



**LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF TEA EXPORTING COMPANIES IN MOMBASA,  
KENYA**

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**LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF TEA EXPORTING COMPANIES IN MOMBASA, KENYA**

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**ABSTRACT**

*This study investigated the effect of liquidity management on financial performance of tea exporting firms in Mombasa County, Kenya. The study adopted cross-sectional descriptive survey research design. According to Tea Board of Kenya (2021) in Mombasa there are 23 licensed large scale tea exporting firms. Thus the current study targeted all 23 large scale tea exporting licensed by Tea Board of Kenya and operating within Mombasa Island. The unit of analysis was finance executives of all 23 large scale tea exporting firms which are 23. The study utilized census technique since the target population is small. The study utilized primary data collected by use of structured closed-ended questionnaires. Secondary data was used from financial reports of the target tea export firms. Pilot test was conducted on data collection tools to establish validity and reliability. On data analysis, descriptive statistics and inferential statistics were employed to analyze collected data. Statistical Package for Social Science (SPSS) was the data analysis tool. Analyzed data was presented by use of frequency and descriptive tables. The study findings revealed that accounts receivable period, payable deferral period, inventory conversion period and cash flow planning have significant effect on financial performance. The tea export firms' receivables collection policies are set to assist in reduction of bad debts and the length of credit period to customers has an influence on sales. The firms have receivables management policies to regulate the credit allowed and recovery of debtors. The companies monitor accounts receivable to ensure timely recovery of debts. The study concluded that the companies in tea export review their credit policies to ensure optimal credit is maintained at all times. Tea export firms have credit policies which serve to avoid liquidity risks. The tea export firms utilize credit facilities to adequately finance its operations and they delay accounts payables till the due deadline. So as to utilize the funds in other profitable tasks. The study recommends that the tea export companies set Economic Order Quantity level to enable the firms to only order sufficient inventory at minimal costs. The companies should employ inventory control system for efficient management of inventory and prepare inventory budget is prepared to ensure adequate inventory is available for smooth operations of the firms.*

**Key Words:** Accounts Receivable Period, Payable Deferral, Inventory Conversion Period, Cash Flow Planning

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## INTRODUCTION

Globally, the witnessed global financial crisis in the last decade has highlighted the significance of good asset liquidity management in the organizations. As funds become increasingly scarce and expensive, liquidity management becomes ever more important (Wassie, 2021). The crisis has also underlined issues around leverage, while increased borrowing can help an institution increase its returns, it also exposes the institution to greater risk (Bouwman, 2017). Sound liquidity management is integral for any company's institutional stability and profitability, since deteriorating liquidity management is the most frequent cause of poor financial performance (Perways & Krishna, 2017).

Liquidity management deals with the problems of decision making for investment in current assets with an objective of maintaining the liquidity of funds of the firm to meet its day to day administration (Reheman & Nasr, 2017). It also refers to all managerial decisions and actions that ordinarily influence the size and effectiveness of the working capital. It is the process of planning and controlling the level and mix of current assets of the firm as well as financing these assets. Efficient management of liquidity is one of the pre-condition thus concerned with the most effective choice of working capital sources and the determination of appropriate levels of current assets and their uses. In the present day of raising capital cost, the importance of working capital needs special emphasis and it is very much particular in tea industry.

Van Home and Wachowicz, (2016) reasoned that a business with very low short-term assets might experience inadequacy and hardships in operations. On the other hand, extreme levels of short-term assets may harmfully affect the business revenue. The capacity of a firm to clear amounts owing before deadline without tampering with the business activity is an expression of strength that is checked using liquidity measures. This guards a business against the threat of maintaining either

insufficient or excessive level of working capital because both affect the business negatively.

In the United States and United Kingdom, weak financial management, particularly poor working capital management practices is the primary cause of failure among firms (Bradley & Rubach, 2016). In Pakistani, surveys carried out have indicated that managers spend much of their time solving issues that involve working capital decisions (Raheman & Nasr, 2017). This is due to the fact that in order to find an optimal level of working capital, a firm has to achieve a balance between risks and efficiency (Filbeck & Kruger, 2015).

In Ethiopia, Wassie (2021) posits that the managers of different firms operating in Ethiopia are managing the working capital of their firm traditionally which is practically considered as narrowing the cash conversion cycle for the increment of the firm's profitability or performance. Her study found that account receivables period, cash conversion cycle, inventory conversion period, and accounts payable period have a statistically significant and positive correlation with the performance of exporting firms in Ethiopia.

In Kenya, tea sector is the most important agricultural sub-sector contributing about 26 percent of the total foreign exchange earnings (KTDA, 2016). Due to this contribution to the economy, Kenyan government listed the tea sector as one of the pillars of achieving the government's Vision 2030. In 2019, Kenya exported \$1.13B in Tea, making it the 2nd largest exporter of Tea in the world. At the same year, tea was the 1st most exported product in Kenya. The main tea exports destinations from Kenya include Pakistani (\$429M), Egypt (\$169M), United Kingdom (\$121M), United Arab Emirates (\$55.7M), and Yemen (\$49M).

Tea companies are wary of the financial crisis deepening after suffering an estimated production loss of around 80 million kg (mkg) this year due to Covid-19 pandemic. In 2020, Kenya's major export commodities registered a mixed fortune with the price of tea taking a deep hit. Decreased earnings

for tea was attributed to low international prices where Kenya sells almost all the produce.

### Statement of the Problem

Proper liquidity management practices play a pivotal role in determining performance of a firm. Although the tea industry plays a significant role in Kenyan economy, the performance of the tea exporting firms has not been satisfactory due to international markets shocks occasioned by lockdowns amid Covid-19 rampage. For instance, in 2020 the price of tea took a deep hit. Tea earnings dropped by 4 percent at the end of the 2019/20 crop year compared with the previous period following a 13 percent slump in the price of the commodity in the international market. According to KNBS (2020) tea earned Kenya Sh113.45 billion in 2020, down from Sh130.25 billion realized in 2019. These changes in tea earnings have disturbed the liquidity positions of tea export firms. Tea export firms have suffered working capital declines. For instance, James Finley recorded an increase in current liabilities by 113 million to 736 million in 2020 mainly due to the increase in trade payables (Finlays annual report, 2020).

Various studies relating to liquidity management have been conducted both in Kenya and in other economies. Globally, Wassie (2021) sought to examine the impact of working capital management on the performance of exporting firms in Ethiopia. Reheman and Nasr (2017) on working capital management and its effect on liquidity as well as profitability of the firms. Ngari (2021) did an investigation on the effect of working capital management cycle on profitability of household supermarkets in Kenya. Locally, Dancan, Othuon, Gatimbu, Musafiri, and Ngetich, (2021) did a study on the working capital management impacts on small-scale coffee wet mills financial performance in eastern Kenya. Kiptoo (2018) investigated working capital management practices and financial performance of tea processing firms in Kenya. However, the reviewed studies have mostly concentrated on commercial banks and SACCOs and very scant empirical exists on liquidity management

in the context of tea exporting firms. The current study sought to investigate the effect of liquidity management on financial performance of tea exporting firms in Mombasa County, Kenya.

### Objectives of the Study

#### General Objective

The general objective of the study was to investigate the effect of liquidity management on financial performance of tea export companies in Mombasa County, Kenya. The study was guided by the following specific objectives;

- To establish the effect of accounts receivable period on financial performance of tea export companies in Mombasa County, Kenya
- To determine the effect of payable deferral period on financial performance of tea export companies in Mombasa County, Kenya
- To establish the effect of inventory conversion period on financial performance of tea export companies in Mombasa County, Kenya
- To establish the effect of cash flow planning on financial performance of tea export companies in Mombasa County, Kenya

The study tested the following research Hypotheses;

- **HO<sub>1</sub>:** Accounts receivable cycle has no significant effect on financial performance of tea export companies in Mombasa County, Kenya
- **HO<sub>2</sub>:** Payable deferral period has no significant effect on financial performance of tea export companies in Mombasa County, Kenya
- **HO<sub>3</sub>:** Inventory conversion period has no significant effect on financial performance of tea export companies in Mombasa County, Kenya
- **HO<sub>4</sub>:** Cash flow planning has no significant effect on financial performance of tea exporting companies in Mombasa County, Kenya

## LITERATURE REVIEW

### Theoretical Review

#### Liquidity Preference Theory

The theory was proposed and developed by John Maynard Keynes in 1936. Keynes described liquidity preference theory as individuals' value money for both the transaction of current business and its use as a store of wealth (Bibow, 2015). Thus, individuals will sacrifice the ability to earn interest on liquid cash that individuals want to spend in the present, and that individuals want to have it on hand as a precaution. On the other hand, when interest rates increase, individuals become willing to hold less cash for these purposes in order to earn a profit.

The theory argues that cash is required for precautionary, speculative and transaction motives. Precautionary motive is the need for a safety supply of cash and financial reserve. The speculative motive is the necessity to hold cash in order to take advantage of investment opportunities. Transaction motive is the requirement to have cash on hand to pay bills which include the payment of salaries, dividends, trade debts and taxes. Pandey (2010) supported this theory and suggested that the need for cash to run the daily operations of a firm cannot be ignored. Entities should therefore invest adequate available funds in current assets for the success of its operations. The theory highlights why different approaches are adopted in managing cash and therefore enables the study to establish how the various firms have utilized these approaches and its effect on their financial performance. However, this theory does not give the optimum amount of cash that can be held at a given time or a model that can be used to arrive at optimum amount. The theory supports cash management variable in the study.

#### Cash Conversion Cycle Theory

Gitman in 1974 developed cash conversion cycle as part of the operating cycle. To calculate it, accounts receivables period and inventory period are added and then accounts payables are subtracted. It focuses on the inflows of cash from the sale of

finished goods and the length of time between the acquisitions of raw materials. The CCC combines both balance sheet and income statement data to create a measure with a time dimension making it more dynamic as a measure of liquidity management (Jose & Lancaster, 1996). The length of CCC, however, differs from industry to industry and therefore, the more accurate way to access industry benchmarks is to compare a specific firm to the industry in which it operates (Hutchinson, 2007). This is because it shows the time lag between expenditure for the purchase of raw materials and the collections from sales of finished goods (Padachi, 2006). For its success, it is necessary to manage short term assets and liabilities on a day to day basis.

The cash conversion cycle theory informed the current study since it embodies the interaction between the components of liquidity and the flow of cash within the company. It can also be used to find out the total cash needed at any level of sales especially in the manufacturing sector where, the level of accounts receivables, payables and inventories affects the liquidity position of the firm significantly (Arnold, 2008). Richards and Laughlin (1980) argued that traditional ratios such as current ratio, quick /acid test and cash ratios are not accurate enough to provide information about the working capital of a firm. They insisted that it is necessary for firms to use ongoing liquidity measures when calculating working capital management. In this instance, ongoing liquidity represents the inflows and outflows of cash as a result of the acquisition, production, sales, payment and collection processes over a period of time. It is in itself, a function of the cash conversion cycle of the firm, making it more appropriate for evaluation.

The relevance of cash conversion cycle in modern organizations is grounded on the idea that, a higher CCC has a negative effect on the profitability of the company since it means that the company has cash tied to its accounts that bear no interest. Consequently, shortening the CCC enables the company to have cash flows with higher net present

value since the money is received faster. For this reason, the cash conversion cycle is integral in linking how cash management can be of importance in determining the financial performance of tea export firms. The theory supports liquidity management and cash flow planning variables in the study.

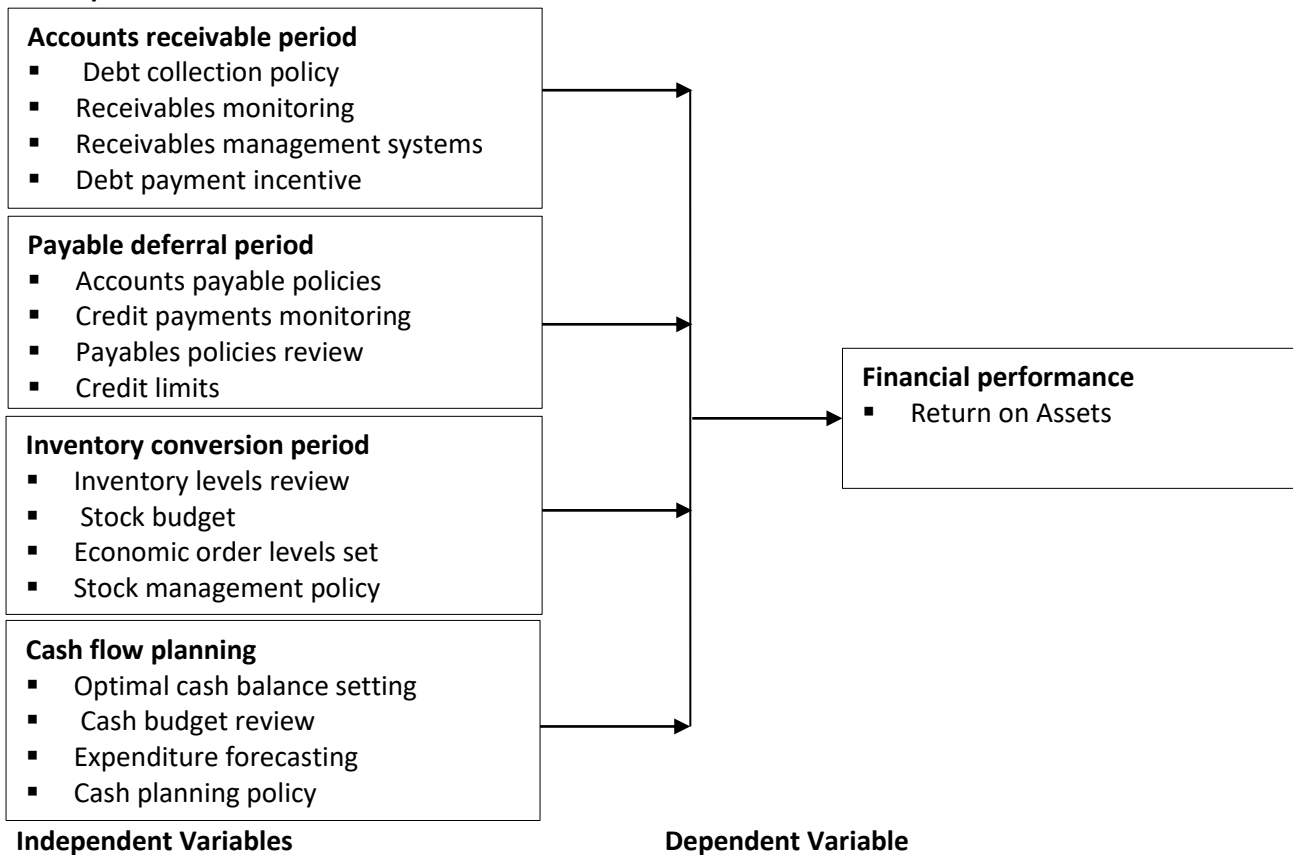
**Operating Cycle Theory**

Richards and Laughlin in 1980 are widely credited to the advancement of the operating cycle theory and the cash conversion cycle. They posited that use of receivables and the inventory turnover data in the operating cycle are important aspects in understanding the financial flows of a firm. For a firm to develop the concept of liquidity, it has to include the income statement of the firm’s operating activities to the static balance sheet analysis of the value in liquidation. The current and acid-test ratio indicators of solvency are not reliable enough since they do not provide the most appropriate view of liquidity management. As a result, more and more companies incorporate

accounts receivable and inventory turnover measures into the operating cycle since its perspective in liquidity management is more in-depth. This is because the additional liquidity measures recognize life expectancies of some working capital components that are not constant but susceptible to the irregularity of production, distribution (sales) and collection (Weston & Eugene, 1979).

The operating cycle theory analyses clearly current asset account as an element of working capital and therefore gives income statement measures of firm’s operating activities, that is, about production, distribution and collection. According to Richards and Laughlin, (2015) integrating the time pattern of cash outflow requirements imposed by a firm’s current liabilities is as important for liquidity analysis as evaluating the associated time pattern of cash inflows generated by the transformation of its current asset investments. The theory supports payable deferral period and accounts receivable period variables in the study.

**Conceptual Framework**



**Figure 1: Conceptual Framework**

## **Review of Literature on Variables**

### **Accounts Receivable Period**

The management of receivables is very crucial in order to control collection cost and bad debt. Management of accounts receivable is crucial to a firm because investment in account receivables has both costs and benefits. A firm should therefore strive to maintain such a level of receivables that will achieve the twin objectives of profitability and liquidity (Dunn, 2016).

Selling on credit is inevitable to a firm as long as there is competition in the industry. If a firm does not extend credit to its customers it will definitely lose them to its competitors. Investment in receivables therefore might not be an issue of choice but a key matter for survival (Kakuru, 2016). To ensure optimal investment in receivables, a firm must have an appropriate receivables management policy. The policy gives the guidelines on how to decide the customers to be offered sales on open account, payment terms, set the limits on outstanding balances and how to handle delinquent accounts (Filbeck & Krueger, 2015).

### **Payable Deferral Period**

The average payment period is the average length of time between the purchase of materials, labour and their payment of cash. It is calculated as;  $\text{payables} / (\text{purchase}) \times 365$ . Delaying the payment of bills by managers has become one of the main sources of finances for many companies. This can become risky for the business if the organization offers an early payment discount (Ruichao, 2016).

Hassan et al. (2016) targeted four companies located in Gorowe, Puntland in Somalia to establish how WCM has affected financial performance of water processing companies. The study covered the period from 2011 to 2015. The study employed agency, transaction and WCM cycle theories. Multiple linear regression of ROA was used on cash conversion cycle (CCC), stock turnover, receivable turnover and payable turnover ratios. Payable turnover ratio was found to have no effect on the

performance of water processing companies as shown on ROA.

### **Inventory Conversion Period**

The raw material and work-in-progress and finished goods are very important part of inventory, therefore, these should be properly managed. Inventory is the stock procured with the aim of selling at a profit and represents the largest cost to a manufacturing firm. Inventory consists of between 20% and 30% of the total investment in a manufacturing firm (Garcia & Martinez, 2007). Efficient management of inventory is therefore important in order to facilitate the firm's operations. Kwame (2007) established that most firms prepare inventory budgets and also review their inventory levels. Enhancing the inventory management enables firms to avoid tying excess capital in idle stock at the expense of other viable ventures (Lazaridis & Tryponidis, 2016).

Etale (2016) applied multiple regression technique in his academic work to test the effects of inventory administration on profit of listed breweries companies from year 2005 to 2014. Multiple regression analysis was used to analyze data. The study revealed that an efficient inventory cost control had a favorable effect on output of brewery firms. The researcher suggested that firms apply effective, proficient inventory cost practices, and modern technology for real cost management.

### **Cash Flow Planning**

Pandey (2016) describes cash flow planning as the process of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the optimal cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. Atrill (2016), there is need for careful planning and monitoring of cash flows over time so as to determine the optimal cash to hold. The assertion by (Ross et al., 2008) that reducing the time cash is tied up in the operating cycle

improves a business's profitability and market value furthers the significance of efficient cash management practices in improving business performance.

Cash balance management includes management of cash position, short-term borrowing, short term investing, cash forecasting. Huseyin, (2016) classifies cash management as operating transactions and financial transactions. The operating transactions include: accounting ledgers, invoicing, terms of sales - cash collection, cash control and processing as well as cash forecasting (Kytönen, 2016).

### **Financial Performance**

Financial performance is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability. It is measured through various business-related formulas that allow users to calculate exact details regarding a company's potential effectiveness.

Return on Assets is the measure of efficiency which determines how well the banks use its scarce resources to generate profits. It is the ratio of net income to the total asset. A higher ratio is an indication of a better financial performance. This ratio has been used in similar studies by Athanasoglou, Brissimis and Delis (2016); Perera, Skully and Chaudhry (2016). Capital Adequacy is very essential for the solvency and profitability of financial institutions. This is because the business of banking is risky due to the possibility that loans may not be paid back leading to financial losses to the bank. Banks are therefore required to have adequate capital, not only to remain solvent, but also to avoid the failure of the financial system. The current study uses return on assets, profitability and gross revenue as financial performance metrics.

### **Empirical Review**

Muthoga (2019) did a study on liquidity risks and profitability of commercial banks listed in Nairobi Securities Exchange. The specific objective was to evaluate the effect of net loan holdings, asset

quality and liquid assets holdings on profitability of listed commercial banks at the Nairobi Securities Exchange, Kenya. The research adopted causal research design where the study population comprised all the 11 listed commercial banks at the Nairobi Securities Exchange, Kenya as at December 2018. The research used descriptive analysis and panel regression analysis for the data analysis. The panel regression analysis indicated that net loans holdings have a negative and significant effect on the profitability of commercial banks. Similarly, with respect to asset quality and profitability of commercial banks, the regression output revealed that the effect of asset quality on profitability is negative and significant.

Wassie (2021) sought to examine the impact of working capital management on the performance of exporting firms in Ethiopia. Using the quantitative approach, the cross-sectional data was analyzed through the multiple regression models. To undertake this study, 164 exporting firms operating in Ethiopia were included as the study sample. Based on the results of the regression analysis account receivables period, cash conversion cycle, inventory conversion period, and accounts payable period have a statistically significant and positive correlation with the performance of exporting firms in Ethiopia. However, the inventory conversion period has an insignificant correlation with the performance of exporting firms which was measured by return on an asset in Ethiopia.

Dancan, Othuon, Gatimbu, Musafiri, and Ngetich, (2021) did a study on the working capital management impacts on small-scale coffee wet mills financial performance in eastern Kenya. The study collected the data from 41 small-scale coffee wet mills in Embu County, Eastern Kenya and adopted a multivariate regression analysis approach on panel data (2014–2018) to analyse working capital management's impact on small-scale coffee wet mills' financial performance. The study findings showed that the current ratio and average payment



period negatively affected the return on small-scale coffee wet mills' assets.

Ngari (2021) did an investigation on the effect of working capital management cycle on profitability of household supermarkets in Kenya. The objectives of the study were to evaluate the receivable conversion period, payable Deferral period, and inventory conversion period on the profitability of Household supermarket in Kenya. This study was guided by Operating Cycle Theory. The study used literature review methodology. The research concluded that firms that manage working capital efficiently enjoy the benefit of long survival in business, and that shareholders' value can be raised by reducing account receivable days, by hiking stocks to a sensible level, by taking long to pay suppliers yet ensuring good terms and by minimizing the CCC days.

Kiptoo (2018) investigated working capital management practices and financial performance of tea processing firms in Kenya. The study employed a cross-sectional descriptive research design. The target population was 54 tea processing firms in Kenya managed by KTDA. A sample of 48 tea processing firms was used in the study. Stratified random sampling method was used to select the sample. Primary data was collected by use of a questionnaire whereas the secondary data was collected by use of a record survey sheet. Pretesting was done to determine the reliability and validity of the questionnaire. The data collected was analyzed using Statistical Package for Social Sciences (SPSS). The study utilized both descriptive and inferential statistics. In descriptive analysis, mean, standard deviation and percentages of the responses were calculated. Under inferential statistics, Pearson's correlation, regression and ANOVA analyses were adopted. The findings of the study indicated that working capital management practices significantly affected the financial performance of tea processing firms.

Marenya (2020) conducted a study on working capital management and financial performance of manufacturing and allied category of firms listed in

Nairobi Securities Exchange. The study aimed at investigating how accounts receivables management, inventory management, accounts payables management and cash management influences the financial performance of manufacturing and allied category of firms listed at the NSE. The research utilized explanatory survey research design. The population of interest in this study constituted of all listed firms in the category of manufacturing and allied quoted at the NSE for the period of eleven years (2006 to 2016). The study relied on secondary sources of data that was collected using a data extraction form. The collected data was analysed using SPSS.v.23.0. Descriptive statistics was used in the analysis which involved the use of frequencies, means and standard deviation. The study used inferential statistics which involved tests for multiple regression assumptions of Multicollinearity, Normality, linearity tests, model fit and coefficients. The findings of the research indicated that there was a positive association of working capital management on the financial performance of manufacturing and allied category of firms.

## **METHODOLOGY**

The study adopted cross-sectional descriptive survey research design. The choice of this design compared to other designs is that data can be collected within a bracket of short period and the data can be collected less costly (Creswell, 2015). Target population of the study was twenty-three tea exporters licensed by Tea Board of Kenya operating in Mombasa County. Thus the current study targeted all 23 large scale tea exporting licensed by Tea Board of Kenya and operating within Mombasa Island. The unit of analysis was finance executives of all 23 large scale tea exporting firms. Having such a list was beneficial to the researcher because it reduces the length of time that is required to complete the study, cut costs involved and it will be manageable. In this research, the sampling frame was finance executives of the large scale tea exporting firms licensed by Tea Board of Kenya operating in Mombasa. The study

used census due to the small number of target population (Kothari, 2014). Primary data was gathered with the use of structured questionnaire. Questionnaire is a method of data collection whereby the respondents provide written answers to written questions. The choice of questionnaire as a method of data collection for this study is attributed to the fact that questionnaires are cost effective when compared to face-to-face interviews. In addition, questionnaires are easy to analyze. Moreover, questionnaires are familiar to most people as it is the most common method of data collection in a research. In this study, the researcher made use of closed ended questionnaire. Closed questionnaire provides uniformity in answering the questions by allowing respondents to provide their personal and unbiased views.

The researcher briefed the authority of tea exporters concerning the objective of the study. The questionnaires were administered through drop and pick method. This gave respondents ample time to fill the questionnaires. Delivering questionnaires by hand would help save time unlike sending by post that takes a longer period of time (Rahi, 2017). The filled questionnaires were collected after approximately five working days. Pilot study is a small scale study aimed at checking the data collection toll internal consistency and validity prior to actual data collection (Kothari, 2014). The study conducted pilot test on 12 respondents which forms 20 percent of the target population as posited by Riel (2016). The results of the pilot test were not included in the actual study.

Reliability is a measure of the extent to which instruments used in a research yield consistent results (Cooper & Schindler, 2015). The research instruments are required to be consistent. The respondents will be taken through the questionnaire which is the tool for collecting data collection. The pre-test was conducted by the researcher to ensure correct, accurate and meaningful data is captured by the research questionnaire. The Cronbach's  $\alpha$  coefficient of

reliability ranges from 0 to 1 in providing this overall assessment of a measure's reliability A minimum  $\alpha$  coefficient between 0.65 and 0.8 is recommended;  $\alpha$  coefficient, that are below 0.5 are generally not acceptable, particularly for scales that are one dimensional (Meeker & Escobar, 2014). The study adopted Cronbach test at  $\alpha$  coefficient of 0.70.

In ensuring content validity, the research questionnaires were given to experts in the field of finance to give their suggestions and opinions for improving the research questionnaire. Also, construct validity was achieved by reviewing various theoretical and empirical literature which provided more insight on the relevant concepts of the study. Thus, the research instrument items were constructed based on existing studies. The research supervisor was highly involved in ensuring validity of the research instruments.

After the questionnaires have been filled and collected, the researcher sieved through the data and thoroughly check for errors in responses, exaggerations or omissions. The study adopted descriptive analysis and inferential analysis where the study data was analyzed, presented and interpreted based on the study objectives. Descriptive statistics aim at providing the pattern of the responses and their consistency in each of the hypothesized variables. Inferential statistics provides more insight into the research findings. The research findings are presented using frequency and descriptive tables.

The following multiple regression models was developed to illustrate the association between liquidity management elements (account receivables period, payable deferral period, inventory conversion period and cash management) and financial performance as the dependent variable for tea export firms in Mombasa.

The multiple regression model adopted was in the form of;

$$\hat{Y} = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$$

Where:

$\hat{Y}$ = Predicted variable (Financial performance)

$\beta_0$  = Regression intercept  
 $\beta_1$ - $\beta_4$  are the coefficient of the regression model  
 $X_1$ = Accounts receivable period  
 $X_2$ = Payable deferral period

$X_3$ = Inventory conversion period  
 $X_4$ = Cash flow planning  
 $\epsilon$ = Error term of the model

**Table 1: Hypothesis Testing**

Hypothesis Statement	Hypothesis Test	Decision Rule
<b>H<sub>01</sub>:</b> Accounts receivable period has no significant effect on financial performance	H <sub>0</sub> : $\beta_1 = 0$ H <sub>A</sub> : $\beta_1 \neq 0$ -To conduct F-test to assess overall model significance	Reject H <sub>01</sub> IF P-value $\leq 0.05$ otherwise fail to reject H <sub>01</sub> if P-value is $> 0.05$
<b>H<sub>02</sub>:</b> Payable deferral period has no significant effect on financial performance	H <sub>0</sub> : $\beta_2 = 0$ H <sub>A</sub> : $\beta_2 \neq 0$ -To conduct F-test to assess overall model significance	Reject H <sub>02</sub> IF P-value $\leq 0.05$ otherwise fail to reject H <sub>02</sub> if P-value is $> 0.05$
<b>H<sub>03</sub>:</b> Inventory conversion period has no significant effect on financial performance	H <sub>0</sub> : $\beta_3 = 0$ H <sub>A</sub> : $\beta_3 \neq 0$ -To conduct F-test to assess overall model significance	Reject H <sub>03</sub> IF P-value $\leq 0.05$ otherwise fail to reject H <sub>03</sub> if P-value is $> 0.05$
<b>H<sub>04</sub>:</b> Cash flow planning has no significant effect on financial performance	H <sub>0</sub> : $\beta_4 = 0$ H <sub>A</sub> : $\beta_4 \neq 0$ -To conduct F-test to assess overall model significance	Reject H <sub>04</sub> IF P-value $\leq 0.05$ otherwise fail to reject H <sub>04</sub> if P-value is $> 0.05$

**FINDINGS AND DISCUSSIONS**

**Descriptive Results**

Descriptive analysis was conducted on the study variables to check the mean and standard deviation. The results are presented in the following tables.

**Accounts Receivable Period**

**Table 2: Accounts Receivable Period**

	Mean	Std deviation
The firm has receivables management policies to regulate the credit allowed and recovery of debtors	4.17	.231
The firm monitors accounts receivable to ensure timely recovery of debts	4.23	.536
The firms receivables collection policies are set to assist in reduction of bad debts	4.02	.444
The length of credit period to customers has an influence on sales	4.26	.703

The results in Table 2 showed that respondents agreed that the firm has receivables management policies to regulate the credit allowed and recovery of debtors and that the firm monitors accounts receivable to ensure timely recovery of debts as indicated by a mean of 4.17 and mean of 4.23

The researcher asked respondents to rate their agreement or disagreement on the various aspects of accounts receivable period. They were required to do this on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results are presented in Table 2.

respectively. Respondents also agreed that the firms receivables collection policies are set to assist in reduction of bad debts (mean=4.02) and that the length of credit period to customers has an influence on sales (mean=4.26). Results were in disagreed findings by Wassie (2021) which revealed

that account receivables period have a statistically significant and positive correlation with the performance of exporting firms in Ethiopia.

### Payable Deferral Period

The researcher asked respondents to rate their agreement or disagreement on the various aspects

of payable deferral period. They were required to do this on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results are presented in Table 3.

**Table 3: Payable Deferral Period**

	Mean	Std. Deviation
The firm has credit policies which serve to avoid liquidity risks	4.41	.817
The firm reviews its credit policies to ensure optimal credit is maintained at all times	2.15	.634
The firm uses credit facilities to adequately finance its operations	4.26	.509
The firm delays accounts payables till the due deadline	3.01	.822

The results in Table 3 have shown that respondents agreed that the firm has credit policies which serve to avoid liquidity risks and that the firm reviews its credit policies to ensure optimal credit is maintained at all times as indicated by a mean of 4.41 and mean of 4.26 respectively. However, respondents disagreed that the firm uses credit facilities to adequately finance its operations (mean=2.15). Respondents were indifferent to the statement that the firm delays accounts payables till the due deadline (mean=3.01). Findings were in agreement with Kiptoo (2018) whose study results

established that accounts payable deferral period significantly and positively affects the financial performance of tea processing firms.

### Inventory Conversion Period

The researcher asked respondents to rate their agreement or disagreement on the various aspects of inventory conversion period. They were required to do this on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results are presented in Table 4.

**Table 4: Inventory Conversion Period**

	Mean	Std. Deviation
Inventory budget is prepared to ensures adequate inventory is available for smooth operations of the firm	4.13	.882
The firm reviews the level of inventory to ensure optimal stock is maintained at all times	4.20	.887
The level of EOQ is set to enable a firm to order sufficient inventory at minimal costs	4.82	.883
The firm uses inventory control system for efficient management of inventory	4.89	.881

The results in Table 4 have shown that respondents agreed that inventory budget is prepared to ensures adequate inventory is available for smooth operations of the firm and that the firm reviews the level of inventory to ensure optimal stock is maintained at all times as indicated by a mean of 4.13 and mean of 4.20 respectively. Respondents also agreed that the level of EOQ is set to enable a

firm to order sufficient inventory at minimal costs (mean=4.82) and that the firm uses inventory control system for efficient management of inventory (mean=4.89). The findings were in agreement with Marenya (2020) which found that there was a positive association of inventory conversion period on the financial performance of manufacturing and allied category of firms.

### Cash Flow Planning

The researcher asked respondents to rate their agreement or disagreement on the various aspects of cash flow planning. They were required to do this

on a 5 point Likert scale where 1 represented Strongly disagree while 5 represented Strongly agree. The results are presented in Table 5.

**Table 5: Cash Flow Planning**

	Mean	Std. Deviation
The tea company undertakes regular budget cash budget	3.66	.753
The company sets optimal cash balance to ensure adequate liquidity is maintained at all times	4.66	.748
The company undertakes cash expenditure forecasting frequently	4.52	.741
The company has developed dynamic cash management policy to ensure cash adequacy	3.64	.756

The results in Table 5 revealed that respondents agreed that the tea company undertakes regular budget cash budget and that the company sets optimal cash balance to ensure adequate liquidity is maintained at all times as indicated by a mean of 3.66 and mean of 4.66 respectively. Respondents also agreed that the company undertakes cash expenditure forecasting frequently (mean=4.52)

and that the company has developed dynamic cash management policy to ensure cash adequacy (mean=3.64).

### Multiple Regression Analysis

The data was tested for multiple regression where liquidity management constructs were regressed on financial performance. Results are shown in the following tables.

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 <sup>a</sup>	.461	.428	1.9620

a. Predictors: (Constant), Accounts receivable period, Payable deferral period, Inventory conversion period, Cash flow planning

The regression results in Table 6 showed a moderate regression between liquidity management and financial performance of tea

export firms. In the model summary, the R<sup>2</sup> is 0.461 indicating that predictors explain 46.1 per cent change in financial performance.

**Table 6: Model Validity (Analysis of Variance)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2068.395	4	517.098	3.847	.001 <sup>b</sup>
	Residual	2419.218	18	134.401		
	Total	4487.613	22			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Accounts receivable period, Payable deferral period, Inventory conversion period, Cash flow planning

From the ANOVA results in Table 6, it was established that the significance value in testing the reliability of the model was obtained as 0.001 which is less than 0.05, the critical value at 95%

significance level. Therefore the model is statistically significant in predicting the relationship between the liquidity management and financial performance of tea export firms.

**Table 7: Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	11.519	4.061		2.836	.000
Accounts receivable period	-.438	.199	-.175	-2.201	.035
Payable deferral period	.175	.059	.127	2.966	.020
Inventory conversion period	-.519	.216	-.483	-2.403	.042
Cash flow planning	.407	.122	.175	3.336	.000

a. Dependent Variable: Financial performance

The derived regression coefficients of the model are:

$$Y = 11.519 - .438X_1 + .175X_2 - .519X_3 + .407X_4$$

The regression results showed that independent variables had significant value below 0.05 meaning that they were all significant. From the results, it showed that holding all factors constant at zero, the change in financial performance would be 15.012. Further, the regression results showed that a unit change in accounts receivable period would lead to 0.438 unit change in financial performance. A unit change in payable deferral period would lead to 0.175 unit change in financial performance. Further, a unit change in inventory conversion period would lead to 0.519 unit change in financial performance and finally, a unit change in cash flow planning would lead to 0.407 unit change in financial performance.

#### Discussion of Major Findings and Hypothesis Testing

The regression coefficient results was used to achieve the study objectives. This was achieved by considering the P-values that are associated with the relevant regression coefficients and t-values. The first objective of the study was to find out how accounts receivable period affect financial performance of tea exporting firms. The regression results for accounts receivable period was ( $\beta_1=0.438$ ,  $p<0.05$ ) showing that there was a negative but significant effect of accounts receivable period and financial performance. The

study concludes that a unit change in accounts receivable period would lead to -0.438 unit change in financial performance. Findings, therefore, reject the null hypothesis that accounts receivable period has no significant effect on financial performance of tea exporting firms. Results were in disagreed findings by Wassie (2021) which revealed that account receivables period have a statistically significant and positive correlation with the performance of exporting firms in Ethiopia.

The second objective of the study was to find out how payable deferral period affect financial performance of tea exporting firms. The regression results for payable deferral period was ( $\beta_2=0.175$ ,  $p<0.05$ ) showing that there was a positive and significant effect of payable deferral period and financial performance. The study concludes that a unit change in payable deferral period would lead to 0.175 unit change in financial performance. Findings, therefore, reject the null hypothesis that payable deferral period has no significant effect on financial performance of tea exporting firms. Findings were in agreement with Kiptoo (2018) whose study results established that accounts payable deferral period significantly and positively affects the financial performance of tea processing firms.

The third objective of the study was to investigate the effect of inventory conversion period on financial performance of tea exporting firms. The regression results for inventory conversion period was ( $\beta_3=-0.519$ ,  $p<0.05$ ) showing that there was a negative but significant effect of inventory

conversion period and financial performance. The study concludes that a unit change in inventory conversion period would lead to decrease by 0.519 unit change in financial performance. Findings, therefore, reject the null hypothesis that inventory conversion period has no significant effect on financial performance of tea exporting firms. The findings were in agreement with Marenya (2020) which found that there was a positive association of inventory conversion period on the financial performance of manufacturing and allied category of firms.

The fourth objective of the study was to investigate the effect of cash flow planning on financial performance of tea exporting firms. The regression results for cash flow planning was ( $\beta_4=0.407$ ,  $p<0.05$ ) showing that there was a positive and significant effect of cash flow planning and financial performance. The study concludes that a unit change in cash flow planning would lead to 0.407 unit change in financial performance. Findings, therefore, reject the null hypothesis that cash flow planning has no significant effect on financial performance of tea exporting firms.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Summary of the Findings**

The purpose of the study was to investigate the effect of liquidity management on financial performance of tea export firms in Mombasa County. The results of the pilot study, the respondents' demographic data, the descriptive analysis of independent variables, and the inferential statistics are the four sub-sections that make up the study.

Descriptive results showed that tea exporting firms have receivables management policies to regulate the credit allowed and recovery of debtors. Also the study findings revealed that the firms monitor accounts receivable to ensure timely recovery of debts. The results indicate that tea export firms' receivables collection policies are set to assist in reduction of bad debts and the length of credit period to customers has an influence on sales.

Regression results revealed that accounts receivable period has significant effect on financial performance.

Descriptive analysis results revealed that tea export firms have credit policies which serve to avoid liquidity risks. Further, the study established that the firms review their credit policies to ensure optimal credit is maintained at all times. However, the findings showed that tea export firms use credit facilities to adequately finance its operations. The firms delay accounts payables till the due deadline. Regression results revealed that payable deferral period has significant effect on financial performance.

Descriptive findings indicated that the tea export firms' inventory budget is prepared to ensure adequate inventory is available for smooth operations of the firms. Also the study established that the firms' review the level of inventory to ensure optimal stock is maintained at all times and avoid stock out costs. The level of Economic Order Quantity is set to enable a firm to order sufficient inventory at minimal costs. Results further revealed that tea export firms use inventory control system for efficient management of inventory. Regression results revealed that inventory conversion period has significant effect on financial performance.

Descriptive results showed that the tea export companies undertake cash budget. Also the companies set optimal cash balance to ensure adequate liquidity is maintained at all times. Results showed that the firms undertake cash expenditure forecasting frequently and that they have developed dynamic cash management policy to ensure cash adequacy. Regression results revealed that cash flow planning has significant effect on financial performance.

### **Conclusions of the Study**

The study concluded that accounts receivable period affects financial performance significantly but negatively. The tea export firms' receivables collection policies are set to assist in reduction of bad debts and the length of credit period to

customers has an influence on sales. The study concludes that the tea exporting firms have receivables management policies to regulate the credit allowed and recovery of debtors. The companies monitor accounts receivable to ensure timely recovery of debts.

The study concluded that payable deferral period significantly affect financial performance. The companies in tea export review their credit policies to ensure optimal credit is maintained at all times. The study concludes that tea export firms have credit policies which serve to avoid liquidity risks. The tea export firms utilize credit facilities to adequately finance its operations and they delay accounts payables till the due deadline. So as to utilize the funds in other profitable tasks.

The study concluded that inventory conversion period affects financial performance significantly but negatively. The level of Economic Order Quantity is set to enable a firm to order sufficient inventory at minimal costs. It is concluded that tea export firms use inventory control system for efficient management of inventory. The study concludes that the tea export firms' inventory budget is prepared to ensure adequate inventory is available for smooth operations of the firms. Also the firms' review the level of inventory to ensure optimal stock is maintained at all times and avoid stock out costs.

The study concluded that cash flow planning affects financial performance significantly. The study concludes that the tea export companies undertake regular budget cash budget. The companies undertake cash expenditure forecasting frequently and that they have developed dynamic cash management policy to ensure cash adequacy. The study concludes that the tea export companies set optimal cash balance to ensure adequate liquidity is maintained at all times.

#### **Recommendations of the Study**

The study recommended that the management of tea export firms should design receivables collection policies to guide in bad debts

management. Also the length of customers' credit period should be monitored and reviewed constantly. The tea exporting firms should develop receivables management policies and use them to regulate the credit allowed and recovery of debts. The companies should closely monitor accounts receivable to ensure timely recovery of debts.

The study recommended that the management of companies in tea export should review their credit policies to ensure optimal credit is maintained at all times. Also tea export firms should have credit policies which serve to avoid liquidity risks and the firms should utilize credit facilities to adequately finance its operations. Also they should strategically seek to delay accounts payables till the due deadline.

The study recommended that the tea export companies set Economic Order Quantity level to enable the firms to only order sufficient inventory at minimal costs. The companies should employ inventory control system for efficient management of inventory and prepare inventory budget is prepared to ensure adequate inventory is available for smooth operations of the firms.

The study recommended that management of tea export companies should undertake regular budget cash budget to promote prudence in cash flow management. The companies in tea export should undertake cash expenditure forecasting frequently to ascertain liquidity positions in advance. These companies should develop dynamic cash management policy to ensure cash adequacy. The study recommends that companies in tea export should set optimal cash balance to ensure adequate liquidity is maintained at all times.

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

The study has been limited on liquidity management and financial performance in the context of tea export companies in Mombasa. However, the liquidity management aspects adopted in the current study only explain change in financial performance by 46.1%, there's need to conduct other studies focusing on other theoretical



aspects of liquidity management not factored in the current study to ascertain their effect on financial performance of firms in other sectors of the economy. In addition, a study should be carried out

on liquidity management and financial performance with increased target population as the current study only focused on 23 tea export firms.

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