

# Moderating Effect of Ownership Structure on the Relationship between Working Capital Management Decisions and Financial Performance of Tea Firms in Kenya

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**Abstract** Kenyan tea industry is struggling to thrive. Multinationals and KTDA managed tea firms in Kenya have been performing poorly in the recent past where audited financial statements and reports revealed a warning signal on its financial performance. Specific objectives of the study was to investigate the moderating effect of ownership structure on the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, WCM policies and financial performance of tea firms in Kenya. The study concludes that the ownership structure moderates the relationship between working capital management decisions and financial performance of tea firms in Kenya.

**Keywords:** working capital, accounts receivable, accounts payables and inventory

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## 1. Introduction

Numerous research studies regarding WCM have been conducted in many economies around the globe; however, the understanding of WCM decisions in the context of an organization has not been adequately documented and understood. Several management gurus and research scholars have largely concentrated on establishing complicated/sophisticated financial models for instance [1,2,3], however, directors/managers require simple and easy to use models [4]. On contrary, researchers and scholars find these techniques used in making financial decision difficult to employ in actual/real application because of their assumptions that are not realistic regarding the obliviousness of ambiguity in operations of business and their intricateness in demonstrating to decision makers [5,43]. In such events, it is argued that the failure of research studies on WCM to show or reflect the features and challenges of contemporary organizational settings has result into a lack of understanding and therefore necessitate the need for a conceptual framework explaining current WCM decisions. While the remarkable performance of the tea sector in Kenya has been widely documented, the WCM decisions and its contribution to the sector's financial performance remain largely unexplored [6]. Suffice it to note that the exploration of

this study's research problem should help shed light on these dilemmas particularly for the Kenyan tea industry and its financial performance. This study sought to fill the gap in the literature by assessing the effect of WCM decisions variables on financial performance of tea firms in Kenya.

In as far as the statement of the problem is concerned; firstly, Kenyan tea industry is struggling to thrive. Multinationals and KTDA managed tea firms in Kenya have been performing poorly in the recent past where audited financial statements and reports by TBK and KNBS of 2014 to 2019 revealed a warning signal on its financial performance. The most affected region was West of Rift (Kericho, Bomet and Nandi Counties). This drop in earnings has been focused mainly on WCM decisions adopted by tea firms in Kenya. Corporate managers and finance practitioners still lack adequate guidance on how to attain sufficient threshold in regard to proper WCM decisions, thus the need for this study. Secondly, several studies have been carried out internationally, regionally and locally on the effect of WCM decisions on financial performance of different firms. However, it is instructive to note there is still vagueness pertaining the relevant variables that may be used as proxies for WCM. These studies produced conflicting results and do not give clear guidance or distinct direction on the association between WCM decisions and firm's financial performance, thus the need for the current study. Thirdly, currently available

empirical literatures on WCM decisions were done in other geographic jurisdictions other than Kenya, especially in developed economies such as the USA and Europe. However, since Kenya differs from developed and other developing countries regarding capital markets, economy and infrastructural development, this limited evidence in the context of tea industry in Kenya and especially in Kericho, Bomet & Nandi Counties, calls for a research to be undertaken, thus necessitating this study. Therefore, this study sought to bridge these gaps in the literature. Lastly, there is relatively little evidence available on the moderating effect of ownership structure on the association between WCM decisions and financial performance, and in particular, tea industry in Kenya. Therefore, this study sought to bridge these gaps in the literature.

### 1.1. Research Objectives

The general objective of this study is to investigate the effect WCM decisions on financial performance of tea firms in Kenya.

The specific objectives are:

- To investigate the moderating effect of ownership structure on the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, WCM policies and financial performance of tea firms in Kenya.

Pertaining the scope of the study, this study covered all multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties in Kenya for the period 2014-2019, and comprise of 23 multinationals and 17 KTDA managed tea firms.

## 2. Literature Review

### 2.1. Theoretical Framework

The theory upon which this study is anchored is explained as under.

#### 2.1.1. Resource-Based View Theory

The applicability of resource-based theory to WCM is that it is used in this context to include the cognitive ability of individual managers of businesses as to ensure effective management of the short-term asset of the business [12]. This therefore connotes that managers have individual-specific resources that facilitates and ensures the recognition of new opportunities, effective assembling of resources, as well as the psyche of making payments, and recovering of receivables as and when due to ensure effective management of WC and ultimately the firm's profitability. Based on arguments of the resource-based theory, therefore, this study sought to establish whether the moderating effect of ownership structure had any effect on the relationship between WCM decisions and financial performance of tea firms in Kenya.

### 2.2. Empirical Literature Review

Regarding the empirical literature review, [13] explored the influence and all the effect of the accounts receivables

collection period on the financial performance of companies by employing data from an extensive sample of companies engaged in manufacturing Italy. The findings of this research study revealed that accounts receivables collection period had a significant positive association with financial performance. [14] also investigated the association between WCM decisions and financial performance of listed firms engage in manufacturing in Ghana. The research utilized secondary data sourced from all the 14 manufacturing firms listed in Ghana for the time period of 2004 to 2012. The study findings established a significant negative association between financial performance and accounts receivable collection period. Other scholars with similar outcome of negative association between financial performance and ARCP include [2,15,20]. WCM rule dictates that companies should strive to lag their payments to creditors as much as possible, taking care not to spoil their business association. Through this, [21] in the study on the influence of WCM components on corporate financial performance, a survey on listed firms in Kenya showed that APPP has a positive association with financial performance. The positive association revealed that an increase in the accounts payable payment period by 1 day is strongly associated with an increase in financial performance. Although studies by [7,18,22,23,24,25] show positive association between APPP and financial performance other more research by [4,5,17,20,21,26,27,28] suggest a negative association between APPP and the firm financial performance. [12] failed to provide the association that exists between APPP and financial performance. Indeed, inventory management is one of the fundamental variables in WCM as it is one of the principal pillars of current assets. A research study by [27,46] evaluated the efficiency of WCM on corporate firms in Iran on automobile industry for the time period 2001-2014. The outcome showed that inventory management had a positive association with WC. In addition, the research study revealed that the relationship between WC and raw material purchase was positive. In addition, [7] also investigated the effect of ICP on financial performance of tea firms in the County of Meru for the time period of 5 years from 2012 to 2016. The study findings revealed that ICP negatively affected the financial performance. Although most empirical research suggest a negative relation between inventory turnover in days and financial performance [1,2,10,34], find contradictory findings on the association between inventory turnover in days and financial performance. [6,12] suggest a positive association between inventory turnover in days and financial performance. [33] investigated the effect of liquidity on financial performance of selected corporate firms. The research study utilized secondary data from the selected corporate firms yearly audited reports and financial statements. The research study revealed that there exist a significant positive association between current ratio and financial performance; however, there was no clear-cut significant relationship between Acid-test ratio and financial performance. [28] investigated the association between liquidity and financial performance based on a sample of 30 manufacturing companies listed in the Nigeria securities exchange for the period 2011 to 2014. The research study revealed that liquid ratio and

current ratio were positively correlated with financial performance whereas the cash conversion period was negatively correlated with financial performance of manufacturing companies in Nigeria. Despite many authors postulating a negative association between CCP and financial performance, [8,10,26,28,32,35,36,37,38] there are studies which indicate a positive association between CCP and financial performance [6,31,42]. The optimal level of WC is determined to a large extent by the policy adopted for management of current liabilities and current assets. The aggressive policy is considered to be more risky because of the frequent need to refinance to support permanent current assets as well as fluctuating current assets. [18,39,48] observed that if a firm relied on overdraft, it will be vulnerable to a rapid withdrawal of the facility and if stock and cash are reduced to pay back the overdraft the firm may experience severe disruption, loss of sales and output, and additional costs because of failure to maintain the minimum required WC to sustain optimum profitability.

Previous studies have shown that a firm can adopt an aggressive WCM policy with a low degree of current assets as a ratio of total assets or it may also be employed for financing decisions of the companies in the form of high degree of current liabilities as percentage of total liabilities. According to [38,49], excessive levels of current assets may have a negative effect on the firm's profitability whereas a low level of current assets may lead to a lower level of liquidity and stock-outs resulting in difficulties in maintaining smooth operations. In their study, [11,45] examined the association between the aggressive and conservative WC policies for seventeen industrial groups and a large sample of 264 listed public limited companies at Karachi securities exchange for a time of period of 1997-2002. The study found out a significant difference among their WC investment and financing policies across different industries. The study also found out a negative association among the profitability measures of companies and extent of aggressiveness of WC investment and financing policies.

### 3. Methodology

#### 3.1. Sample Construction

The study employed correlational research design. This is a type of research design in which the researcher attempts to identify relationships to make predictions [14]. The main objective of a correlational research design is the discovery of relationships among different variables [4]. This research design was used to identify, describe, show relationships and analyze variables of WCM that affect financial performance among the tea firms in Kenya.

The target population for this study was a census of all multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties of Kenya for the period for the period 2014 to 2019.

This study adopted a census approach where all the 23 tea factories under the multinationals tea companies and 17 tea factories under KTDA in Kericho, Bomet and Nandi Counties in Kenya were taken.

This research study adopted secondary data which were obtained from the annual audited financial statements from all the 40 tea factories in Kericho, Bomet and Nandi Counties in Kenya.

The study utilized secondary data collected from documents, records and reports of others. The data is panel data which consisted of time series and cross-sections. The cross sectional data consisted of all multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties in Kenya, while the time series were the years 2014-2019.

The general empirical model is:

$$ROA_{it} = \alpha + \beta_1 (ARCP)_{it} + \beta_2 (APPP)_{it} + \beta_3 (ICP)_{it} + \beta_4 (CCP)_{it} + \beta_5 (WCFP)_{it} + \beta_6 (WCIP)_{it} + \varepsilon_{it} \quad (1)$$

The model with moderating effect is:

The study operationalised ownership structure using the following codes:

**1** = the company is a Multinational tea firm in Kericho, Bomet and Nandi Counties;

**0** = the company is a KTDA managed tea firm in Kericho, Bomet and Nandi Counties.

The empirical model 2 was formulated as under:

$$ROA_{it} = \alpha + \beta_1 (ARCP)_{it} + \beta_2 (APPP)_{it} + \beta_3 (ICP)_{it} + \beta_4 (CCP)_{it} + \beta_5 (WCFP)_{it} + \beta_6 (WCIP)_{it} + \beta_7 (ARCP * M) + \beta_8 (APPP * M) + \beta_9 (ICP * M) + \beta_{10} (CCP * M) + \beta_{11} (WCFP * M) + \beta_{12} (WCIP * M) + \varepsilon_{it} \quad (2)$$

Where:

**ROA** = Return on Assets, **ARCP** = Accounts Receivables Collection Period, **APPP** = Accounts Payables Payment Period, **ICP** = Inventory Conversion Period, **CCP** = Cash Conversion Period, **WCFP** = Working Capital Financing Policy, **WCIP** = Working Capital Investing Policy,  **$\alpha$**  = Constant term,  **$\beta_1$**  to  **$\beta_6$**  are coefficients of the explanatory variables,  **$\varepsilon_{it}$**  = Error term where *i* is cross sectional and *t* time identifier, **i** = 1...40 and **t** = 2014...2019, **M** = Ownership Structure (**1** = Multinational & **0** = KTDA managed).

The data was analyzed using descriptive statistics, correlation analysis, and panel multiple regression analysis. The panel methodology was aided by EVIEW software. An excel program was used to compute the relevant ratios for each of the companies across time. Feasible generalized least square estimation was performed after accounting for various violations of classical linear regression assumptions.

The following diagnostic tests were conducted: multicollinearity, autocorrelation, heteroskedasticity and test for Normality of residuals, Panel Unit Root Test and Test for Fixed or Random Effects.

### 4. Results

#### 4.1. Descriptive Statistics

**Table 1. Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
Returns on Assets	240	0.0810	0.0286	0.0085	0.1798
Accounts Receivables Collection Period	240	182.4715	47.7071	41.0259	472.4709
Accounts Payables Payment Period	240	79.9924	31.5791	19.2293	230.4068
Inventory Conversion Period	240	78.1386	108.3363	14.9669	773.7299
Cash Conversion Period	240	180.6177	116.7593	16.8297	862.9320
WC Financing Policy	240	0.1449	0.0461	0.0188	0.4117
WC Investing Policy	240	0.4633	0.1058	0.0342	0.7877
Ownership Structure	240	0.5750	0.4954	0.0000	1.0000

The results presented in Table 1 show the minimum return on assets of the multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties in Kenya for the period between 2014 and 2019 was 0.0085 with a maximum of 0.1798. The mean score of the return on assets was 0.0810. This implied most multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties had ROA of 0.0810 between 2014 and 2019. The study found the minimum accounts receivables collection period for the firms between 2014 and 2019 was 41.0259 days with a maximum of 472.4709 days. The average accounts receivables collection period in the same period of 2014 to 2019 was 182.4715 days. This signified that most of the firms had an accounts receivables collection period of 182.4715 days between 2014 and 2019. The minimum accounts payables payment period for the firms between 2014 and 2019 was 19.2293 days with a maximum of 230.4068 days. The average accounts payables payment period was 79.9924 days. This meant that most of the firms had an accounts payables payment period of 79.9924 days between 2014 and 2019. The study found the minimum inventory conversion period of the firms between 2014 and 2019 was 14.9669 days with a maximum of 773.7299 days. The average inventory conversion period was 78.1386 days. This implied most firms had an inventory conversion period of 78.1386 days between 2014 and 2019. The study found the average cash conversion period of the firms has been 180.6177 days for the period between 2014 and 2019. The minimum average cash conversion period from 2014 to 2019 was 16.8297days with a maximum of 862.9320 days. This implied that most of the firms took 180.6177 days to convert a shilling invested in current assets into cash. The study showed that the working capital financing had an average mean score of 0.1449. The minimum and maximum working capital financing between 2014 and 2019 was 0.0188 and 0.4117, respectively. This implied that most of the firms had working capital financing of 0.1449 between 2014 and 2019. The study found the

average working capital investing of the firms between 2014 and 2019 was 0.4633. The minimum and maximum working capital investing were 0.0342 and 0.7877, respectively. This implied most multinationals and KTDA managed tea firms in Kericho, Bomet and Nandi Counties between 2014 and 2019 had a 0.4633 working capital investing Policy. Finally, the mean score of ownership structure was 0.5750 with a minimum of 0 and a maximum of 1. The results indicated that multinationals managed tea firms exceeded the KTDA managed firms in the region of Kericho, Bomet and Nandi Counties by 0.0750 units.

## 4.2. Correlation Analysis

The results presented in Table 2 show that the accounts receivables collection period is negatively associated with return on asset ( $r = -0.0061$ ). The study also found that the accounts payables payment period is negatively correlated with return on assets ( $r = -0.0165$ ). The study results further illustrated that the inventory conversion period is negatively associated with return on assets ( $r = -0.0426$ ). The study found that the cash conversion period is negatively associated with the return on assets ( $r = -0.0312$ ). It was found that working capital financing Policy is positively associated to return on assets ( $r = 0.2872$ ). The study further depicted that working capital Policy is positively correlated with return on assets ( $r = 0.2000$ ).

## 4.3. Model Regression Analysis

### 4.3.1. Panel Regression Analysis without Moderation

The model without moderation:

$$\begin{aligned} \text{ROA} = & 0.0457 - 0.1299\text{ARCP} \\ & -0.0843\text{APPP} - 0.0623\text{ICP} - 0.1107\text{CCP} \\ & +0.1589\text{WCIP} + 0.0291\text{WCFPb} \end{aligned}$$

**Table 2. Correlation Analysis**

Variable	ROA	ARCP	APPP	ICP	CCP	WCFP	WCIP
ROA	1.0000						
ARCP	-0.0061	1.0000					
APPP	-0.0165	0.1277	1.0000				
ICP	-0.0426	0.0428	0.3674	1.0000			
CCP	-0.0312	0.6304	-0.1742	0.5567	1.0000		
WCFP	0.2872	0.1245	0.1293	-0.0147	0.0075	1.0000	
WCIP	0.2000	0.0223	-0.0552	-0.0586	0.0258	0.4428	1.0000

Table 3. Panel Regression Analysis

Return on Assets	Coef.	Robust Std. Err.	z	P>z
Accounts Receivables Collection Period	-0.1299	0.0541	2.4000	0.0160
Accounts Payables Payment Period	-0.0843	0.0315	2.6800	0.0070
Inventory Conversion Period	-0.0623	0.0264	2.3600	0.0180
Cash Conversion Period	-0.1107	0.0276	4.0109	0.0030
WC Financing Policy	0.1589	0.0295	5.3800	0.0000
WC Investing Policy	0.0291	0.0055	5.3000	0.0000
_cons	0.0457	0.0408	1.1200	0.2630
R squared = 0.6529				

The results presented in Table 3 shows that accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing Policy and working capital investing Policy explain 65.29% of the variations in the financial performance (return on assets) of the tea firms in Kenya.

The study illustrated that the accounts receivables collection period is negatively and significantly related to return on assets ( $\beta = -0.1299$ ,  $p = 0.0160$ ). This was supported by a calculated t-statistic of 2.4000 that is larger than the critical t-statistic of 1.96. This implied an increase in the accounts receivables collection period by one unit would lead to a rise in the return on assets by 0.1299 units, while other factors are held constant.

The study found that the accounts payables payment period is negatively and significantly related to return on assets ( $\beta = -0.0843$ ,  $p = 0.0070$ ). This was supported by a calculated t-statistic of 2.6800 that is larger than the critical t-statistic of 1.96. This implied an increase in the accounts payable period by one unit would lead to a decrease in the return on assets by 0.0843 units, while other factors are held unchanged.

The study noted that the inventory conversion period is negatively and significantly related to return on assets ( $\beta = -0.0623$ ,  $p = 0.0180$ ). This was supported by a calculated t-statistic of 2.3600 that is larger than the critical t-statistic of 1.96. This signified an increase in an inventory conversion period by one unit would lead to a rise in the return on assets by 0.0623units, while other factors are held constant.

It was found that the cash conversion period is negatively and significantly related to return on assets ( $\beta = -0.1107$ ,  $p = 0.0030$ ). This was supported by a calculated t-statistic of 4.0109 that is larger than the

critical t-statistic of 1.96. This showed an increase in the cash conversion period by one unit would lead to a decrease in the return on assets by 0.1107 units, while other factors are held constant.

The study showed that working capital financing policy is positively and significantly related to return on assets ( $\beta = 0.1589$ ,  $p = 0.0000$ ). This was supported by a calculated t-statistic of 5.3800 that is larger than the critical t-statistic of 1.96. This implied an increase in working capital financing policy would lead to a rise in the return on assets by 0.1589 units while other factors are held constant. The working capital financing policy deals with the sources and the amount of working capital that a company should maintain.

Further, the study found that working capital investing policy is positively and significantly related to return on assets ( $\beta = 0.0291$ ,  $p = 0.0000$ ). This was supported by a calculated t-statistic of 5.3000 that is larger than the critical t-statistic of 1.96. The results implied that when the working capital investment policy improves by one unit, the return on assets will increase by 0.0291 units when other factors are kept constant. This implies the higher the current assets, the higher the return on assets because the working capital investing policy is a function of current assets over total assets. The working capital policy of a company refers to the level of investment in current assets for attaining their targeted sales.

#### 4.3.2. Panel Regression Analysis with Moderation

The study sought to examine the moderating effect of ownership structure on the relationship between accounts receivables collection period, account payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy and financial performance of tea firms in Kenya.

Table 4. Moderation Effect of Ownership Structure

Returns on Assets	Coef.	Robust Std. Err.	z	P>z
A/C Receivables Collection Period	-0.2034	0.0273	2.5000	0.0070
A/C Payables Payment Period	-0.1957	0.0831	2.4900	0.0030
Inventory Conversion Period	-0.2192	0.0930	2.2800	0.0100
Cash Conversion Period	-0.1877	0.0323	4.0402	0.0050
WC Financing Policy	0.10845	0.0529	5.0900	0.0030
WC Investing Policy	0.2738	0.0194	5.7100	0.0110
A/C Receivables Collection Period*Ownership Structure	-0.1994	0.0588	3.3900	0.0010
A/C Payables Payment Period*Ownership Structure	-0.1494	0.0363	4.1100	0.0000
Inventory Conversion Period*Ownership Structure	-0.0838	0.0311	2.7000	0.0070
Cash Conversion Period *Ownership Structure	-0.1517	0.0535	2.8400	0.0050
WC Financing Policy*Ownership Structure	0.1270	0.0384	3.3073	0.0017
WC Investing Policy*Ownership Structure	0.0374	0.0141	2.6500	0.0080
_cons	0.0714	0.0020	35.7900	0.0000
R squared = 0.7708				

The results in the Table 4 show the interaction variables between the moderating variable and the independent variables when they are included in the model. First, the study sought to examine the moderating effect of ownership structure on the relationship between accounts receivables collection period and financial performance of tea firms in Kenya. The results also indicate the interaction between accounts receivables collection period and ownership structure is negatively and significantly related to return on assets ( $\beta = -0.1994$ ,  $p = 0.0010$ ). This was supported by a calculated t-statistic of 3.3900 that is larger than the critical t-statistic of 1.96.

Similarly, the study sought to examine the moderating effect of ownership structure on the relationship between accounts payables payment period and financial performance of tea firms in Kenya. The interaction between accounts payables payment period and ownership structure is negatively and significantly related to return on assets ( $\beta = -0.1494$ ,  $p = 0.0000$ ). This was supported by a calculated t-statistic of 4.1100 that is larger than the critical t-statistic of 1.96.

In addition, the study sought to examine the moderating effect of ownership structure on the relationship between inventory conversion period and financial performance of tea firms in Kenya. The interaction between inventory conversion period and ownership structure is negatively and significantly related to return on assets ( $\beta = -0.0838$ ,  $p = 0.0070$ ). This was supported by a calculated t-statistic of 2.7000 that is larger than the critical t-statistic of 1.96.

Further, the study sought to examine the moderating effect of ownership structure on the relationship between cash conversion period and financial performance of tea firms in Kenya. The study found that the interaction between the cash conversion period and ownership structure is negatively and significantly related to return on assets ( $\beta = -0.1517$ ,  $p = 0.0050$ ). This was supported by a calculated t-statistic of 2.8400 that is larger than the critical t-statistic of 1.96.

Besides, the study sought to examine the moderating effect of ownership structure on the relationship between working capital management policies and financial performance of tea firms in Kenya. The interaction between working capital financing policy and ownership structure is positively and significantly related to return on assets ( $\beta = 0.1270$ ,  $p = 0.0017$ ). This was supported by a calculated t-statistic of 3.3073 that is larger than the critical t-statistic of 1.96.

Finally, the interaction between working capital investing policy and ownership structure is positively and significantly related to return on assets ( $\beta = 0.0374$ ,  $p = 0.0080$ ). This was supported by a calculated t-statistic of 2.6500 that is larger than the critical t-statistic of 1.96. The results concur with the findings of [40], who reported that domestic banks' performance is superior compared to their foreign counterparts in developed countries. [4] also support the above argument in that in developing countries, the performances of foreign banks are better compared with the other types of ownership in developing countries.

Results from Table 4 shows that  $R^2$  before moderation was 65.69%, but after moderation, the  $R^2$  increased significantly to 78.08%. This implied ownership structure moderates the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy

and financial performance of tea firms in Kenya. The results implied that accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy works better within the multinational tea firm compared to KTDA managed tea firms. This was because the coding of the ownership structure was 1 multinational tea firm while 0 to be KTDA managed tea firms.

When the interaction variables between the moderating variable and the independent variables are included in the model, the resulting equation becomes (model 2):

$$\begin{aligned} ROA_{it} = & 0.0043 - 0.2034(ARCP) \\ & - 0.1957(APPP) - 0.2192(ICP) - 0.1877(CCP) \\ & + 0.10845(WCFP) + 0.2738(WCIP) \\ & - 0.1994(ARCP * M) - 0.1494(APPP * M) \\ & - 0.0838(ICP * M) - 0.0732(CCP * M) \\ & + 0.1270(WCFP * M) + 0.0374(WCIP * M) \end{aligned}$$

In conclusion, the coefficients of ARCP, APPP, ICP, CCP, WCFP, WCIP, ARCP \* M, APPP \* M, ICP \* M, CCP \* M, WCFP\*M and WCIP \* M in Model 2 are all significant as they have T statistics with p-values of 0.0070, 0.0030, 0.0100, 0.0050, 0.0030, 0.0110, 0.0010, 0.0000, 0.0070, 0.0050, 0.0017, 0.0080 and 0.0000 which are all less than 0.05. Since the coefficients of M is all significant joint interaction with ARCP, APPP, ICP, CCP, WCFP and WCIP, this implies that the variable ownership structure has moderating effect on the joint association between independent variables, that is; accounts receivables collection period, accounts payables payment period, inventory conversion period, cash conversion period, WC Financing Policy, WC investing Policy and the dependent variable, the financial performance of the tea firms in Kenya.

#### 4.4. Hypotheses Testing

There is no statistically significant moderating effect of ownership structure on the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital levels and financial performance of tea firms in Kenya. The hypothesis was tested by using panel regression and determined using the p-value and R-squared ( $R^2$ ). The acceptance/rejection criterion was that if the p-value is less than 0.05, we reject the null hypothesis ( $H_0$ ), but if it is more than 0.05, the  $H_0$  is not rejected. Based on the results presented in Table 4, the p values after interaction of all variables (accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy) remained less than 0.05. Moreover, the coefficient of determination ( $R^2$ ) increased from was 65.69% to 78.08% after the ownership structure interacted with accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy. The null hypothesis was thus rejected. Therefore, there is a statistically significant moderating

effect of ownership structure on the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy and financial performance of tea firms in Kenya.

## 5. Discussion of the Conclusions

The study showed that the coefficient of determination ( $R^2$ ) before moderation was 65.69%, but after moderation, the  $R^2$  increased significantly to 78.08%. The results implied that accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy works better within the multinational tea firm compared to KTDA managed tea firms. The results concur with the findings of [41,47], who reported that domestic banks' performance is superior compared to their foreign counterparts in developed countries. [37,50] also support the above argument in that in developing countries, the performances of foreign banks are better compared with the other types of ownership in developing countries.

### 5.1. Summary of Findings

The objective of the study was to investigate the moderating effect of ownership structure on the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital levels and financial performance of tea firms in Kenya. The study showed that the coefficient of determination ( $R^2$ ) before moderation was 65.69%, but after moderation, the  $R^2$  increased significantly to 78.08%. Thus, ownership structure moderates the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy and financial performance of tea firms in Kenya.

### 5.2. Conclusions

The study concludes that ownership structure moderates the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy and financial performance of tea firms in Kenya. The coefficient of determination ( $R^2$ ) before moderation was 65.69%, but after moderation, the  $R^2$  increased significantly to 78.08%. The ownership structure includes whether the company is Multinational or is managed by KTDA.

### 5.3. Recommendations

It is recommended that Kenya Tea Development Agency Holdings (KTDA) need to be more innovative and look at the strategies utilized by the multinational firms to enhance their performance. The organizational structure

moderates the relationship between accounts receivables collection period, accounts payment period, inventory conversion period, cash conversion period, working capital financing policy, working capital investing policy and financial performance of tea firms in Kenya. Those multinational firms were more productive than KTDA firms because the coding was that 1 denotes a multinational firm; 0 otherwise.

### 5.4. Suggestions for Further Studies

The study looked at the effect of working capital management decisions on the financial performance of tea firms in Kenya. The study covered multinationals and KTDA managed tea firms in the western part of Kenya (Kericho, Bomet and Nandi Counties). Thus, it is suggested that another study can be conducted on other regions that practice tea farming in Kenya, such as Mt. Kenya, Aberdares, Nyambene hills, Kisii Highlands and Cherangani Hills. Besides, the study can use other variables to determine performance, such as leadership styles, leverage level, employee competency and government policy. This will be fundamental in making the comparison and developing a more comprehensive conclusion.

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