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DIVIDEND MANAGEMENT AND THE PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

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Abstract:
Over the last two and a half decades, the overall trend in the Kenyan manufacturing sector has been a decline in sales, revenues, and margins. However, the issue arising here is that there is no clarification on the effective dividend management strategy that should be applied in the manufacturing sector, which is what the current study seeks to address. Return on Equity (ROE) in the manufacturing sector in Kenya has been variable, ranging in various studies, yet overall, the trend, from 2017-2021, suggests a decline in the overall ROE for the Kenyan listed firms, peaking at an ROE of 13.6 percent in 2018, followed by an abrupt decline to an ROE of 2 percent in 2021. Obviously, the findings from this present study will contribute to the existing literature in the field, as the study is guided by the Bird-in-Hand Theory. Being an applied scientific discipline, the population targeted for this particular study were the nine manufacturing firms that are presently listed on the Nairobi Stock Exchange. Being an empirical study, the present study utilized the correlational study design. For the purposes of the present study, the researcher conducted a census to examine the performance of the nine manufacturing firms. Data analysis techniques used STATA. For hypothesis testing, the independent variable is related to the dependent variable, viz., performance. For the purposes of hypothesis description, the researcher has utilized the means, standard deviations, and standard errors. For the purposes of hypothesis interpretation, the researcher has worked within the realm of inferential statistics. For the purposes of the current hypothesis, the results are displayed in tables, charts, and graphs. It is evident from the results that the overall R-squared value in the relationship between dividend management, both in ROE and EPS, is 0.4817, significant overall at the level of $p = 0.000$, while the overall R-squared in the relationship between the independent and dependent variable, in the form of dividend management, is in the range of 0.4574. Overall, from the policy standpoint, the researcher suggests that the focus should be on the significance of the interest coverage ratio calculation. Overall, the researcher suggests that the overall importance should be on the calculation of the overall interest coverage ratio, in order for the financial risk to

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be reduced. Overall, the current hypothesis suggests that the calculation of the overall interest coverage ratio is affirmative. Overall, the researcher suggests that the overall importance should be on the calculation of the overall interest coverage ratio. Overall, the results from the present hypothesis will be useful to the government, policymakers, and the management hierarchy of the manufacturing firms. Overall, from the results, the researcher concludes that the overall hypothesis has operational validity, in that the results from the hypothesis suggest that the overall dividend management variable has an overall significant relationship, in the form of influence, on the overall performance variable of manufacturing firms. The main recommendation is that in order to increase performance, managers should implement the financial imperatives.

JEL: G30, M42, H83, D73

Keywords: dividend management, performance, manufacturing sector, bird in hand theory, return on equity, deindustrialization

1. Introduction

Industry is a key sector in the economic growth and development of any economy. It is the backbone of socioeconomic change as it provides chemicals, equipment, and machinery required in the mechanization of agriculture, as well as the equipment needed in agro-processing for the value addition of crops. It also supports the housing sector through the provision of construction materials, promotes innovations in architectural works of construction, as well as improves the use of local materials in construction. It also supports the health sector through the provision of pharmaceuticals, health products, and health equipment, among other areas. It also creates employment opportunities, including in the services (Hezekiah, 2022).

The manufacturing sector has traditionally represented a catalyst within the economic development of developing countries. There is a perception developing in recent times of a possible lessening of the importance of the manufacturing sector during the past two to two and a half decades, leading to the appearance of "*early deindustrialization or a lack of industrialization in developing economies*." The phenomenon of "*premature deindustrialization or the lack of major industrial development" is being observed to gain increasing importance in developing countries; the percentage of the GDP constituted by the manufacturing sector reached a lower level of income than was seen in "early industrialized economies*" (Amirapu and Subramanian, 2015).

During the initial two decades after Kenya's independence, the manufacturing sector grew very fast, averaging 9-10 percent per year, with a significant adjustment realized within the food, beverage, and textile industries. However, the sector eventually slowed down and currently accounts for approximately 10 percent of the GDP. The slow growth over the years represents the pre-independence obstacles, the underperformance of the 1980s, and the significant influences of liberalization policies conducted in the later years. Modern plans, such as the Big 4 Agenda, have the intention of increasing the

contribution of the manufacturing sector towards the GDP, addressing issues involving labor productivity, the costs of energy, and logistics. Prerequisites required for sustained growth within the manufacturing sector include a competitive market, low costs of energy, prompt payment, productive employees, and favourable logistics. The ever-advancing globalization, elimination of trade barriers, and the development of a well-interconnected regional economy influence the manufacturing sector.

The European governments have supported the growth of the manufacturing sector by putting into action a number of initiatives intended to improve the financial performance of firms while at the same time ensuring their safety and soundness. A number of changes in the financial sector have been introduced, including those in the capital structure. Such changes in the financial sector are expected to increase efficiency and effectiveness (Mertens & Thiemann, 2018).

In Sri Lanka, improvements in financial performance are linked with the process of implementing dividend policy. Dividend policy is one of the four main finance decisions, focusing on the distribution of dividends or earnings. It is an area of paramount significance, since it defines the amount of earnings distributed to the stockholders and retained in the company for investments. The activities of businesses in making investments affect their earnings, dividends, as well as the costs of capital (Ajanthan, 2019).

The manufacturing industry has a regional impact on the economies of many countries. In the case of Nigeria, the manufacturing industry accounted for 8.59% GDP in the third quarter of 2022. The government's policies for improved global competitiveness in the manufacturing of products were given priority. In 2021, the president of the African Development Bank noted the fact that:

> *"Africa is endowed with a vast number of natural resources, riches oil, gas, minerals, metals, agricultural produce, forestry products, and the Blue Economy, and the potential is substantial to develop the manufacturing sector in the region. The continent needs the formulation and implementation of policies focused on the manufacturing sector and the further development and upgrade of the region's infrastructure. Achieving the substantial potential in a liberalized trading environment and the growth and development of the regional manufacturing sector and the development of the industrial sector based on the drive for exports are critical, but the fact is that many African countries do not have the capital needed to develop the resource base and maximize profits."* (Ogunmakin, Adebayo & Olaniyan, 2022).

On the Nairobi Stock Exchange, a greater number of manufacturing companies has experienced a reduction in their net profits. For example, BOC Kenya PLC reduced its profits by 49% from KES 1,010 million in 2016 to KES 872 million in 2017, British American Tobacco Kenya PLC reduced its profits by 21% from KES 36 million in 2016 to KES 34 million in 2017, whereas Carbacid Investment PLC reduced its profits by 18.7% from KES 826 million in 2014 to KES 809 million in 2015, followed by another reduction of 6.19% from KES 831 million in 2016 to KES 589 million in 2017. However, the company

put out a profit warning regarding 2019 results. For the past ten years, Mumias Sugar has been recording losses (Museleku, 2022).

Vision 2030 in Kenya lists industrialization as a key priority, the achievement of which is dependent on the success of the industrialization sector. Although the need to develop this sector is well recognized, there are a number of factors that tend to prevent its development. The key among these is the lack of suitable resources. The optimal performance of businesses largely depends on the financial management's ability to manage their payables, as well as their assets and receivables (Ochieng, Jagongo & Ndede, 2020).

The local manufacturing sector in Kenya is critical to the overall economic development in the country. Evidence shows that the sector increases job opportunities, ensures the inflow of foreign exchange, and also significantly contributes to the GDP of the country. Therefore, the government has initiated various policies to develop the sector (Amburuka, 2019).

An intact domestic manufacturing sector is necessary for successful economic development, allowing it to establish positive inter-industry relations, fostering the industrial revolution/technological progress, and providing the greatest potential increase in productivity (Atrill, 2016).

2. Statement of the Problem

A nation's economy and growth are greatly impacted by the manufacturing sector. Implementation of dividend management will improve the business outlook. Dividend management is a fundamental concept within a firm, and it is very important since it affects overall stability. The sector's performance showed a downward trend. The survey conducted by the Kenya National Bureau of Statistics, KNBS, on the growth of the 2023 Economic Survey, issued on May 3, 2023, showed the rate of growth of the manufacturing sector declined to 2.7 percent in 2022 from 7.3 percent in the previous year. The majority of the manufacturing companies registered negative working capital, unpaid accounts payable, and a high debt/equity ratio (Prempeh *et al.*, 2016). The KNBS also reported the amount of taxation the government would not get over the last five years because of the contingencies, estimated about $67 million, while the Kenyan companies have registered stagnation and reduced profitability of nearly $330 million yearly. The application of dividend management will improve the future of a firm. An organization's weakness within the firm's finance will be reduced using a combination of dividend management. The major manufacturing companies' growth was impacted negatively because of the implementation of the turnaround approach. The leverage within the manufacturing companies influences the organization's growth positively. The outlook among the manufacturing companies within the NSE Kenya was impacted negatively because of the use of leverage. The four studies mentioned have shown the use of a range of different approaches. Despite the variations among the four studies' applications, there have been minimal efforts linking the mentioned approaches with the organizational growth.

Therefore, this specific study proposes the influence of dividend management within the growth of the Kenyan manufacturing companies.

2.1 Objectives of the Study

To determine the impact of dividend management on the performance of manufacturing firms in Kenya.

2.2 Hypothesis of the Study

H_{01}: There is no significant effect of dividend management on the performance of manufacturing firms.

2.3 Scope of the Study

This research focuses on dividend management and the performance of manufacturing companies listed on the stock market in Kenya. The research used secondary data collected from the audited financial reports of manufacturing companies in Kenya over a ten-year period from 2013 to 2022, during which time devolution and the Big Four program were implemented in Kenya. Data was collected from nine manufacturing companies that are listed on the stock market in Nairobi, Kenya.

3. Literature Review

3.1 Theoretical Literature Review

3.1.1 Bird in Hand Theory

Based on Linter's view (1956), dividends are considered better than capital gains since dividend payments can reduce investment risk. The Bird-in-Hand Theory argues that investors' risk is created through the reinvestment of profits, and thus, dividends' payment will result in investors earning higher returns and, therefore, the higher cost of capital.

According to Bhattacharya (1979), dividends are preferable because they can ease information asymmetry; a company that declares dividends informs the market that the company is doing quite well. The company's risk depends on its investment, but not on the source of funds used for the investment. Investors can improve their position by re-investing their profits in the same or better companies in an effort to reduce their level of risk.

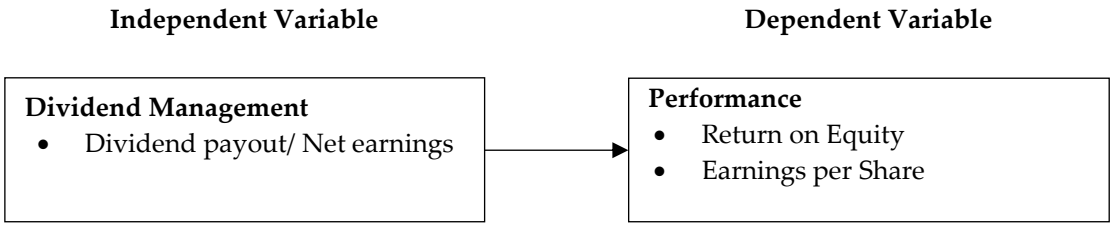
In the capital gains area, investors face high risks and uncertainties, and any statistic is incapable of predicting the extent of capital gains that a given stock would realize. Various factors determine the eventual outcomes of the capital gains that a given stock would realize, and some of these factors are outside the control of a given firm and even unforeseen. For instance, even when investors face high risks and realize high gains, they could also realize minimal gains and even zero gains. The risks that investors face might be considered inadequate considering the benefits that they stand to gain (Easterbrook, 1984).

From the world experience, the relevance of dividend policy as an influence on firm performance is brought out. Companies make up the pillar of the economy with many employees and as key contributors through taxes. Recently, there has been an observed prevalence of paying cash dividends by companies across the world (Livoreka *et al.*, 2014).

The gist of this theory is that managers are supposed to give investors everything they ask for when the time comes. In addition, the issue of whether to pay dividends versus how much to pay dividends is considered by the same approach. The results of these theories mean that the initiators of dividends are often the insiders when investors are demanding increased prices of the same stocks, but the same insiders abstain from paying dividends if investors prefer an increase in the price of stocks of others (or non-dividend-paying firms). The results mean that dividends are important to stock value but in different ways at varying times (Fareiny *et al.*, 2019). The current research utilizes the above theory to test whether the payment of dividends to the shareholders of publicly listed manufacturing companies affects their financial performance. As such, an appreciation of the Bird-in-Hand Theory will aid in analyzing the influence of dividend management on the financial performance of listed manufacturing firms in Kenya.

3.1.2 Conceptual Framework

Figure 2.1: Conceptual Framework



Source: Researcher's Conceptualization (2023).

3.1.3 Dividend Management

The dividend forms the basis of the distribution of earnings to shareholders. From both organizational and shareholders' points of view, as well as from the buyers' or representatives' points of view, to name a few, dividend policy stands as the most important budgeting tool. Dividend policy, as well as other financial policies, is central to a corporation. Dividends form the basis of the distribution of a firm's value to shareholders. Use of profits as opposed to the capital of an enterprise to pay dividends is essential under Kenyan law (Bossman *et al.*, 2022).

In the study, the dividend management is measured through the dividend payout ratio. As Bossman *et al.* (2022) state, the dividend payout ratio is the measure of the dividends paid in relation to the earnings and stock market value of the firm. These are pieces of information that convey the dividend policy of the firm. More mature firms pay out more dividends to their shareholders, considering that the firms are able to do so,

whereas firms seeking more growth pay out less dividends or no dividends at all to fund their growth.

The main purpose of the investor's involvement in the company is to gain a return. The investor can forecast a return in terms of dividend income or capital gain. The dividend payout ratio can also be affected by the company's performance, and this contributes to the company's value as a result of the dividend policy (Salim & Aulia, 2021).

3.1.4 Financial Performance

It refers to the measure that determines the effectiveness of the ability of a given firm to employ its main line of business in deriving benefits or profits. It involves the assessment and judgment of the financial results that stem from the activities and undertakings carried out by the firm. Upon examination and comprehension of the linkage that exists within the financial statement and the components, it is possible to determine the strengths and weaknesses within a firm's financials. It was determined by return on equity (ROE), earnings per share (Mwangi, 2016).

Performance can be defined as the disparity that hampers a firm's actual performance and its operating cost of capital. The financial performance goal is based on examining a firm's financial dimension in relation to growth. Financial performance is focused on aspects that have financial value; hence, financial ratios make a practical tool for benchmarking, examining a company's performance, as well as a firm's comparison based on an industry average standard (Xhavit, 2022).

ROE is according to Huang (2014), is the most used measure of performance, especially owing to its application in stock option programs, in which 84% of the firms used ROE. There are no other measures of performance, such as net income and sales revenues, that are in line with ROE. Its structure has the effect of preventing ROE from being reduced through the issuance of more common stock, ROE dilution (Huang *et al.*, 2014).

The financial efficiency of firms acts as a measure of current and potential growth within organizations. In an empirical study, two common measures of financial efficiency used in research to determine financial performance at organizations involve ROE and ROA. ROA measures efficiency in handling organizational costs. On the other hand, ROE measures the efficiency of organizations to fund equity (Nhung, Daphne, & Huyen, 2020). As stated by Bhayani & Ajmera (2019), earnings per share (EPS) connects the number of outstanding shares with the earnings potential of the company. The metric makes way for a swift analysis of the ability of the management to create revenue streams for the company over time. Even though the metric does not put the earnings of the company into perspective at first glance, it gives investors an idea of the company's performance.

3.2 Empirical Literature Review

Murage and Emba (Murage & Emba, 2019) carried out a study to determine the significance of dividend management and the relationship that it portrays regarding the financial performance of the manufacturing companies listed on the NSE. The secondary

data was sought solely from the nine manufacturing companies listed on the NSE. Rates of interest of the manufacturing companies' data were acquired via the financial statement approach. Descriptive and inferential statistics analysis was applied and evaluated the acquired information. The findings of the essay highlight a positive and statistically significant relationship was established between dividend management and the financial performance of the manufacturing companies depicted on the NSE. The period covered in the essay was for a period of five years, which might not be ideal for arriving at the correct findings, and the approach of the essays differed.

Bossman *et al.* (2022) investigated the impact of dividend policy on the financial performance of companies quoted on the Ghana Stock Exchange. The study was based on a dynamic research methodology. The target population was 29 companies quoted on the stock exchange. A census sampling method was employed, where all 29 companies were sampled. Data was derived from the audited accounts of the target population. The data was analyzed using descriptive and inferential statistics, which were assisted by Stata software. The results showed that dividend policy positively influenced the financial performance of companies in Ghana.

Also, Udoka, John, and Orok (2022) researched to evaluate the significance of dividend policy and provide recommendations on ways to improve it in order to affect Nigerian firms' performance. The study was carried out using an ex-post facto research design, with most of its information coming from secondary sources. The statistics were obtained from the yearly performance records of the firms targeted by the study. The results indicated a positive relationship between dividend policy and the financial performance of enterprises in Nigeria. The research was carried out in Nigeria, using an ex-post facto design, and it indicates that there is a need to carry out similar research in Kenya using other research designs, including correlation designs.

Abubakar *et al.* (2022) examined the effect on the financial performance of selected quoted companies in Nigeria as regards dividend policy. The population was made up of ten companies listed on the Nigerian Stock Exchange as at 31st December 2020, and all ten companies were selected as variables for the ten-year period (2011-2020) using purposive sampling. Multiple regression analysis was used as the instrument for analysis. It was concluded that there is a positive and significant effect on the financial performance as regards the selected companies listed in Nigeria.

Komolng'ole & Mwenda (2023) investigated the impact of dividend policies on the financial performance of private manufacturing companies in Nairobi City County. The research was anchored on the Dividend Irrelevance Theory and utilized a descriptive research methodology. The research population was set at 455 private assembly firms, with a five-year horizon from 2016 to 2021 and a sample size of 208. The data was collected from the website of the Kenya Association of Manufacturers and the finance offices in the institutions. The software used to code the data was STATA software.

Yegon *et al.* (2014) analyzed the impact of a firm's dividend policy on profitability, investment, and earnings per share. The study collected data from the accounts of nine Kenyan manufacturing firms listed on the stock exchange. The authors utilized EViews regression to establish a positive correlation between dividend policies and profitability,

as well as between dividend policies and investment and earnings per share. The study hypothesized that a firm should declare dividends after setting aside some proceeds for investment.

Okechukwu and Younghwan (2024) analyzed the correlation between value, corporate performance, and dividend policy in the context of the Korean market while incorporating the unique aspects of ownership structure. The study utilized sophisticated regression techniques with a comprehensive dataset of 5,478 observations from the Korea Composite Stock Price Index. The finding showed domain-specific impacts attributed to unique measures of dividend policy when tested through managerial entrenchment and alignment-of-interest theories. In particular, the cash payment component of dividend distribution demonstrated a profound positive impact on both Tobin's Q ratio and market-to-book ratio, implying a generally positive correlation with market value. The alignment-of-interest theory was verified as the outcome of the study showed positive impacts of various measures of dividend policy on firm performance.

Adeiza, Sabo, and Abiola (2020) sought to assess the influence of the dividend payout ratio on the net profit margin of listed oil and gas firms and its moderating influence on return on equity (ROE) and return on assets (ROA). The study showed that the Dividend Payout Ratio had a negative and insignificant influence on Mobil Plc and Total Plc performance in 2017 and 2018, whereas Total Plc was significantly influenced in 2015 and 2016, and Mobil Plc was significantly influenced in 2015 but not in 2016.

4. Research Methodology

4.1 Research Philosophy

This study was carried out using a positivist paradigm, where observable events are used to develop trustworthy data. Quantitative methodologists who rely on procedures like counting and measurement are viewed as advocates of positivism. Positivism allows the use of statistics to test a hypothesis and assess data obtained from quantitative methodological approaches (Creswell, 2013).

In this particular study, the use of the positivism approach was pertinent since it was required to determine the current reality surrounding the performance of the manufacturing companies and the possible way Dividend management could contribute towards enhancing the same. In this regard, quantitative information is needed in the quest to determine the connection existing between Dividend management and performance.

4.2 Research Design

This study uses a correlational research design and a regression model that involves multiple panels. The use of correlational research helps to outline in quantitative terms the extent to which a relationship exists between variables. This type involves data collection to establish whether and to what extent a relationship exists between two or more quantitative variables. These kinds of studies are used to investigate relationships between two or more variables (Mugenda & Mugenda, 2003).

4.3 Target Population

The population of study was nine manufacturing companies listed on the Nairobi Stock Exchange as of December 31, 2022, in the manufacturing sector (Nyaga, 2022). The reason the population was chosen was the fact that it changes daily after market closure, offering the ability to dissect the components of dividend management via stock analysis.

4.4 Data Collection Instruments

The researcher collected the secondary data from the target manufacturing firms utilizing the secondary sources, mainly the financial statements that were issued over the span of time from 2013 to 2022. Using the financial statements, the researcher calculated the ratios that are related to the variables in the study. Financial statements used in the study were derived from the websites of the listed manufacturing firms together with the capital market authority. Data collection form was utilized in the study.

4.5 Data Collection Procedure

The secondary data was obtained from the Nairobi Securities Exchange website in the form of the audited annual financial statements published. The researcher used panel data, which involves a combination of both cross-sectional and time series data. Data was collected over a period of ten years from 2013 to 2022, with the cross-sectional data involving nine manufacturing companies quoted on the NSE.

4.6 Measurement of Variables

Table 3.1: Measurement of Variables

Variable	Formula	Researcher
Dividend management	Dividend payout/ Net earnings	Murage and Emba, 2019 Umaru, Abubakar & Olumuyiwa, 2022
Performance	Net Income/ Shareholder's equity	Huang, 2014 Ryan, 2022
	Net profit after tax/ Number of shares outstanding	Gita, Ery and Pandu, 2021

Source: Study data, 2024.

4.7 Data Analysis and Presentation

Data was extracted from an Excel document to the STATA software for evaluation. The results for both descriptive and inferential statistics were explored. The descriptive statistics can be evaluated using mean, standard deviation, minimum, and maximum to establish the variables under investigation over a period of ten years from 2013 to 2022. The descriptive statistics offer a description or summarization of the dataset, showing a general description or overall presentation of the measures of central tendency, variability, and the overall value ranges for the variables under investigation. The mean gives an indication of the average value, showing how performances are typical. The standard deviation shows the variation or dispersal in the values, showing how stable or unstable the financial variables are in value. The minimum and maximum show the

overall value ranges for the dataset variables, showing how high or low performance measures can go. The inferential statistics include correlations, diagnostics, and tests for Hausman, fixed, or random effects. The study will use the following regressions models;

$$ROE_{it} = \beta_0 + \beta_1 DM_{it} + \varepsilon 1_{it} \quad (1)$$

Where;
ROE – Return on Equity = Net Income / Shareholders Equity,
$\beta 0$ – Constant in the model without firm size,
β_1 – Regression coefficient,
DM – Dividend management,
i – The manufacturing firms,
t – The time dimensions from 2013 to 2022,
ε_{it} – The error term.

5. Data Presentation, Analysis and Discussion

5.1 Descriptive Statistics

Descriptive statistics was done with the help of mean, standard deviation, minimum, and maximum statistics to analyze the study variables over a ten-year period from 2013 to 2022. Table 4.2 showed the results of descriptive statistics.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DM	90	0.4770	0.2296	-0.2176	0.9519
ROE	90	0.4219	0.2653	-0.5473	0.95198
EPS	90	5.1593	1.981	-4.43	28.92

Source: Study data, 2024.

The descriptive statistics on the financial performance measured by return on equity (ROE) have a mean value of 0.4219, a standard deviation of 0.2653, a minimum value of -0.5474, and a maximum value of 0.95198 for 90 data points. A mean ROE value of 42.19 percent indicates the average manufacturing company in the sample is making a considerable return on equity. However, a standard deviation of 26.53 percent indicates a large variation in financial performance among the firms. A minimum value for the return on equity at -54.74 percent indicates the firms making losses, partly because of inefficiencies in operations, excessive borrowing costs, and possible unfavorable markets. On the contrary, a maximum return on equity value of 95.198 percent indicates the firms making extraordinary profits, partly because of efficient management, competitive advantages, and favorable economic environments. The large variation in the return on equity values occurs and highlights the importance of studying the management of dividends with respect to their effects on the performance and strategies on how the firms can make extraordinary profits.

The descriptive statistics concerning the financial performance of the firms, measured by earnings per share (EPS), indicate a mean of 5.1593. This suggests that on average, the firms listed on the Nairobi Securities Exchange made an average of 5.16 shillings per share. The standard deviation of 1.981 suggests a moderate level of variability of the earnings per share among the firms. The minimum of -4.43 suggests negative earnings among the firms, while the maximum of 28.92 suggests high earnings per share among other firms.

The descriptive statistics for the data on dividend management, as reflected by the dividend payout ratio, are as follows: Mean = 0.4770, Standard Deviation = 0.2296, Minimum = -0.2176, and Maximum = 0.9519, with 90 observations. The mean value for the payout ratio of 0.4770 indicates that manufacturing firms, on average, distributed 47.7% of their earnings as dividends. The standard deviation measure of 0.2296 indicates that firms exhibit some variability in their dividend policies.

However, the lowest value of -0.2176 shows that some of these firms, including Flame Tree Group Holdings Ltd, practice a very conservative dividend payment approach by re-investing most of their earnings. Conversely, the highest value of 0.9519 indicates that some of these firms, including BAT in 2013, paid most of their earnings as dividends, an approach that may attract dividend-seeking investors but may not be appropriate for re-investing in business.

This broad variation in dividend payout ratios clearly brings out the variations in dividend management strategies among the manufacturing companies. Analysis of such variations is critical in gaining insight into the effects of diverse dividend management strategies on company operations. There could be optimal dividend strategies that, if identified, could help boost shareholder value and companies' sustainable financial performance. The relevance of dividends to companies, as described by "a bird in the hand," can be seen in the findings, where most investors value companies with easily distributable dividends.

The findings were consistent with Bossman *et al.* (2022), with variations mainly being due to research methodology differences and the country of data collection. The study uses data from manufacturers in Kenya, while Bossman *et al.* conducted the study from companies in Ghana and Nigeria. There can be significant differences in regulatory frameworks or company policies among such countries as opposed to those in Kenya.

5.2 Diagnostic Statistics

The diagnostic statistics comprise of correlation analysis, diagnostic tests, and the Hausman test for random effects.

5.3 Pearson Correlation Analysis

Pearson correlation analysis was used in the study to find the degree to which the relationship between dividend management and the performance of manufacturing firms actually exists. Pearson product-moment correlation coefficient was used to establish the correlation coefficient at a 95% confidence level. The results of the correlation coefficient are always between -1 and +1, whereby if the results are positively

correlated, it shows that efficient dividend management has led to an improvement in the performance of the firms. The results were shown in Table 4.2.

Table 4.2: Correlation Analysis

Variable	ROE	EPS	DIM
ROE	1.000	0.2721	
		0.001	
EPS		1.000	
DM	0.2354	0.2261	1.000
	0.0012	0.0004	

Source: Study data, 2024.

From the data, there is a positive relation between dividend management and financial performance with a value of 0.2354 and a p-value of 0.0012 ($p < 0.05$). Also, the relation between EPS and dividend management is shown to be positively correlated with a value of 0.2261 and a p-value of 0.0004.

5.4 Diagnostic Test Results

5.4.1 Normality Test

The normality test was conducted to determine whether the assumption that the residuals are normally distributed, as required by the linear regression model, held. The use of the Shapiro and Wilk test helped to determine whether the residuals for the panel regression maintained a normal distribution. The null hypothesis assumes that the residuals are normally distributed. The null hypothesis is not rejected if the p-values are higher than 0.05 and is rejected for values below 0.05. The results are presented in Table 4.3.

Table 4.2: Shapiro Wilk Test for Normality

Variable	Obs	W	V	Z	Prob>z
DM	90	0.9902	0.741	0.660	0.7454
ROE	90	0.9764	1.784	1.276	0.2276
EPS	90	0.9657	1.793	1.281	0.2167

Source: Study data, 2024.

From the Shapiro-Wilk test, the results showed that the value of the W-statistic for each study variable tended towards unity (Table 4.3). Furthermore, the Z-statistic was less than the critical value at 1.96, whereas the p-value exceeded the significance level at 0.05. This implied that the null hypothesis could not be rejected, and hence the data followed a normal distribution for each of the study variables.

5.4.2 Test of Normality of Residuals

The normality tests of the residuals are also important in verifying that the residuals are normally distributed, an assumption required for verifying the goodness of fit of the study results, as well as the stability of the study results. The Shapiro-Wilk test was used in the study. The null hypothesis for the test states that the residuals are normally

distributed. Departure from normality could present results that are unreliable and biased, hence the study results. The results of the Shapiro-Wilk tests are presented by a W of 1, the V and Z are below the Z-critical value of 1.96, and the p-values are all above 0.05. The results were presented in Table 4.5.

Table 4.3: Shapiro-Wilk test for Residuals

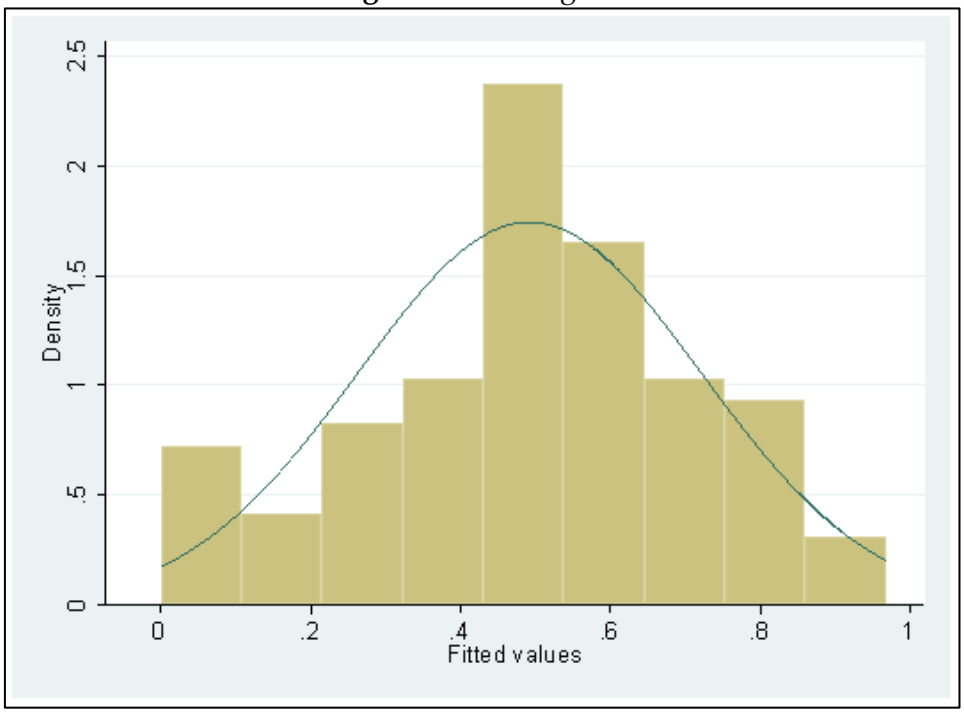
Variable	Obs	W	V	Z	P-value
Residuals	90	0.98611	0.891	0.217	0.31061

Source: Study data, 2024.

The Shapiro-Wilk test conducted on the residuals (as shown in Table 4.4) for normality gave a W-statistic of 0.98611, a V-statistic of 0.891, a Z-statistic of 0.217, and a p-value of 0.31061, for 90 observations. These statistics show that the residuals were normally distributed, since W is close to 1, the Z-statistic is well below 1.96, and the p-value is well above 0.05. The null hypothesis that states that the residuals were normally distributed was, therefore, accepted, meaning that normality requirements had been met, indicating that model fit, model stability, and model reliability were suitable for examining the effect of Dividend management on manufacturing companies' performance.

Besides using the Shapiro-Wilk test, the other test that was used to check the assumption of normality was examining the histogram of residuals. As stated earlier, a histogram of residuals should ideally form a bell-shaped distribution if the residuals were normally distributed. As seen in the experiment, a histogram should have symmetry in its distribution, which has its highest peak at the center with an even decline on both ends. A histogram with a bell-shaped distribution helps to confirm whether residuals have a normal distribution. The results were as shown in Figure 4.

Figure 4.1: Histogram



Source: Study data, 2024

Figure 4.1 above shows the normal distribution of the residuals, and this implies that the residuals are normally distributed. The graphical results, combined with the results obtained above from the Shapiro-Wilk test, provide a perfect validation of the model. The assumption used in the validity of the results on the effect of dividend management on the performance of the manufacturing firms is valid. The histogram provided above confirms the normal distribution, and this implies symmetry in the data around the mean and a decreasing frequency as the distance from the mean increases on both sides.

Collectively, the results from both Shapiro-Wilk tests and histograms indicate that residuals in this research are normally distributed, thus providing evidence that supports the validity of regression results. Even though other previous studies had ignored normality tests and argued that sample size had less effect when data are not normally distributed, in this research, statistical propriety has been followed to avoid any biases in inference, regardless of sample size. The research methodology applies both quantitative and qualitative approaches for enhanced validity in regression results, especially when considering the effect of dividend management on business performance.

5.4.3 Test of Multicollinearity

This can occur if high intercorrelation among two or more independent variables exists in a regression model. This problem leads to a decrease in the coefficient values, potentially decreasing the power of regression analysis, where it is impossible to test for significance based on p-values due to multicollinearity among independent variables (Jong, 2019).

The Variance Inflation Factor (VIF) was utilized to assess the degree of multicollinearity. Usually, if the value of VIF is above 10, then multicollinearity is said to be present, and if the value is below 10, then multicollinearity is absent. The researchers utilized this test in their work to examine whether strong correlations existed among the variables. It was important to identify and remedy multicollinearity in the work to ensure the results were valid and accurate. The results are shown in Table 4.6.

Table 4.4: Test of Multicollinearity

Variable	VIF	1/VIF
DM	1.04	0.9657

Source: Study data, 2024.

The results in Table 4.6 show that for the dividend management variable, the values for the variance inflation factor (VIF) were 1.04. The fact that a value above 10 signifies the presence of multicollinearity, while a value below 10 signifies the absence of multicollinearity, leads to the interpretation that in this study, there was no multicollinearity in the dataset. Hence, the null hypothesis for no multicollinearity in the variables was not rejected.

The non-resemblance among the variables due to the absence of multicollinearity means that the variables are not highly correlated with each other, thus aiding in the

validity and relevance of the results achieved in the model. In regard to multicollinearity, the considerably small VIF statistics among all the variables mean that the variables act distinctly in determining company performance. The absence of multicollinearity in the research makes it possible to clearly determine the effect of every financial imperative.

5.4.4 Test of Autocorrelation

Autocorrelation refers to the measure of similarity that exists between time series data and its own lagged value over equal time periods. It is interpreted as the relationship that exists between the actual value of the variable at any time and its previous actual value. Autocorrelation exists in the residuals of the models when these residuals are autocorrelated. The autocorrelation test is useful in preventing R-squared from being inflated, thereby exaggerating the actual fit of the model (Kenton, 2021).

The Wooldridge test has been used in this study to test for autocorrelation. For this test, under the null hypothesis, it can be deduced that the panel data lacks any form of serial correlation. The null hypothesis fails to be rejected if the p-values, in this case, are greater than 0.05 significance levels, thereby indicating that there is no serial autocorrelation in the panel data. The Wooldridge test can be used to test whether the error term in the regression model displays any form of temporal correlation. The results were presented in Table 4.7.

Table 4.5: Test of Autocorrelation

Wooldridge test for Autocorrelation **H_{01}: No serial correlation**
F (1, 7) = 0.06 Prob> F = 0.5128

Source: Study data, 2024.

From Table 4.6 below, the Wooldridge test for autocorrelation has an F-statistic value of 0.06 and a p-value of 0.5128. The null hypothesis in the Wooldridge test states that there is no first-order autocorrelation of the residuals. Since the p-value is higher than the interpretative level of 0.05, the null hypothesis is not rejected. The test indicates that there is no statistical significance of the autocorrelation of the residuals. The result shows that the residuals are independent, and hence the regression model is valid and accurate. The result confirms that there is no influence of the effect of the autocorrelation variable, 'Dividend management', on the performance of manufacturing firms.

5.4.5 Test for Heteroscedasticity

This occurs if the variance of the error term is not equal across observations. In this case, there is heteroscedasticity, and it results in small values of the p-value, which may affect and undermine the accuracy of the regression coefficient (Jong, 2019). The null hypothesis in this study states that there is no heteroscedasticity in residuals. However, there are two possible results that determine whether there is homoscedasticity or heteroscedasticity of residuals. The results depend on the chi2 probability value, which is less than 0.05 if there is heteroscedasticity of residuals; otherwise, it is homoscedastic residuals if it is above

0.05 (Jong, 2019). Homoscedasticity is critical within regression analysis. Homoscedasticity results if there is equality of variance of residuals. Heteroscedasticity results if there is inequality of variances of residuals. The significance of using this test is to determine whether there is equality of variances of the error terms among observations.

The results from the Breusch-Pagan test, as validated by a graphical check, showed that there is no evidence of heteroscedasticity in the regression model, with a significance level of 0.2917 for ROE and 0.2525 for the independent variables, both exceeding the significance level of 0.05. It should be noted that this implies a constant variance of the residuals, so that both efficient and unbiased regression coefficients can be obtained. Unlike most preceding studies, wherein heteroscedasticity testing was either not unconducted or employed methods that lack thoroughness, as in graphical checks, a more rigorous approach is taken herein in both heteroscedasticity testing, using Breusch-Pagan statistics, and graphical verification. The results were shown in Table 4.8.

Table 4.6: Breusch-Pagan/Cook-Weisberg for Heteroscedasticity

Ho: Constant variance **Variables: fitted values of ROE**
chi2(1) = 11.45 Prob > chi2 = 0.2917

Source: Study data, 2024.

The results in Table 4.8 showed that the Breusch-Pagan test for heteroscedasticity, with the dependent variable financial performance measured using Return on Equity (ROE), resulted in a chi-squared value of 11.45 and a p-value of 0.2917. The null hypothesis for the Breusch-Pagan test indicated that there was homoscedasticity, meaning the variance of the residuals were constant. Since the p-value was greater than the conventional significance level of 0.05, the null hypothesis was not rejected. This indicated that there was no significant evidence of heteroscedasticity in the residuals.

The absence of heteroscedasticity implied that the variance of the errors was constant across observations, ensuring the reliability and consistency of the regression coefficients. This result validated the robustness of the study's findings, confirming that heteroscedasticity issues did not bias the estimates of the effect of dividend management on the performance of manufacturing firms.

Heteroscedasticity for the independent variable "dividend management" was also tested, and the results are presented in Table 4.9.

Table 4.7: Breusch-Pagan/Cook-Weisberg test for Heteroscedasticity

Ho: Constant variance **Variables: fitted values of CSM FAM DM WCM FRM FS**
F (6, 83) = 3.415 Prob > F = 0.2525

Source: Study data, 2024.

The results in Table 4.9 showed that the Breusch-Pagan test for heteroscedasticity, applied to the independent variable, dividend management, resulted in a chi-squared value of 3.415 and a p-value of 0.2525. The null hypothesis for the Breusch-Pagan test indicated that there was homoscedasticity, meaning the variance of the residuals was constant.

Since the p-value was greater than the conventional significance level of 0.05, the null hypothesis was not rejected. This indicated that there was no significant evidence of heteroscedasticity in the residuals associated with the independent variables. The absence of heteroscedasticity implied that the variance of the errors was constant across observations, ensuring the reliability and consistency of the regression coefficients. This result validated the robustness of the study's findings, confirming that heteroscedasticity issues did not bias the estimates of the effect of Dividend management on the performance of manufacturing firms.

5.4.6 Levin Len Chu Test

The study employed the Levin-Lin-Chu test to test for stationarity. Probability values lower than 0.05 indicate that the null hypothesis is not accepted. This test was useful in the study to establish the stability of the values that fluctuate over time. The results are shown in Table 4.10.

Table 4.8: Levin Lin Chu Test

Variable	Obs	Unadjusted t	Adjusted t*	p-value
DM	90	-9.3574	-4.8262	0.0000
ROE	90	-10.2778	-6.9358	0.0000
EPS	90	-10.7811	-7.2161	0.0001
ADF regressions: 1 lag LR variance: Bartlett kernel, 6.00 lags average (chosen by LLC)				

Source: Study data, 2024.

The results in Table 4.10 above showed the Levin-Lin Chu stationarity test results of the study. The p-values of dividend management, return on equity and Earnings per share were all less than the 0.05 level of significance, indicating that we reject the null hypothesis and conclude that the panel did not contain a unit root.

The results of the Levin-Lin-Chu (LLC) test provided strong evidence that all key variables in the study, dividend policy and financial performance measures (ROE and EPS) were stationary at the level, as indicated by p-values well below the 0.05 threshold.

This finding rejects the null hypothesis of a unit root and confirms that the data series fluctuates around a constant mean over time, which validates the use of panel regression without differencing. Unlike previous studies, which either assumed stationarity or used less rigorous unit root tests like the Augmented Dickey-Fuller (ADF) test in isolation, this study applied the LLC test under the panel framework, ensuring more robust and reliable results suitable for multi-firm time series data.

5.5 Random Effects of Dividend Management and Performance (Return on Equity) of Manufacturing Firms

The multiple regression model for this study was determined by comparing fixed and random effects. The Hausman test was used to choose either fixed or random effect models.

5.5.1 Hausman Test Results

In panel data analysis, selecting between a fixed and a random effects model is essential. Hausman testing is frequently used to differentiate between fixed and random effect models. The null hypothesis of the Hausman test is that the random effects model is appropriate for the study. The results were displayed in Table 4.13.

Table 4.9: Hausman Tests Results without Moderating Variables

Variable	(b) Fixed	(B) Random
DIM	.3929	.2310
b = consistent under Bo and Ba; obtained from xtreg B = inconsistent under Ba, efficient under Bo; obtained from xtreg Test: Bo: difference in coefficients not systematic $Chi^2(3) = (b-B')\ [(v\_b-v\_B)9-1)](b-B) = 2.31$ $Prob > chi^2 = 0.3404$		

Source: Study data, 2024.

Based on Table 4.13, the chi-square value obtained from the Hausman test was not statistically significant because its P-value was approximately 0.3404 when tested at a significance level of 5%. The test, therefore, revealed that it is appropriate to use a random effects model for the study because it failed to reject the null hypothesis. The random effects model was thus applied to specify a regression model that examines the influence of dividend management on the performance of manufacturers in Kenya.

5.6 Random Effects of Dividend Management and Performance (Earnings per Share) of Manufacturing Firms

Random effect was used to determine the multiple regression model of Dividend management and performance of manufacturing firms when measured using Earnings per share.

5.6.1 Hausman Test Results

In the context of panel data, the Hausman test aids in determining whether to use either the fixed or random effects model. The test is useful in making comparisons between the estimated results from both models in terms of statistical significance. The null hypothesis of the Hausman test is that the random effects model is consistent and efficient, meaning that there is no significant difference between the estimates of the fixed and random effects models. The results are shown in Table 4.15.

Table 4.10: Hausman Test without Moderating Variable

Variable	(b) Fixed	(B) Random
DIM	**.3015**	**.2531**
b = consistent under Bo and Ba; obtained from xtreg B = inconsistent under Ba, efficient under Bo; obtained from xtreg Test: Bo: difference in coefficients not systematic $Chi^2(3) = (b-B')\ [(v\_b-v\_B)9-1)](b-B) = 2.13$ $Prob>chi^2=0.3061$		

Source: Study data, 2024.

5.6.2 The Effects of Dividend Management on Performance (Return on Equity) of Manufacturing Firms

A panel regression analysis was carried out to examine the relationship between dividend management and the financial performance of manufacturing firms in Kenya. Table 4.17 displayed the results of this panel regression analysis.

Table 4.11: Random Effects Model Results without Moderating Variable

Variable	Coef.	Std. Err.	Z	P>/z/
DM	0.2310	0.0291	7.90	0.000
Con	0.1012	0.0165	6.13	0.000
	R-sq: Within = 0.4817 Between = 0.5216 Wald $chi^2(3) = 49.16$ Overall = 0.4817 $Prob>chi^2 = 0.0000$			

Source: Study data, 2024.

The study used a random effect model to develop a panel regression equation for the model without a moderating variable. The results were presented in equation 1 below.

$$ROE_{it} = 0.1012 + 0.2310DM_{it} + \varepsilon 1_{it} \quad (2)$$

Where:
ROE represents Return on Equity,
DM represents Dividend Management.

The constant 0.1012 from the regression model (1) indicated that the financial performance measured in terms of ROE of manufacturing firms would be at 10.12%.

The results show that the overall value of R-squared is 0.4817. This implies that 48.17% of the variation in financial performance in manufacturing companies is explained by the random effects model, which includes dividend management.

Following Modern Portfolio Theory, a performance level of 48.17% indicates that, although returns are being realized, they are not optimal. Modern Portfolio Theory considers the risk-return tradeoff and the process of diversification. A performance level of 48.17% could be the result of inappropriate use of the identified factors. The other 51.83% of the explained variation in the performance of the manufacturing companies can be attributed to the unmodeled factors. Therefore, the explained variation accounts

for 48.17% variation in the financial performance exhibited by the firms. The use of dividend management may not be realizing maximum returns due to inappropriate use of the factors.

First, the outcome of the study, which reveals that dividend management explains 48.17% of the changes in Return on Equity (ROE) among manufacturing firms in Kenya, is theoretically sound and practically useful. Theoretically, this outcome is supported by Modern Portfolio Theory, which proposes maximizing return while minimizing risk.

This research work contributes to the field by the inclusion of various components related to the management of dividends and examining the same through a local setting that has been considered less researched to some extent. As regards the policy recommendations, it can be identified that the findings indicate that there needs to be an enhanced focus by the finance managers on the improvement of management practices related to dividends, as their strong correlation exists with the increased ROE.

Indeed, the fact that more than 51% of the variation in performance is not explained suggests the importance of exploring the moderating role of firm size in determining the way in which dividend management affects performance outcomes. Therefore, whereas the model verifies the partial efficiency of financial approaches in enhancing performance, it also underlines the significance of firm-specific skills, governance patterns, and industry factors, in which further research could aim at better results in the realms of performance as well as economic development at the national level.

From a policy point of view, in particular, this study argues that financial frameworks in Kenya need to be designed to suit the context of the business environment in the country. It is recommended that a balanced capital structure and transparent dividend policies, especially among manufacturers, who are central to the growth of the industry, be taken into account. Another way in which this study advances scholarship is through an exemplary application of finance principles in a unique setting, thereby opening up a new avenue of research in finance in context. The result of the study aimed to determine the significance of dividend management, measured using the dividend payout ratio, and the financial performance of manufacturing companies. The null hypothesis held that the significance of dividend management was not important for the firm's performance. Results of the significance of the dividend payout ratio within Table 4.17 show the significance of the dividend payout ratio and the financial performance of manufacturing companies. The result reported positive and significant coefficients of 0.2310, and the probability values of the result illustrated 0.000, meaning the result was less than 0.05, and the result reported a Z-statistic of 7.90, higher than the Z-critical of 1.96.

5.6.3 The Effects of Dividend Management on Performance (Earnings Per Share) of Manufacturing Firms

Panel data regression was analyzed to determine the effects of dividend management on the financial performance measured using earnings per share of manufacturing firms in Kenya. The findings were presented in Table 4.19.

Table 4.12: Random Effects Model Results without Moderating Variable

Variable	Coef.	Std. Err.	Z	P>/z/
DM	0.2531	0.0365	6.93	0.000
Con	3.2139	0.3453	9.31	0.001
R-sq: Within = 0.4567 Between =0.4963 Wald $chi^2(3)$ =46.62 Overall =0.4574 Prob>chi^2 =0.0000				

Source: Study data, 2024.

The random effect model above was used to determine the panel regression equation below:

$$EPSit = 3.2139 + 0.2143CSMit + 0.2531DMit + 0.2166FAMit + 0.3028WCMit + 0.1317FRMit + \varepsilon 1it \quad (3)$$

Where:
EPS represents Earnings per Share.
DM represents Dividend Management.

The results in Table 4.19 above show the value of the constant to be 3.2139. The constant is significant at a 95% confidence level, with a p-value of 0.001 ($p < 0.05$) and a Z-statistic value of 9.31, which is larger than the critical value of 1.96. Therefore, this suggests that in the absence of dividend management practices, the performance of the manufacturing companies in terms of earnings per share (EPS) is at a value of 3.2139.

Furthermore, the findings indicate that the overall test model is significant from a statistical standpoint, indicated by the value of 'Prob > chi2 = 0.0000' being below the critical level of '0.05.' The overall model provides an 'R-squared' of '0.4574' within its random effects model, indicating that '45.74% of the variation in financial performance of manufacturers is accounted for by the random effects model containing financial imperative principles like dividend management.' The '54.26%' is considered to be beyond the scope of explanation by the regression model.

Thus, the model explains 45.74% of the variation in the financial performance of the manufacturing firms. It may be due to less-than-optimal utilization of the above factors. The regression outcomes in Table 4.16 are of vital significance in understanding how Dividend Management impacts the financial performance of the manufacturing firms in Kenya, using the measure of Earning Per Share.

The constant term of 3.2139 is significant since p-value = 0.001 < 0.05, which shows that even in the absence of any financial capitalization efforts, manufacturing companies have some level of performance. On the other hand, the explained variance of 45.74% from the random effects model indicates that although the EPS is important, it is not the only factor that determines the company's performance.

This leads to the argument that the limitations in the level of explainability might not solely be grounded on the less-than-optimal fulfillment of the above-mentioned imperatives, but might also be grounded on the neglect of firm-specific contextual

variables that would subsequently be accounted for by including firm size as the moderating variable in the analysis.

In what way is this research different from previous ones in its approach to the Dividend management context in a developing country like Kenya? A case in point is that, whereas the leverage of capital structure is widely cited in finance theory as a crucial factor in firm performance, the empirical results in this research show a negative and significant effect on performance, contrary to the irrelevance theory proposed by Modigliani & Miller (1958), which argued the impossibility to determine a specific capital structure in a perfect market context as a result of tax benefits for debt.

These results are supported by more current literature trends in the African environment (for example, Abor, 2005) regarding the dangers of excessive leverage within uncertain economic settings. Contrary to prior literature trends that normally present broad-based survey conclusions, the current study places the capital structure decision within the limits imposed on Kenyan manufacturers, like higher interest rates.

On dividend policy, the negative associations identified in the model align with other studies in the literature, but this work argues that these are moderated by firm-specific dynamics. For instance, 45.74 percent owing to asset efficiency indicates that while asset efficiency can contribute toward improved profitability, this can only happen when it aligns itself with technological adaptation or supply chain effectiveness in focus firms. Moreover, despite it having a positive impact, it should also take into consideration reinvestment requirements, especially in manufacturing industries characterized by higher costs due to which internal funding sources would be easily accessible than external borrowings.

On theoretical grounds, it suggests strongly that there is validity in the resource-based view (RBV) that Dividend management works best when it is aligned with capability within. In terms of policy implications, there is equal validity: financial schemes, industrial credit, and taxation must factor in size variability. One-size-fits-all financial education or small business assistance is not likely to produce standardized results without taking into consideration the realities of these businesses' structures. In terms of including size variables in Dividend management interpretations, this paper offers both an innovative approach and practical implications to an area of study that tends towards oversimplified generalizations.

As depicted in Table 4.19, the dividend payout ratio has the regression coefficient of 0.2531, the Z value of 6.93, and the p-value of 0.000. For verifying the hypothesis that the dividend management factor significantly influences financial performance, the Z value is tested against the critical value of 1.96, whereas the p-value is tested against the significance level of 0.05. Compared to the critical value, if the Z value is greater than 1.96, or if the p-value is less than the significance level of 0.05, then the null hypothesis is rejected. As such, the Z value (6.93) is greater than the critical value of 1.96, whereas the p-value (0.000) is less than the significance level of 0.05. Hence, the null hypothesis is rejected, concluding that the financial performance of the manufacturing sector is significantly influenced by the dividend management factor, which is calculated through

the dividend payout ratio, thereby positively affecting the financial performance of manufacturing firms.

5.6.4 Comparison of the Effects of Dividend Management on the Performance of Manufacturing Firms Measured Using Return on Equity and Earnings per Share

On examining the financial performance of the manufacturing sector using Return on Equity (ROE) and Earnings Per Share (EPS) without the moderating effect of firm size, both ratios are found to be very sensitive to the Dividend management, but in a differing manner. The R-square statistic of ROE is 0.4817, which suggests that 48.17% of variation in ROE is explained by the Dividend management. Likewise, the R-square statistic of 0.4574 suggests that 45.74% of the variation in EPS is explained by the Dividend management framework.

Although both models demonstrate a comparable level of explanation, the slightly higher R-Squared value of ROE suggests that the management of dividends has a slightly greater influence on return on equity than earnings per share. This might be due to the fact that ROE is more closely related to the profitability of the firm as a whole than is EPS, both of which are largely impacted by financial management practices, while factors such as market conditions might affect EPS.

The results that emerge from the comparative analysis on the impacts of Dividend management on the performance of manufacturing companies, using both ROE and EPS, provide new perspectives that enhance the existing body of literature. In contrast with existing literature that views financial performance as a unidimensional entity, it is revealed that although both ROE and EPS are significantly affected by the Dividend management variable, their sensitivities vary.

However, it should not be overlooked that there exist other opinions in the literature on the contradictory effects exerted by Dividend management on organizational performance. The outcomes obtained in the current study show that organizational factors, in particular size, exercise a significant moderating effect on such relationships, indicating that larger organizations have greater potential for effectively using Dividend management in practice. For instance, contingency theory specifies that organizational factors should be taken into account in studying financial performance outcomes.

Theoretically, they add to the development of better approaches to financial management by pointing out the conditional nature of the impact on financial performance. Finally, they are applicable by suggesting that policymakers and firm administrators could focus on firm-specific size and circumstances. Additionally, they are applicable by suggesting that their dividend policies are sensitive to different groups of shareholders as defined by their EPS and ROE. This study emphasizes the joint effect of Dividend Management and firm size. It supplies insights that add to the continued debate on the effectiveness of financial management as practiced by emerging markets. Analysis of the findings shows that the positive and significant influence of dividend management on the measure of financial performance is shown differently. If the measure of financial performance is based on the ROI, the coefficient is 0.2310, with a Z-

statistic of 7.90 and a p-value of 0.000. On the other hand, the coefficient is 0.2531, with a Z-statistic of 6.93 and a p-value of 0.000 for the measure of financial performance based on the EPS. The influence of the dividend management measure on the measure of financial performance is significant and stronger for the EPS than the ROI. This explains the fact that, ceteris paribus, the EPS is relatively more affected than the ROI, possibly because the former measures the reported earnings per share, while the latter measures the return on equity, and the latter is directly influenced by the dividend payout ratio than the former.

6. Discussions of Key Results

Under the Bird-in-Hand Theory, the dividend payout ratio of 0.2310 shows that the level of dividend distribution is low in comparison to the profits. As stated in the Bird-in-Hand Theory, the current dividends are more preferable to the capital gains. Therefore, the results revealed that the null hypothesis that dividend management has no significant influence on the performance of the manufacturing firms is rejected. Although the payout ratio is low, it also states that the company is utilizing the funds to expand, which could, in the end, lead to an increase in future profits or capital gains.

This research makes a contribution to existing literature because it clearly establishes that one-sided earnings retention by a company leads to a loss of investor confidence, whereas overpayment of dividends can form a hurdle for growth in the future. The most important policy implication of the study relates to the need for the formulation of regulatory policies to help firms strike a balance in their dividend policies for the mutual advantage of the shareholders, as well as firms' need to divert the same for future growth purposes.

The findings of the research established that the dividend management ratio, represented by the dividend payout ratio, positively influenced the financial performance of the firms in the manufacturing sector in Kenya. The 23.10% change in ROE evidently supports the fact that firms' dividend policies are employed as effective financial tools for decision-making purposes rather than routine actions, consistent with the bird-in-the-hand approach that focuses on the fact that dividends are certain rather than potential returns in the future.

These results can be seen as an extension of research previously conducted by Komolng'ole & Mwenda (2023) and Yegon *et al.* (2014), both in that they replicate these studies, while also applying panel regression techniques that involve random effects to a relatively contemporary dataset that is specific to the sector under review. Unlike research that had been conducted previously, with a focus that was essentially cross-sectional, this approach enables a better understanding that takes into account sector dynamics that vary based on growth cycles.

However, it is important to consider that, based on the Modigliani and Miller dividend irrelevance theory, it could be argued that dividends do not affect corporate value under ideal markets. Using this line of logic, it could therefore be argued that reinvesting earnings in production assets could potentially provide greater returns to

stockholders than could otherwise be accomplished by dividends. Additionally, a company's innovation and growth may be suppressed by too much focus on dividends. Accordingly, there is a clear positive relationship between DP and ROE; however, the theoretical implication is that a dividend strategy must strike a balance between rewarding shareholders in a manner that builds market confidence without undermining reinvestment in business. Established firms can afford to distribute more of their earnings without undermining growth, but new firms can gain more from reinvesting their earnings. This study, therefore, fills a gap in a more theoretical debate by presenting a roadmap on how firms in the manufacturing sector can formulate their dividend strategies.

Findings from the study show that an increase in dividend management increases the earnings per share by 25.31%, indicating a positive association between the dividend payout ratio and performance. Lower dividend payout is associated with the reinvestment of gains within the company. The large z-value and p-value, respectively, indicate that the influence of dividend management on performance is not due to random sampling and is reliable. The implication is that how manufacturers manage their dividend payout has a very positive influence on their financial performance, especially with respect to their earnings.

The results go against the Bird-in-the-Hand Theory that suggests investors consider the immediacy of gains received from dividends over potential gains on their investment. The theory states that companies that have been paying out and increasing their dividends signal that they have been performing financially well, which might enhance their stocks and future financial performance. The result supports the idea that the ratio and management of the company's dividends is imperative in improving the firm's financial and market performance.

Furthermore, Mutua and Atheru (2020) argued that the dividend payout ratio plays a positive and significant part in the performance results of Kenyan companies. In this case, firms with a high dividend payout ratio tend to perform better. Therefore, this goes to show the significance of the results obtained in this study, since they form part and parcel of the existing body of knowledge on the topic.

The result that dividend management, via the dividend payout ratio, positively enhances the financial performance of manufacturing companies in Kenya, improving earnings per share by 25.31%, helps to explain the link between dividend payments and profitability. There is some literature to suggest that firms that pay out high dividends could be limiting their ability to invest in growth opportunities, which could be detrimental to their financial success, particularly within industries like manufacturing that have high capital requirements. Thus, this study makes an important contribution to the literature by including firm attributes as moderation variables, thus indicating that the debate on the relationship between dividend management and performance is not standard but dependent on firm size, debt, and efficiency in the Kenyan market. Moreover, as opposed to past studies that had concentrated mostly on the specific relationship between performance and dividend payments, this research specifically explores the relationship and interaction between dividend management and other

related finance constructs. An entire literature section would be required for an inclusive literature survey on the entire topic.

On a theoretical front, these results endorse a contingency approach whereby the mediation effects of dividend management on performance are contingent on an overall financial approach. From a policy point of view, these results provide an indication that regulatory institutions within Kenya need to focus on formulating an appropriate dividend approach towards maximizing and conserving funds within an entity. Improving an entity's discretion to derive an appropriate approach towards dividends will prove crucial in maintaining its competitiveness within the manufacturing industry.

8. Conclusions of the Study

Dividend management was established to have a positive and significant relationship with the performance of manufacturing firms. This was supported with a correlation coefficient of 0.2354 and a p-value of 0.0012. The regression analysis results also showed that dividend management has a positive and significant effect on the performance of manufacturing firms without and with a moderating effect of firm characteristics. This was evidenced with regression coefficients of 0.2310 with a p value of 0.000 and 0.3197 with a p value of 0.003, without and with a moderating effect of firm characteristics, respectively.

Therefore, it was concluded that dividend management, when moderated and not moderated with firm characteristics, had a positive and significant effect on the performance of manufacturing firms in the Nairobi Stock Exchange. The issue of dividends or retaining earnings need not be a serious issue in gauging the performance of firms, since retaining earnings will increase investments and add future dividends for the investors.

8.1 Recommendations of the Study

The study established that dividend management had a positive and significant effect on the performance of manufacturing firms in the Nairobi Stock Exchange. It was recommended that manufacturing firms listed on the Nairobi Stock Exchange should maintain a consistent and sustainable dividend payout ratio.

The study also recommended that the selected manufacturing companies in Kenya should pay more attention to leverage and profitability ratios, which influence dividend payout positively, and that investors should use this information to make better investment decisions regarding which industries to invest in order to reap better benefits in terms of dividends.

Conflict of Interest Statement

The author has no conflicts of interest.

About the Author

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