

# **EFFECTS OF EARNING MANAGEMENT DETERMINANTS ON FINANCIAL PERFORMANCE OF TEA PROCESSING FACTORIES IN NANDI COUNTY, KENYA. MODERATING ROLE OF FIRM SIZE**

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## **ABSTRACT**

Dividends are important to shareholders and potential investors in showing the earnings that a company is generating. A major determinant of dividend payment is the anticipated level of future earnings. Healthy dividend payouts thus indicate that companies are generating real earnings rather than cooking books. The dividend payment is one of the major drivers for investing in stocks has been center of interest among stakeholders mainly investors, management and academic fraternity in an attempt to find out the determinants of dividend payout. The general objective of this study was to determine the effects of earning management determinants on financial performance of tea processing factories in Nandi County, Kenya. Moderating role of firm size. The specific objective of the study was to; examine the relationship between liquidity on financial performance of tea factories in Nandi County. The study was anchored on the following theories: Dividend irrelevance theory and Bird-in-hand theory. A cross-sectional research design was adopted. The target population was 19 tea factories. The sample size was 18 tea processing companies selected through stratified-random sampling. Data was collected using a data sheet from

annual reports. Data collected was analyzed using both descriptive (minimum, maximum mean and standard deviation) and inferential statistics (correlation and regression analyses) with the aid of SPSS version 20.0 and the findings was presented using tables and figures. The study found out that thus Kapsombeiwa Tea Factory had the highest liquidity leading higher financial performance while Tinderet Tea Estate had the lowest liquidity. Higher liquidity enhances financial performance. The study further discovered that liquidity had strong but negative correlation with financial performance of tea factories in Nandi County  $r=-.584(**)$ ,  $P=.000<0.01$ . Thus any changes in liquidity led to a significant decline in financial performance of tea factories in Nandi County. Additionally it was noted that liquidity had a negative but significant effect on financial performance of tea factories in Nandi county  $r=-.091$ ,  $t=-7.391$ ,  $P=.000<0.05$ . Thus a unit change in liquidity led to decline in financial performance of tea factories significantly. The study recommended that tea factories should manage carefully the number of shareholders on board at any given time.

## **INTRODUCTION**

Earnings management refers to the practice of managers to undertake some managerial actions on the company's performance variables, which are reflected in the company annual financial statements. The practice of earnings management in the firms aims at giving the impression of smooth annual earnings by showing a high profit for the current accounting period at the expense of future earnings or to lower the current earnings in order to report high earnings in the future (Ronen & Yaari, 2008). Companies that have high earnings management due to high average

discretionary accruals in an absolute term which equaled 11.91 percent of total assets based on Kasznik Model and 12.55 percent of total assets based on Kothari Model. Moreover, earnings management is found to own positive influence on the dividend yield of listed companies in MAI. That is, simple fraction increase in discretionary accruals in an absolute term as a proportion of total assets will lead to about a 0.2 percent increase in dividend yield. In contrast, earnings management is found to have no influence on dividend payout ratio (Chansarn & Chansarn, 2016).

Earnings are utilized by firms to settle on accounting decisions or to outline exchanges in a way that it will influence the odds of riches exchange between the organization and society, support suppliers or administrators. Earnings played two roles; the informative and the stewardship part. The instructive part emerges from financial specialists' interest for information to anticipate future money streams and evaluate their hazard while the stewardship part originates from the division of proprietorship and management out in the open firms which set the director in a place of a steward to investors (Stolowy & Breton, 2004).

Earnings management group enables specialists to explore determinant of company's decision of various levels of earnings management practice. Few efforts had been made over the years to contemplate earnings management and corporate administration of Nigerian firms cited (Uadiale, 2012). A study on the effect of earnings management processes among firms in South Africa through creating choices of accounting or creating decisions of operations that affected the reported earnings discovered that management of earnings mainly used accruals and were still the most popular studies in economics and financial studies (Kang & Kim, 2011).

Earnings management enhances the financial performance of firms and that the firms that undertake various earnings management practices among them revenue timing, revenue projections, shifting of earnings and revenue recognition to improve financial performance. The study conjointly found that expense management practices promoted the monetary performance of non-financial companies listed with NSE and that good expense management practices involving recognition of expenses, reserves, and inventory in addition to the reduction in discretionary expenditures influenced the firms' performance. The study found assets and liability management by companies doesn't promote the financial performance of companies which overstating assets and understating liabilities, and concealment of liabilities negatively affected the financial performance of firms. However, it was also found that proper inventory management practices, proper management of accrued payable expenses and accounts payable promotes profitability performance of firms (Wangui, 2017).

Earnings management is related with corporate governance case: Nairobi all share index banks was carried out by assessing a sample of 8 listed banks in the Nairobi All Share Index (NASI) over a period of 7 years: 2007 to 2013. The level of earnings management was measured using discretionary accruals that were estimated by the Modified Jones Model. The corporate governance variables chosen include the age of CEO, board size and board meetings that were regressed against discretionary accruals. Overall it was found there is a presence of earnings management in the banks listed in NASI. Another finding was that there exists a relationship between earnings management and corporate governance in the listed banks in NASI. At a 95% confidence level the older the CEO

the higher the level of earnings management with the intention of trying to secure a high compensation at retirement (Wasike, 2015).

Financial performance has an insignificant relationship with the dividend policy of selected firms in Pakistan. The financial crisis in the world and economic decline period are the main reasons for this relationship. In the decline period, the firms try to increase manipulation in earnings, as a result, the company starts reducing dividend payments. There are some other factors that may influence the pattern of dividend payment in the firms (Saleem & Alifiah, 2017).

Liquidity effects on earnings management have been studied. A study on the effect of leverage and liquidity ratios on earnings management and capital of banks listed on the Tehran Stock Exchange showed that liquidity ratio has a significant positive effect on earnings management of banks, therefore increasing the degree of liquidity ratio and by increasing liquidity, the possibility of using discretionary accruals and earnings management at banks increase. The results also showed that liquidity ratio has a significant negative effect on the bank's capital adequacy ratio and with increasing financial leverage bank capital adequacy ratio is reduced (Moghaddam & Abbaspour, 2017).

Liquidity affects the profitability of Banks in Canada aimed at helping to distinguish empirically, whether banks holdings of liquid assets have a significant impact on their profitability (Graham & Bordelea, 2010). Since current assets such as cash and government securities usually have a relatively low return, holding them imposes an opportunity cost on a bank. In the model, profitability is regressed as a non-linear expression of relative liquid asset holdings as well as a set of control variables. The relationship is a function of the liquid assets ratio, a measure of short-term funding reliance and general macroeconomic conditions (Graham & Bordeleau, 2010).

### **Statement of the Problem**

Financial performance for tea processing factories in Nandi County have been declining over the past few years. The companies declared a final dividend of Ksh 0.30/share making the total dividend payment for 2016 to stand at Ksh 0.45/share an increase of 28.57% from Ksh 0.35 declared in 2015. Financial performance was Ksh 662.3 million in 2016. Moreover, the companies declared a lower final dividend of Ksh 0.28/share and Ksh 0.25/share in 2017 and 2018 respectively (NSE Equity Report, 2018).

Mung'aru (2017) carried out a study on the effects of earnings on dividend payout for companies listed at Nairobi Securities Exchange (NSE) to establish how and the extent to which company earnings, liquidity and determine financial performance for firms listed at the NSE. Kinyua (2013) assessed the relationship between earnings management and dividend payout of the listed firms at the NSE. These studies did not show the relationship between earnings management determinants and Financial performance due to distinct variables; hence the current study seeks to fill this gap by focusing on the moderating effect of firm size on the relationship between earnings management determinants on Financial performance among tea processing factories in Nandi County, Kenya.

## **Objectives of the study**

### **General objective**

The general objective of this study was to determine the effects of earning management determinants on financial performance of tea processing factories in Nandi County, Kenya. Moderating effect of firm size.

### **Specific Objectives**

- i. To assess the effects of liquidity on financial performance of tea processing factories in Nandi County, Kenya

### **Research Hypotheses**

**H<sub>01</sub>:** Liquidity has no statistically significant effect on financial performance of tea processing Factories in Nandi County, Kenya

## **LITERATURE REVIEW**

### **Review of Theories**

#### **Dividend Irrelevance Theory**

The theory was advanced by Modigliani and Millers in 1961. The theory argues that dividends are irrelevant to the firm's value under perfect capital markets since they have no effect on either the price of a firm's stock or on its cost of capital. They suggested that a firm's value is determined by its investment policy and thus the manner in which earnings are split between retained earnings and dividends does not affect the firm's value (Stulz, 2000).

The theory assumes that there exist perfect capital markets without taxes or transactional cost, the market price cannot be influenced by a single buyer or seller and free and costless access to information about the market; that investors are rational and that they value securities based on the value of discounted future cash flow to investors; that managers act as the best agents of shareholders; and that there is certainty about the investment policy of the firm, with full knowledge of future cash flows (Pandey, 2010).

The limitations of the theory include the fact that Modigliani and Miller have argued that it makes no difference to the investors if a firm retains earnings or declares a dividend. According to them, retained earnings and external financing balance each other. Their assumptions appear to be unrealistic and unpractical although theoretically, it is appealing. Some of the problems of MM approach are due to imperfect markets, transaction costs, floatation costs and uncertainty of future capital gains and the preference for current dividends. These are listed out. MM model assumes that there are perfect capital markets (Dhanani, 2005). Such perfect markets do not exist in the practical world. MM model assumes that there are no floatation costs and no time gaps are required in raising new equity capital. In the practical world, floatation costs must be incurred and legal formalities

must be completed and then issues can be floated in the market. Although the model assumes that there are no transaction costs in the real world there is an expense leading to commission and brokerage to sell shares. Therefore, shareholders do have a preference for current dividends.

Critics of the dividend irrelevance theory note that none of its assumptions are realistic. Both companies and investors are required to pay income tax. There are also flotation and transaction costs that affect investor behavior. This allows critics to claim that in reality, a company's dividend policy affects the value of the company, its capital structure, and investor behavior. The model assumes that there is no tax. This assumption is not realistic as taxes have to be paid when shares are sold and there is a capital gain. Thus, an investor prefers current dividends. MM model states that a company is able to issue additional equity shares. This model is not valid when there is underpricing or sale of shares at a price which is lower than the current market price. This means that the firm will have to sell more shares if it does not want to give a dividend. In this condition, the firm should be retaining the profits and not pay dividends. Therefore, the model is not applicable to uncertain conditions (Al-Malkawi *et al.*, 2010).

In relation to this study, the theory supports that shareholders are able to replicate any dividend streams that corporations might be able to generate such that if dividends are lower than desired, investors can sell part of their shares to obtain their desired dividends and if the dividends are higher than desired, they can use the unwanted dividends to purchase additional shares in the company (home-made dividends that are earned).

### **Bird-in-Hand Theory**

The theory was proposed by Gordon and Lintner in 1963 and the theory proposes that a relationship exists between firm value and dividend payout. It states that dividends are less risky than capital gains since they are more certain. Gordon and Lintner claimed that Modigliani and Miller made a mistake assuming lack of impact of dividend policy on a firm's cost of capital. They argued that lower payouts result in higher costs of capital. They suggested that investors prefer dividend as it is more certain than capital gains that might or might not appear if they let the firm retain its earnings. The authors indicated that the higher capital gains/dividend ratio is, the larger total return is required by investors due to increased risk. In other words, Gordon and Lintner claimed that one percent drop in dividend payout has to be offset by more than one percent of additional growth. Investors would, therefore, prefer dividends to capital gains. Because dividends are supposedly less risky than capital gains, firms should set a high dividend payout ratio and offer a high dividend yield to maximize stock price (Amidu, 2007).

This theory is based on a number of assumptions; the firm is an all-equity firm that is it has no debt in its capital structure. No external financing is available and consequently retained earnings are used to finance an expansion of the firm. There are constant returns which ignore diminishing marginal efficiency of investment. The firm incurs a constant cost of capital (Ouma, 2012).

The theory is limited in that we're investing is concerned, what is comfortable is rarely profitable. Dividend investing at 4 to 5% per year provides near-guaranteed returns and security. However,

over the long term, the pure dividend investor earns far less money than the pure capital gains investor. Moreover, during some years, such as the late 1970s, dividend income, while secure and comfortable, has been insufficient even to keep pace with inflation (Lasher, 2008).

Bird-in-the-hand theory was criticized by Modigliani and Miller who claimed that dividend policy does not affect the firm's cost of capital and that investors are totally indifferent if they receive more dividend or capital gains. They called Gordon and Lintner's theory a bird-in-the-hand fallacy indicating that most investors will reinvest the dividend in the similar or even the same company and that company's riskiness is only affected by its cash-flows from operating assets (Deeptee & Roshan, 2009).

In relation to this study, the bird-in-the-hand theory claims that investors' behavior is affected by the dividend payout rate rather than capital gains. Also, the theory states that the higher is the proportion of capital gain in total return, the higher is the required rate of return of investors, and therefore the cost of capital of the company.

## **Empirical Literature Review**

### **Liquidity and Dividend Payments**

Abu (2012) did research on the liquidity and dividend payout policy: Evidence from Bangladesh. The six independent variables used for this study were: sales, earnings per share, net income, liquidity, retained earnings and price-earnings ratio. With the use of Operating Least Squares, the results identified EPS to be negatively significant for dividend payout policy; NI to have a positive effect on dividend payout; revenue (sales) has no effect on dividend payout; P-E ratio does not have any effect on dividend payout policy and liquidity may have a significant role for dividend payout. The results concluded that dividend payout of commercial tea processing factories in Bangladesh is based upon NI rather than other variables selected in the analysis.

Waswa, Ndede, and Jagongo (2014) looked at the effect of liquidity and dividend Payout by Agricultural Firms in Kenya (An Empirical Analysis of Firms Listed on the Nairobi Security Exchange). This research is an attempt to analyze the determinants of dividend payout of Kenya Agricultural sector. It also focused on identifying whether various factors available as per literature influence dividend payout ratio in the Agricultural sector in Kenya in the existing scenario or not. Statistical techniques of correlation and regression were used to explore the relationship between key variables. Thus, the main theme of the study was to identify the various factors that influence the dividend payout policy decisions of Agricultural firms in Kenya listed on the Nairobi Securities Exchange. The objective of the study was achieved by adopting the panel data estimation technique using multiple regressions because it is the best method to use when dealing with micro-units in the economy. Data analysis was carried out using the Statistical Package for Social Scientists (SPSS) version 17.0. The results show positive relationships between dividend payout and liquidity and profitability. The results also show negative associations between dividend payout and firm's growth, Firm size and leverage. These results are consistent with the prediction by many authors.

Elmi and Muturi (2016) looked at the effects of liquidity and dividend payout by commercial and services firms listed in the Nairobi securities exchange. The objective of the study was to establish how and the extent to which company earnings, liquidity, leverage, and company size determine DPO for firms listed at the NSE. The research employed secondary data which was analyzed utilizing SPSS software version 20 and the results presented in tables. The results consistently support the potential association between the four independent variables and the dependent variable (dividend payout) for firms listed at the NSE. Earnings leverage and company size had a positive correlation with DPO while liquidity had a negative correlation with DPO. At 5% level of significance, earnings were found to be a significant determinant of DPO while other variables of the research were not significant. The study used the F-statistic to test the overall significance of the regression model and the model was found statistically significant and suitable for this study. During the five-year study timeframe, the findings indicate that a combination of all the four independent variables (company earnings, liquidity and firm size accounted for 65.8% of the variations in the dependent variable (DPO) of firms listed at the NSE. It is against these findings that this research study arrived at the conclusions that earnings had the greatest effect on dividend payout for companies quoted at the NSE.

Kibet (2010) examined the relationship between liquidity on DPS for companies listed at the NSE. He used multivariate regression analysis to analyze data. The study sample included 35 firms quoted at the NSE from the year 2007 to 2011. Using dividend payment as the response variable and leverage and EPS as predictor variables, he concluded that there is a positive influence of liquidity on DPO. Other variables such as leverage, profitability, corporate tax, sales growth, industry, and EPS were also found to have a positive relationship with DPS.

Kiboi (2015) examined the association between liquidity and DPS for firms trading at the NSE. The study also included other variables such as retained earnings and liquidity. The researcher used descriptive analysis, correlation analysis, and multiple regression model to analyze the data. He established a positive and significant association between liquidity and DPS. Liquidity and retained earnings were found to have a negative but insignificant effect on DPS.

## **Research Gaps**

From the literature reviewed, it is evident that a number of studies have been conducted on earnings management and dividend payouts among companies in different sectors. Waswa, Ndede, and Jagongo (2014) looked at the effect of liquidity and dividend payout by Agricultural Firms listed on the Nairobi Security Exchange. This research is an attempt to analyze the determinants of dividend payout of Kenya Agricultural sector. The objective of the study was achieved by adopting a panel data estimation technique using multiple regressions because it is the best method to use when dealing with micro-units in the economy. The study failed to apply correlation analysis which is a study of the association between the dependent and the independent variables.

Elmi and Muturi (2016) looked at the effects of liquidity and dividend payout by commercial and services firms listed in the Nairobi securities exchange. The objective of the study was to establish

how and the extent to which liquidity and company size determine DPO for firms listed at the NSE. Elmi and Muturi did not include the profitability of which the current study includes.

Mworira (2016) looked at the relationship between financial leverage ratio and dividend payout ratio of firms listed at the Nairobi Securities Exchange. The study adopted a quantitative research method and utilized both an Ordinary least square (OLS) and a multivariate analysis. Mworira used quantitative research but the current study will use a cross-sectional research design and a multiple regression model only.

Houmani and Jhafari (2014) looked at the impact of the financial leverage ratio on dividend policy at Tehran Stock Exchange: A case study in the food industry. The study used descriptive statistics, correlation matrix and regression analysis on panel data. This study examined the relationship between dividend policy and financial leverage of 33 food companies listed in Tehran Stock Exchange during the period 2003 to 2010. The current study will sample 31 tea processing factories and was collect data for the period between 2014 and 2018

Ongeri (2014) conducted a study on the effect of profitability on dividend pay-out for companies listed at the Nairobi Securities Exchange. The study relied on secondary data which was analyzed using SPSS software version 20 and the results presented in tables. Olang, Akenga, and Mwangi (2015) studied the effect of liquidity on DPO for companies trading at the NSE. They used data from the period 2008 to 2012. Descriptive and inferential statistics were applied for data analysis. Their period of study was 2008 to 2012, but the current study will collect data for the period between 2014 and 2018.

Chebii, Kipchumba, and Wasike (2011) looked at the relationship between a firm's size and dividend payout ratios: companies listed at the Nairobi Stock Exchange (NSE). The data used in the research are secondary data collected during a time period of three years, between 2011 and 2015. The study follows a quantitative research method with a deductive approach. Their period of study was 2011 and 2015 but the current study will collect data for the period between 2014 and 2018. The study used a quantitative research method with a deductive approach but the current study will adopt a cross-sectional design.

Kibet, Jagongo, and Ndede (2016) looked at the effects of the size of the firm on dividend policy of firms listed at the Nairobi Securities Exchange, Kenya. Secondary data was obtained from the Nairobi Securities Exchange, Capital Market Authorities, and the Kenya Bureau of Statistics. The current study will collect secondary data from company websites and reports.

## **RESEARCH METHODOLOGY**

### **Research Design**

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions (Saunders, 2012). The plan is the overall scheme or program of the research (Robson, 2012). This study adopted a cross-sectional research design. Cross-sectional research

design often relies on secondary research such as reviewing available literature and/or data, or quantitative.

The population of interest in the study consisted of 19 tea processing factories. The sample size employed for the identification of target population was scientifically computed. This study used the Yamane’s (1967) formula for finite population to calculate the sample size:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{19}{1 + 19(0.05)^2} = 18$$

Where n represents the sample size, N represents the size of the population and e represents the sampling error at 95% level of confidence. The sample size was 18 tea processing firms. The study employed simple random sampling to select tea processing factories which was included in the study. The researcher wrote the names of the tea processing factories from 18 then selected randomly 18 tea processing factories. The nature of data for this research was secondary data. These data were collected from the published financial statements of the tea processing factories for a period of five years by the use of a data sheet. The published financial statements of these companies were obtained from the tea processing factories for the period 2014-2018.

## **RESULTS AND DISCUSSION**

### **Liquidity and financial performance**

The objectives of study was to determine the effect of liquidity on financial performance of among tea processing factories in Nandi County, Kenya. The study conducted descriptive analysis and the findings of the study were presented in Table 4.1.

The study found out Kapchorua tea co. Ltd had mean of .0040 with standard deviation of .0051, Kipchabo Tea Factory had mean value of .171 with standard deviation of .3756, Kaimosi Tea Estates Ltd had mean value of .143 with standard deviation of .2129, Tinderet Tea Estate had mean value of .003 with standard deviation .0013, Chemomi Tea Factory had mean value of .157 with standard deviation of .1992, Kapsumbeiwa Tea Factory had mean value of .328 with standard deviation of .3801, Kepchomo Tea Factory had mean value of .198 with standard deviation of .3354,

*Table 4.1 Descriptive Statistics on Liquidity*

	N	Minimum	Maximum	Mean	Std. Deviation
Kapchorua tea co. Ltd	5	.0	.0	.004	.0051
Kipchabo Tea Factory	5	.0	.8	.171	.3756
Kaimosi Tea Estates Ltd	5	.0	.5	.143	.2129
Tinderet Tea Estate	5	.0	.0	.003	.0013
Chemomi Tea Factory	5	.0	.5	.157	.1992
Kapsumbeiwa Tea Factory	5	.0	.9	.328	.3801
Kepchomo Tea Factory	5	.0	.8	.198	.3354
Kibwari tea factory	5	.0	.5	.126	.2200
Kipkoimet Tea Factory	5	.0	.0	.006	.0079

Savani Tea Factory	5	.0	.2	.044	.0787
Siret Tea Factory	5	.0	.9	.191	.3709
Emrok Tea Factory (epz) Ltd	5	.0	.8	.291	.3978
Kapsiwon Tea Factory Limited	5	.0	.9	.179	.3756
Kilibwoni Tea factory Ltd	5	.0	.0	.008	.0080
Lelgotet Tea Factory	5	.0	.2	.043	.0793
Camellia Kenya Limited	5	.0	.0	.004	.0042
Chebut/Kaptumo tea factory	5	.0	.3	.056	.1125
Chepkumia Tea factory co. Ltd	5	.0	.9	.319	.4084
Valid N (listwise)	5				

*Source: field data 2021*

Kibwari tea factory had mean value of .126 with standard deviation of .2200, Kipkoimet Tea Factory had mean value of .006 with standard deviation of .0079, Savani Tea Factory had mean value of .044 with standard deviation of .0787, Siret Tea Factory had mean value of .191 with standard deviation of .3709, Emrok Tea Factory (epz) Ltd had mean value of .291 with standard deviation of .3978, Kapsiwon Tea Factory Limited had mean value of .179 with standard deviation of .3756, Kilibwoni Tea factory Ltd had mean value of .008 with standard deviation of .00800, Lelgotet Tea Factory had mean value of .043 with standard deviation of .0794, Camellia Kenya Limited had mean of .004 with standard deviation of .0042, Chebut/Kaptumo tea factory had mean value of .056 with standard deviation of 1125 and Chepkumia Tea factory co. Ltd had mean value of .319 with standard deviation of .4084. The study established that Kapsumbeiwa Tea Factory had the highest mean value of .328 with standard deviation of .3801 while Tinderet Tea Estate had the lowest mean of .003 with standard deviation of .0013. Thus Kapsumbeiwa Tea Factory had the highest liquidity while Tinderet Tea Estate had the lowest liquidity. Higher liquidity enhances financial performance.

### **Firm size and earnings management determinants on financial performance**

The study examined the relationship between firm size and earnings management determinants on financial performance among tea processing factories in Nandi County, Kenya. The findings were presented in table 4.2.

The study revealed that Kapchorua tea co. Ltd had mean of 1239415.000 with standard deviation of 131657.5380, Kipchabo Tea Factory had mean value of 1019267.000 with standard deviation of 498149.8241, Kaimosi Tea Estates Ltd had mean value of 2444147.600 with standard deviation of 1327070.4917, Tinderet Tea Estate had mean value of 2450648.800 with standard deviation value of 548790.0393, Chemomi Tea Factory had mean value of 99024.800 with standard deviation of 284680.6385, Kapsumbeiwa Tea Factory had mean value of 10985.2674 with standard deviation of 138117.0928, Kepchomo Tea Factory had mean value of 1027222.800 with standard deviation

of 501629.5604, Kibwari tea factory had mean value of 2316521.800 with standard deviation of 1097023.2867, Kipkoimet Tea Factory had mean value of 2253762.800 with standard deviation of 794025.7635, Savani Tea Factory had mean value of 101936.200 with standard deviation of 12767.2582,

**Table 4.2 Descriptive Statistics on Firm size**

Kapchorua tea co. Ltd	5	1073989.0	1429341.0	1239415.000	131657.5380
Kipchabo Tea Factory	5	394879.0	1705503.0	1019267.000	498149.8240
Kaimosi Tea Estates Ltd	5	1103000.0	3984170.0	2444147.600	1327070.4917
Tinderet Tea Estate	5	1619907.0	3116803.0	2450648.800	548790.0393
Chemomi Tea Factory	5	80170.0	108758.0	99024.800	10985.2674
Kapsumbeiwa Tea Factory	5	1070939.0	1409301.0	1178377.200	138117.0928
Kepchomo Tea Factory	5	434998.0	1615513.0	1027222.800	501629.5604
Kibwari tea factory	5	1059080.0	3502006.0	2316521.800	1097023.2867
Kipkoimet Tea Factory	5	1089117.0	3216103.0	2253762.800	794025.7635
Savani Tea Factory	5	80307.0	112314.0	101936.200	12767.2582
Siret Tea Factory	5	1070980.0	1409301.0	1196979.200	132226.9633
Emrok Tea Factory (epz) Ltd	5	105553.0	1206503.0	785233.600	421053.1008
Kapsiwon Tea Factory Limited	5	1120008.0	11050100.0	4417355.200	3860140.1949
Kilibwoni Tea factory Ltd	5	1609117.0	3026903.0	2358512.800	561561.5227
Lelgotet Tea Factory	5	80407.0	1050409.0	472753.600	435205.2546
Camellia Kenya Limited	5	1002044.0	1400134.0	1200978.600	157255.6295
Chebut/Kaptumo tea factory	5	314402.0	1704103.0	908253.200	565496.1139
Chepkumia Tea factory co. Ltd	5	1203000.0	3844194.0	2396251.800	1034551.8322
Valid N (listwise)	5				

*Source: Field data 2020*

Siret Tea Factory had mean value of 1196979.200 with standard deviation of 132226.9633, Emrok Tea Factory (EPZ) Ltd had mean value of 785233.600 with standard deviation of 421053.1008, Kapsiwon Tea Factory Limited had mean value of 4417355.200 with standard deviation of 3860140.1949, Kilibwoni Tea factory Ltd had mean value of 2358512.800 with standard deviation of 561561.5227, Lelgotet Tea Factory had mean value of 472753.600 with standard deviation of 435205.2546, Camellia Kenya Limited had mean of 1200978.600 with standard deviation of 157255.6295, Chebut/Kaptumo tea factory had mean value of 908253.200 with standard deviation of 565496.1139 and Chepkumia Tea factory co. Ltd had mean value of 2396251.800 with standard deviation of 1034551.8322. The study established that Kapsiwon Tea Factory Limited had the highest mean value of 4417355.200 with standard deviation of 3860140.1949 while Chemomi Tea Factory had the lowest mean of 99024.800 with standard deviation of 10985.2674. Hence Kapsiwon Tea Factory Limited was the largest tea factory as measured by total sales while Chemomi Tea Factory was the smallest tea factory in terms of size as measured by total sales.

### **Financial performance**

The study conducted descriptive statistics on financial performance of tea factories in Nandi County. Financial performance was measured using return on assets (ROA). The findings were presented in table 4.5.

The study revealed that Kapchorua tea co. Ltd had mean of .043 with standard deviation of .0242, Kipchabo Tea Factory had mean value of .018 with standard deviation of .0112, Kaimosi Tea Estates Ltd had mean value of .014 with standard deviation of .0075, Tinderet Tea Estate had mean value of .027 with standard deviation value of .0140.

*Table 4.3 Descriptive Statistics on financial performance*

	N	Minimum	Maximum	Mean	Std. Deviation
Kapchorua tea co. Ltd	5	.0	.1	.043	.0242
Kipchabo Tea Factory	5	.0	.0	.018	.0112
Kaimosi Tea Estates Ltd	5	.0	.0	.013	.0075
Tinderet Tea Estate	5	.0	.0	.027	.0140
Chemomi Tea Factory	5	.0	.8	.347	.3272
Kapsumbeiwa Tea Factory	5	.0	.3	.115	.1095
Kepchomo Tea Factory	5	.0	.1	.035	.0181
Kibwari tea factory	5	.0	.0	.016	.0090
Kipkoimet Tea Factory	5	.0	.1	.037	.0152
Savani Tea Factory	5	.0	.7	.273	.2810
Siret Tea Factory	5	.1	.2	.122	.0540
Emrok Tea Factory (epz) Ltd	5	.0	.1	.036	.0164
Kapsiwon Tea Factory Limited	5	.0	.0	.021	.0088
Kilibwoni Tea factory Ltd	5	.0	.0	.024	.0150
Lelgotet Tea Factory	5	.0	.8	.345	.3741
Camellia Kenya Limited	5	.0	.2	.119	.0870
Chebut/Kaptumo tea factory	5	.0	.4	.143	.1294
Chepkumia Tea factory co. Ltd	5	.0	.0	.009	.0049
Valid N (listwise)	5				

*Source: Field 2020*

Chemomi Tea Factory had mean value of .347 with standard deviation of .3272, Kapsumbeiwa Tea Factory had mean value of .115 with standard deviation of .1095, Kepchomo Tea Factory had mean value of .035 with standard deviation of .0181, Kibwari tea factory had mean value of .016 with standard deviation of .0090, Kipkoimet Tea Factory had mean value of .037 with standard deviation of .0152, Savani Tea Factory had mean value of .273 with standard deviation of .2810, Siret Tea Factory had mean value of .122 with standard deviation of .0540, Emrok Tea Factory (EPZ) Ltd had mean value of .036 with standard deviation of .0164, Kapsiwon Tea Factory Limited had mean

value of .021 with standard deviation of .0088, Kilibwoni Tea factory Ltd had mean value of .024 with standard deviation of .0150, Lelgotet Tea Factory had mean value of .345 with standard deviation of .3741, Camellia Kenya Limited had mean of .119 with standard deviation of .0871, Chebut/Kaptumo tea factory had mean value of .143 with standard deviation of .1294 and Chepkumia Tea factory co. Ltd had mean value of .009 with standard deviation of .0049. The study established that Chemomi Tea Factory had the highest mean value of .347 with standard deviation of .3272 while Chepkumia Tea factory co. Ltd had the lowest mean of .009 with standard deviation of .0049. Hence Chemomi Tea Factory Limited was recorded the highest financial performance measured by RAO while Chepkumia Tea factory co. Ltd recorded the lowest financial as measured by ROA.

**Inferential Statistics**

The study conducted inferential analysis to find out the relationship between independent variables and dependent variable. The carried out correlation analysis and simple and multiple regressions analyses to establish the nature of association between variable.

**Correlational analysis**

The study conducted correlational analysis to establish the nature of relationship between independent variable and dependent variables of the study. The findings were presented in table 4. 4 below.

*Table 4.4 Correlations analysis*

		<b>Liquidity</b>	<b>financial performance</b>	
Liquidity	Pearson	1	-.584(**)	
	Correlation			
	Sig. (2-tailed)			.000
	N			90
Financial performance	Pearson	-.584(**)	1	
	Correlation			
	Sig. (2-tailed)			.000
	N			90

*Source: Field data.*

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

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

The study established that liquidity had strong but negative correlation with financial performance of tea factories in Nandi County.  $r = -.584(**)$ ,  $P = .000 < 0.01$ . Thus any changes in liquidity led to a significant decline in financial performance of tea factories in Nandi County. These findings disagreed with Kibet (2010) who concluded that there is a positive influence of liquidity on DPO. Other variables such as leverage, profitability, corporate tax, sales growth, industry, and EPS were also found to have a positive relationship with DPS.

## Regression analysis

The study carried simple and multiple regression analysis between independent variables (liquidity and financial performance of tea factories in Nandi County).

### Simple regression between liquidity and financial performance

The study conducted a simple regression analysis between liquidity and financial performance of tea factories in Nandi County. The findings were presented in table 4.5.

*Table 4.5 Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.584(a)	.342	.334	.0175651

*Source: Field data 2021*

a. Predictors: (Constant), liquidity

The findings in table 4.5 above indicated that R was =.584. This indicated that liquidity and financial performance of tea factories in Nandi County had a positive correlation. Further, the study established that the model had an R square of .342, which was adjusted to .334. Hence, changes in liquidity led to 34.2 % changes in financial performance of tea factories in Nandi County. These findings agreed with Waswa, Ndede, and Jagongo (2014) who found out that there was a positive relationship between dividend payout and liquidity and profitability.

*Table 4.6 ANOVA (b)*

Mode		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.014	1	.014	45.658	.000(a)
	Residual	.027	88	.000		
	Total	.041	89			

*Source: filed data 2021*

a Predictors: (Constant), liquidity

b Dependent Variable: financial performance

The findings of the study indicated an F-test value of 45.658,  $P=.000 < 0.05$ . This meant the overall regression model was fit for the study. This finding showed that liquidity had a significant effect on financial performance of tea factories in Nandi County.

*Table 4.7 Coefficients (a)*

Mode		Unstandardized		Standardized	T	Sig.
I		Coefficients		Coefficients		
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	.112	.003		39.796	.000
	Liquidity	-.108	.016	-.584	-6.757	.000

*Source: Field Data.2021*

a Dependent Variable: financial performance

The findings in table 4.7 revealed that liquidity had a negative and significant effect on financial performance of tea factories in Nandi County.  $B=-.108$ ,  $t=-6.757$ ,  $P=.000 < 0.05$ . Taking other

factors to be constant at zero, liquidity contributed to 11.2 % in financial performance. Further, the study noted change in liquidity led to 10.8% decline in financial performance of tea factories in Nandi County. These findings disagreed with (Kiboi, 2015), who found out that liquidity had a positive and significant association with DPS. However, he agreed that liquidity had a negative but insignificant effect on DPS

$$Y = .112 + .108X + \epsilon$$

### Multiple regression between moderating variable, independent variables and dependent variables

The study conducted multiple regression analysis to find out the effects of firm size on the relation between independent variables and financial performance of tea factories in Nandi County. Results of the study were presented below.

*Table 4.8 Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828(a)	.686	.671	.0123482

*Source: field data 2021*

a. Predictors: (Constant), firm size, liquidity

The findings in table 4.8 above indicated R was .828. This indicated that firm size independent variables and financial performance of tea factories in Nandi County had a positive correlation. Further, the study established that the model had an R square of .686 which was adjusted to .671. These findings meant that changes in firm size led to 68.6% variation in the relationship between independent variables and financial performance of tea factories in Nandi County.

*Table 4.9 ANOVA (b)*

Mode		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.028	4	.007	46.363	.000(a)
	Residual	.013	85	.000		
	Total	.041	89			

*Source: Field data 2021*

a. Predictors: (Constant), firm size, liquidity

b. Dependent Variable: financial performance

The findings of the study indicated an F-test value of 46.363,  $P = .000 < 0.05$ . This meant the overall regression model was fit for the study. This finding showed that firm size had a significant effect on the relationship between independent variables and financial performance of tea factories in Nandi County. Thus change in size of the firm led to a significant change in the relationship between independent variables and dependent variable.

*Table 4.10 Coefficients (a)*

Mode	I	Unstandardized		Standardized		
		Coefficients		T	Sig.	
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	.308	.025		12.338	.000
	Liquidity	-.011	.026	-.058	-.417	.678
	firm size	4.66	.000	.586	3.540	.001

*Source: field data 2021*

a. Dependent Variable: financial performance

According to the findings in table 4.10, when moderating variables, independent variables (liquidity) are held constant, financial performance of tea factories in Nandi County would be 30.8 %. The study further revealed that when the size of the firm was incorporated liquidity had a negative but insignificant effect on financial performance of tea factories in Nandi county  $B = -.011$ ,  $P = .678 > 0.05$ . Incorporating firm size in the relationship between liquidity and financial performance, led to a small decline in profitability.

Further the study found out firm size had a significant positive effect on financial performance of tea factories in Nandi county  $B = 4.66$ ,  $p = .001 < 0.05$ . Thus, change in firm size led to a significant change on financial performance.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions of the Study**

#### **Liquidity on financial performance**

The study concluded that Kapsumbeiwa Tea Factory had the highest mean. Thus Kapsumbeiwa Tea Factory had the highest liquidity leading higher financial performance. Higher liquidity provides enough funds for investment in new and more profitable which enhances financial performance. Further, the study concluded that liquidity had strong but negative correlation with financial performance of tea factories in Nandi County. Thus any changes in liquidity led to a significant decline in financial performance of tea factories in Nandi County. Additionally, the study concluded that that liquidity had a negative but significant effect on financial performance of tea factories in Nandi County. Thus a unit change in liquidity led to decline in financial performance of tea factories significantly. Hence, the null hypothesis was rejected.

#### **Firm size and earnings management determinants on dividend payments**

The study concluded that Kapsiwon Tea Factory Limited had the highest mean. Hence Kapsiwon Tea Factory Limited was the largest tea factory as measured by total sales. More sales led to increased financial performance for Kapsiwon Tea Factory Limited. Further the study concluded that firm size had a significant positive effect on financial performance of tea factories in Nandi County. Thus, change in firm size led to a significant increase in financial performance. The null hypothesis was rejected.

### **Recommendations for the Study**

#### **Liquidity on financial performance**

Tinderet Tea Estate had the lowest mean. Thus it had the lowest liquidity leading lower financial performance. The study recommended that Tinderet Tea Estate to look for means of getting cheap finances for reinvestment so that it increase its financial performance. Further the study

recommended that tea factories in Nandi County should only maintain the level of liquidity they need and avoid excess liquidity that is idle. This would reduce the negative effective of too much idle liquidity on financial performance.

Additionally, the study recommended that tea factories in Nandi County only borrow whenever there is an investment opportunity. Further, the study recommended that borrowing of funds for investment should be obtained from cheap sources. This would enhance their financial performance. Additionally, they should avoid unnecessary borrowing as it will reduce their financial performance.

### **Firm size and earnings management determinants on dividend payments**

Chemomi Tea Factory had the lowest mean. Chemomi Tea Factory was the smallest tea factory in terms of size as measured by total sales. The study recommended that Chemomi Tea Factory should look for more new markets both locally and internationally. This would increase its sales and make more profit. Further the study recommended that tea factories in Nandi to increase firm size through making sales as it would significantly and positively affect their financial performance

### **5.3 Suggestions for Further Research**

The study suggested that more studies to be done on the earnings management determinants and financial performance of listed tea factories in, Kenya.

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