debt financing [11].

Most manufacturing firms have been falling due to undercapitalization and excessive investment in fixed assets, which are unproductive. Some of the firms have sold unproductive assets and traded debt for equity shares; however, they still experience problems of inadequate financing. Financial restructuring may alter the structure of assets by dissociating from underperforming investments or disinvesting from business divisions, which are not part of the main business to achieve financial performance [1]. In developing countries, financial restructuring has been used extensively to attain performance and to survive and is usually done when the present structures become unfit. Kenyan business environment has been facing changes over time, including massive competition, strategic alliances such as mergers, acquisitions, privatization, and economic liberalization, which has posed an impending danger to businesses in terms of insolvency and survival. This has made organizations adopt financial structures that minimize risks and ensure their firms' survival and profitability by restructuring their portfolios [6].

### 1.1 Statement of the Problem

Financial restructuring aims at attaining an optimal capital structure that ensures adequate stream of cash flows is available to be invested in portfolios that maximize returns. This therefore derives value for shareholders and thus maximize financial performance of firms. Despite adoption of various ways of financial restructuring by firms in the manufacturing sector, financial performance is still on a downward trend. In 2017, Eveready East Africa undertook portfolio restructuring through sale of assets worth 452 million and used the proceeds to settle debts and ensure continuity of operations. In financial period 2018/2019, the firm adopted 100% retention rate but still recorded a 24% decline in revenues and recorded losses amounting to Ksh.303 million [2]. Mumias Sugar Company recorded losses amounting to over 6 Billion in 2017 and Sh. 4.8 Billion in 2016. It was eventually placed under receivership in 2019 following continued losses despite efforts of restructuring. East African Breweries registered a 39% profit decline in 2020 from Kshs. 11.5 Billion to Kshs. 7 Billion. BOC Kenya recorded a declined profit of Sh. 14,574,000 in 2020 from Ksh. 19 million in 2019. Unga Group Ltd recorded 88% profit decline from Ksh. 544,814,000 in 2019 to Ksh. 66,161,000 in 2020 [8]. Researches done have majorly been on corporate restructuring. Studies on financial restructuring majored on SACCOs and commercial banks in Kenya and with those on manufacturing firms only done globally and not locally. Most studies have ignored the issue of dividend policy restructuring in relation to financial performance. Other studies have found mixed results on the

influence of components of financial restructuring on financial performance with some getting positive and some negative relationship raising the question of what should be the ideal relationship should be. Based on the gaps, the study sought after evaluating the effect of portfolio restructuring on financial performance of listed manufacturing firms in Kenya.

## 1.2 Objective of the Study

The study's main aim was to examine the effect of portfolio restructuring on the financial performance of listed manufacturing firms in Kenya.

## 1.3 Research Hypothesis

Portfolio restructuring has no significant effect on the financial performance of listed manufacturing firms in Kenya

## II. LITERATURE REVIEW

### 2.1 Theoretical framework

The study was guided by Markowitz Modern portfolio theory.

#### 2.1.1 Markowitz Modern portfolio theory.

This theory was hypothesized by Markowitz (1952). It holds that investors will ensure to invest in portfolios that maximize returns and reduce portfolio risk. The main idea behind this theory is diversification, that is, by holding the portfolio of assets from different classes of risk to offset risk and thereby maximize returns rather than holding a portfolio of similar assets that are positively correlated. Diversification is about assets that are not perfectly positively correlated either by investing in assets in different industries or varying levels of risk. The portfolio frontier in modern portfolio theory refers to a portfolio combination that increases the expected return for a specific amount of risk [7].

Modern portfolio theory was of relevance to portfolio restructuring in manufacturing firms since the firms had diversified in different brands; for instance, EABL has a range of alcoholic and non-alcoholic drinks, Flame tree group deals in a range of beauty products and plastic products, Kenya Orchards sells fruit, vegetable bottled and canned products. British American Tobacco sells five different cigarette brands and tobacco. Mumias sugar company's portfolio included sugar manufacture, electricity provision, ethanol, and distilled water manufacturing. The theory was insightful as the firms should consider restructuring their portfolios by adopting a portfolio mix that generates high returns. Thus, similar assets that have a positive correlation should be shunned to maximize returns and divest from product lines that do not generate adequate returns.

### 2.2 Empirical Review

Kahuko (2018) researched on the effect of corporate restructuring on financial performance of listed commercial and service firms in Kenya with one of the study components being portfolio restructuring. The study adopted descriptive research design and a census study on the 10 commercial and service firms listed on the NSE. Secondary data was collected from 2011 to 2017. Data was analyzed using panel regression analysis. The results of the study showed portfolio restructuring had a negative impact on financial performance.

Kanyagia (2020) studied corporate restructuring strategy on performance of insurance companies in Kenya: A case of Britam Holding Limited. Descriptive research design was used where all top and middle-level employees formed the target population as they were completely enumerated. Investment restructuring was one of the component of restructuring. Descriptive statistics, correlation and multiple regression was used in data analysis. The study revealed investment restructuring had a positive influence on performance.

Waithaka and Kimencu (2018) examined the influence of restructuring strategies on the performance of commercial banks in Kenya: A case of Kenya Commercial Bank. The study employed a descriptive research design. Out of a target population of 235 employees stratified random sampling technique was used in selecting 71 respondents. Primary data was collected using questionnaires then analyzed using descriptive and inferential statistics using multiple linear regression. The study findings indicated that portfolio restructuring had a positive and statistically significant relationship with the bank's performance.

Waweru (2019) studied the relationship between corporate restructuring and performance of the National Police Service in Kenya. A descriptive research design was adopted. The study used a target populace of 296 police officers from administration, finance, operation, and planning. Stratified sampling was used to generate a sample of 60 officers with primary data. The data were analyzed using multiple regression analysis and descriptive statistics generated. The research outcome was that portfolio restructuring positively affected the performance of the National Police Service.

Wekesa and Yabesh (2020) sought to determine the effect of portfolio restructuring on commercial banks' financial performance at the Nairobi Securities Exchange. The study used longitudinal research design and secondary data from 2014-2019 through a review of documents, annual reports, and published books of accounts. Census was conducted. Panel data was used from the target population of 11 commercial banks. Data was analyzed using descriptive statistics, Pearson's product-moment correlation, and regression analysis. Findings indicated a positive but insignificant effect of portfolio restructuring on financial performance.

## III. RESEARCH METHODOLOGY

Longitudinal research design was adopted for the study The design was best suited as the study variables targeted at assessing the effect of portfolio restructuring on financial performance using repeated observations of listed Kenyan manufacturing companies without manipulation of the variables over a period of ten years, that is, 2012-2021. The study population composed of all the eight listed manufacturing firms in Kenya since whereby a census study was carried out.

**3.1 Data Collection, Analysis and Presentation**

Data collection sheet was used in collecting secondary data from audited financial statements. Information about short-term liabilities, equity, turnover, current assets, fixed assets, total dividends, net profit and long-term liabilities was extracted from financial statements between financial years 2012 to 2021 and debt-equity ratio, change in fixed assets to total assets ratio, dividend payout ratio and ROE generated.

Descriptive statistics consisted of mean, standard deviation, minimum value and maximum values. Inferential statistics comprised of Pearson’s product moment correlational analysis and Hausman test for fixed and random effects in determining the association amid portfolio restructuring and financial performance. Diagnostic tests were conducted to ensure that the variables conformed to the assumptions of linear regression.

The panel regression model was formulated as follows: -

$$Y_{it} = \alpha + \beta_1 PR_{it} + \epsilon_{it} \dots \dots \dots (1)$$

Where;

Y financial performance

$\alpha$  is the intercept that measures financial performance in the absence of portfolio restructuring

$\beta_1$  Regression coefficient of portfolio restructuring

PR Portfolio restructuring

$\epsilon$  error term

i is the eight listed manufacturing firms

t period (2012-2021)

**IV. RESULTS AND FINDINGS**

This section presents discussion of findings of descriptive and inferential analysis as well as diagnostic tests conducted on the data.

**4.1 Descriptive Statistics Results**

**Table 1: Descriptive Statistics**

Variable	Obs	Mean	Standard Deviation	Min	Max
Portfolio Restructuring	80	0.2844491	0.142413	0.0147724	0.6149825
Financial Performance	80	0.483148	0.2235959	-0.2176538	0.9519872

This variable was calculated as a ratio of change in fixed assets to total assets. A mean of 0.2844491 was recorded indicating that averagely the manufacturing firms increased their fixed assets base by 28.44%. Manufacturing firms will accrue the benefit of increased output since the fixed assets acquired will be less prone to breakdown as they will use updated technology which will in turn increase cash flows since more turnover will be generated. The manufacturing firms depicted a wide variation since a standard deviation of 0.142413 was recorded which was lower in comparison to the mean. This ascertained that the data lacked outliers.

Moreover, some manufacturing firms invested heavily in fixed assets shown by the maximum value of 0.6149 indicating that they acquired about 61% fixed assets. These firms are likely to have liquidity problems since fixed assets require huge initial capital outlay which may not be recouped in the short term by the firms thus compromising financial performance. Nonetheless, some manufacturing firms invested minimally on fixed assets shown by the minimum value of 0.0147724 indicating that portfolio restructuring only accounted for about 1%. These manufacturing firms are therefore likely to thrive well as minimal finances are tied up in fixed assets which can therefore be invested in other profitable ventures which may generate greater returns in the short term.

**4.2 Diagnostic Tests**

The following diagnostics were conducted to establish appropriateness of using regression model.

**4.2.1 Normality test**

Normality test is a test conducted to ascertain whether data obtained for a particular study is from a population that is normally distributed. Normality was tested using Shapiro Wilk test.

**Table 2: Shapiro Wilk Test of Normality**

Variable	Observations	W	V	Z	Prob>z
Portfolio restructuring	80	0.97251	1.887	1.391	0.08208
ROE	80	0.98194	1.240	0.471	0.31893

Results on Table 2 show that portfolio restructuring had a p-value of 0.08208. Financial performance had a p value of 0.31893 indicating that both variables were normally distributed. At 5% percent significance level, both the predicted and predictor variables were significant as they had a probability value of larger than 0.05, W values inclined towards 1 and Z values were less than 1.96. Hence, the study failed to reject the null hypothesis that the variables were normally distributed.

#### 4.2.2 Test for Heteroscedasticity

Heteroscedasticity arises where the variance of the residuals is uneven all the way through an array of measured values. Heteroscedasticity was tested using Breusch-Pagan test.

**Table 3: Breusch-Pagan test for heteroskedasticity**

Chi <sup>2</sup> (1) =1.77
Prob> Chi <sup>2</sup> =0.1840

As shown in Table 3, Tested at 5% significance level, the derived value of probability of the Chi square was established to be 0.1840 which is greater than 0.05. The study therefore failed to reject the null hypothesis that the residuals were homoscedastic.

#### 4.2.3 Test for Multicollinearity

Multicollinearity is said to exist an independent variable is highly correlated with one or more independent variables thereby making some of the variables to be statistically insignificant. It was tested using Variance Inflation Factor (VIF).

**Table 4: Variance Inflation Factor**

Variable	VIF	1/VIF
Change in FA to TA Ratio	1.08	0.925091

Table 4 indicated VIF value of 1.08, which is within the acceptable range of 1-10. The study therefore failed to reject the null hypothesis that there is no multicollinearity in the variables.

#### 4.2.4 Unit Root Test

Panel data is said to have stationarity where change in time fails to cause change in the distribution's shape usually caused by unit roots. The Levin- Lin-Chu test was conducted to determine if the variables were stationary.

**Table 5: Levin-Lin-Chu Stationarity Test**

Variable	T-statistic	P-value
Portfolio Restructuring	-5.4504	0.0000
Financial Performance	-4.4531	0.0000

Table 5 indicates that the probability value for portfolio restructuring and financial performance are less than 0.05. The t critical was -1.990 whereas the t-statistic of all the variables was less than t critical. Therefore, the study rejected the null hypothesis and adopts the alternative hypothesis that the panels are stationary in nature

#### 4.2.5 Test for Autocorrelation

Autocorrelation is an indicator of correlation amongst variables over a successive time period. It occurs where the error term of one study period correlates with of consequent years. The study used Breusch Godfrey LM test to test for autocorrelation.

**Table 6: Breusch-Godfrey LM Test for Autocorrelation**

Lags (p)	Chi <sup>2</sup>	Df	Prob > Chi <sup>2</sup>
1	2.986	1	0.0840

As illustrated in Table 6, a p value of 0.0840 was obtained, and being greater than .05, tested at 5% SL, the study failed to reject the null hypothesis as the residuals did not have serial correlation.

### 4.3 Inferential Statistics

#### 4.3.1 Correlation Analysis Results

**Table 7: Pearson's Product Moment Correlation**

	ROE	PR
ROE	1.0000	
PR	0.3297* (0.0028)	1.0000

Based on results in Table 7, a significant positive association exist between portfolio restructuring and financial performance as measured using ROE with coefficient of 0.3297 and p value of 0.0028. this indicates that increase acquisition of fixed assets varies financial performance positively. The p-value indicates that the relationship is significant.

### 4.3.2 Fixed Effect Model

**Table 8: Fixed Effect results**

Fixed-effects (within) regression	Number of Obs =80			
Group variable: ID	Number of Groups =8			
R-sq: Within=0.2296	Between=0.0625	Overall=0.2122	F(3,69) = 6.85	
Corr (u <sub>i</sub> , X <sub>b</sub> ) = -0.0603	Prob>F =0.0004			
<b>ROE</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>T</b>	<b>p&gt; t </b>
<b>Portfolio restructuring</b>	0.4104555	.1668635	2.46	0.016
<b>_Cons</b>	0.3770022	.0846091	4.46	0.000

### 4.3.3 Random Effect Model

**Table 9: Random Effect results**

<b>ROE</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>T</b>	<b>p&gt; t </b>
Portfolio restructuring	0.4311353	0.1650034	2.61	.009
<b>_Cons</b>	0.3740434	.0803953	4.65	.000

### 4.3.4 Hausman Test

**Table 10: Hausman test Results**

	<b>Coefficients</b>			
	Fixed	Random	Difference	Standard Error
Portfolio restructuring	0.4104555	0.4311353	-0.0206798	0.0248453
	chi2(3) = 27.14	Prob>chi2 =	0.0000	

A chi-square value of 27.14 was obtained based on the values in Table 10. The derived value of probability of the Chi square obtained was 0.0000 which is smaller than 0.05. The null hypothesis was thereby rejected that random effect model was appropriate was rejected and the following equation derived.

$$ROE_{it} = 0.377 + 0.41PR_{it}$$

### 4.3.5 Discussion of Findings

Portfolio restructuring had regression coefficient of 0.410 indicating that a unit increase of acquisition of fixed assets caused a consequent increase in financial performance of 0.410 units. Acquisition of additional fixed assets means that the manufacturing firms are increasing their investments by weighing the risk and returns of portfolios and thereby investing in portfolios that minimize risk but maximize returns and especially assets class which are negatively correlated and therefore contributing to increased financial performance of the firms. Investments being a fixed asset explains why improved portfolio restructuring improves financial performance. The portfolio restructuring was significant statistically since the p-value obtained was 0.016, which is smaller compared to 0.05. The study thereby rejected the null hypothesis, according to which portfolio reorganization had no discernible effect on financial performance.

These findings are in line with Waithaka and Kimencu (2018), Kanyagia (2020) and Waweru (2019) who found a positive and significant relationship between portfolio restructuring and performance of commercial banks, insurance companies and National Police Service respectively. The findings conform to correlation results which established a positive significant association between portfolio restructuring and financial performance with p value of 0.0028 and coefficient of 0.3297. The regression results that a positive and significant relationship exists between portfolio restructuring and financial performance are in line with Markowitz modern portfolio theory.

The theory opines that firms should diversify their asset portfolio mix by holding different risk class assets to counterbalance risk and maximize returns by incorporating assets that are negatively correlated into the portfolio. This means that the better the portfolio mix incorporated the higher the financial performance and thus an increase in fixed assets improves financial performance. This suggests that manufacturing firms should restructure their portfolios by investing into portfolios that maximize returns at the lowest risk level by considering assets that have negative correlation so that returns and risk do not move in the same direction.

## V. CONCLUSION

Correlation coefficient of 0.3297 and p-value of 0.0028 were obtained, indicating that the variable significantly affected financial performance. Based on the regression analysis ran, coefficient value of 0.410 and a p-value of 0.016 was obtained. This means that an increase in purchased fixed assets increases financial performance by .410 units. The p-value obtained was less than 0.05 showing that the variable was significant. The study therefore concluded that a significant relationship existed between portfolio restructuring and financial performance of listed manufacturing firms in Kenya.

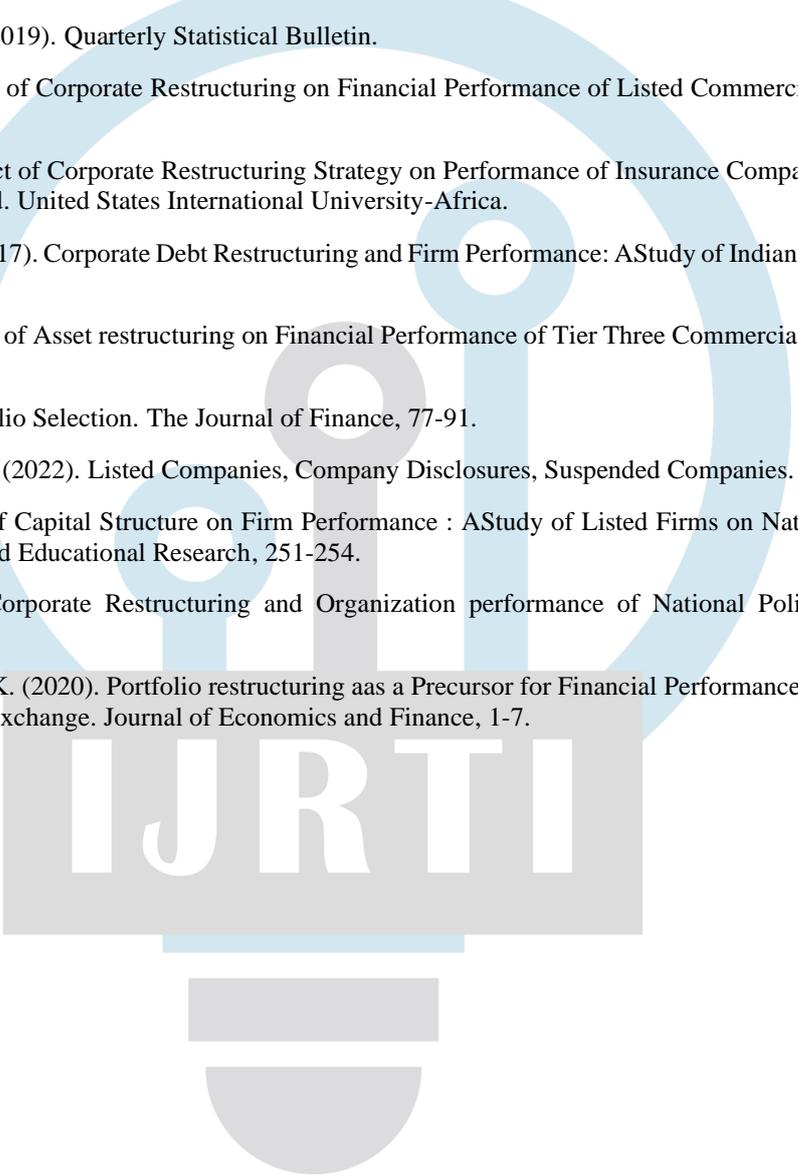
## VI. RECOMMENDATIONS

Descriptive statistics showed that some firms had invested minimally on fixed assets (minimum value = 0.0147). It was therefore recommended that such firms should increase their fixed assets base but ensure to consider risk return of the portfolios they wish to hold to maximize on the returns. The study recommended that manufacturing firms should often evaluate their portfolios to assure that only investments that derive maximum returns are retained in the firm.

The study also recommended that manufacturing firms make an effort to maintain an asset portfolio mix that are negatively correlated to ensure that all assets do not move in the same bearing. This would guarantee that if one investment moves in an undesirable direction, all the other investments do not follow suit, as this would be risky for the manufacturing enterprises' going concern.

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