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ABSTRACT

This research determined the effect of working capital management on profitability of tea processing firms in the Aberdare Ranges region of Kenya. The empirical investigation was anchored on the liquidity preference theory, the operational cycle theory, and the theory of profitability-liquidity trade-off. This study adopted a descriptive survey approach and target tea processing factories in the Aberdare ranges region of Kenya under the Kenya Tea Development Authority management. The study adopted purposive sampling to target unit managers, procurement managers, and finance managers as the chosen respondents as they possess the necessary data for the study. A census approach was adopted as the sampling design focusing on all 21 tea processing firms in Aberdare ranges region in the study. The study utilized both primary and secondary data that was collected by use of questionnaires and data collection sheets, respectively. The study considered a five-year span from 2017-2021. Multiple linear regression analysis, correlation analysis, and descriptive analysis were used to analyse data. The results were displayed as graphs, charts, and tables. The study found that cash management had a positive and significant effect on the profitability of tea processing firms in the Aberdares region of Kenya. In addition, inventory management had a significant and positive effect on the profitability of tea processing firms in the Aberdares region. The findings also indicated that debt management had a positive and effect on the profitability of tea processing firms in Aberdares region of Kenya. Further, the study established that credit management had a positive and significant effect on the profitability of the tea processing firms in Aberdares region of Kenya. The study recommends that the management of tea processing firms should make use of cash budgeting, review of target cash balance and preparation of cash flow statements to improve the profitability of their firms. In addition, tea processing firms should make use of effective and efficient order management as a strategy for inventory management so as to improve profitability. By implementing effective order management strategies, businesses can optimize inventory levels, minimize stock outs, and improve customer satisfaction.

***Key Words:** Cash Management, Inventory Administration, Debt Management, Credit Administration*

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INTRODUCTION

Tea is one of the greatest contributors of the global agricultural economy. Besides being a key foreign exchange earner, tea also provides a livelihood to millions of households across the world. To the Kenyan economy, tea is significant as it accounts for 11% of the 26% that the agricultural sector contributes to the Gross Domestic Product (Tea Board of Kenya, 2018). Tea also stands out as the principal foreign exchange stipendiary to the Kenyan economy. In Africa, Kenya is among the largest tea producers. Moreover, Kenyan tea production has increased, having quadrupled its exports over the last decade (Tea Board of Kenya, 2018). The tea business, a significant contributor to the agricultural sector that contributes the most to development, has been singled out as essential to achieving the objectives outlined in Kenya Vision 2030, the country's development strategy (Riisgaard & Okinda, 2018). Tea is a critical cash crop and plays an essential role in food security, poverty reduction and rural growth. In Kenya, more than 5 million individuals earn their living from the processing and cultivation of tea

The research focused on four independent variables: credit account management inventory management, debtor's management, cash management. Prudent cash management involves the procedure of monitoring cash collection and analysing the application in investment activities. Cash management is also significant for ensuring tea processing firms' financial solvency and stability. Cash management ensures that the tea processing firms maintain substantial cash and that the surplus is correctly utilized (Danjuma et al., 2015). Inventory management is also critical in determining the profitability of the Aberdare tea processing firms. Therefore, keeping an appropriate inventory level is a primary issue for the company's operational performance (Gakii, 2010). The third variable the research investigated is debtor's management. Debtor's management involves setting up a system to manage the firm's debtors. Any tea processing firm that extends credit to its clients' risks dealing with bad credit (Davis, 2016). Lastly, credit management involves offering praise to the clients, setting payment conditions and terms to enable them to repay their bills in full and on time, and ensuring clients comply according to the firm's credit policy. Operative credit management utilizes a proactive and continuous process of evaluating and identifying risks for loss and strategically guarding against the inherent risks of extending credit.

Working capital is the amount of money that is required by a business entity to meet its short-term obligations. Working capital determines the solvency of a business which is an important measure that determines whether a business will incur profits in the future or not. The company's liquidity increases as working capital grows. However, because current assets have a low rate of return, they are undesirable, as working capital increases, the company's profitability consequently declines. Working capital offers information about a company's operational effectiveness and general financial well-being. A company needs a specific level of cash to cover unexpected expenses, buy raw materials needed in manufacturing and make monthly payments to pay bills. Consequently, the minimum amount of money required to sustain normal operations is referred to as working capital. Working capital measures the difference between the current assets and liabilities of a firm. When a company has a positive working capital, it shows that it will be able to pay its bills in the coming months. Liquidity for a business is a measure of how well it can get the money it needs to pay its debts or how well it can pay its bills when they are due. Working capital measures how much money a business has to pay off its debts (Lipson, 2013).

In Kenya, the tea income attributable to farmers has been deteriorating significantly discouraging production of the highly valuable commodity. There have been concerns about growing inefficiencies on the inability to contain production costs which have translated to vastly diluted profits. For the fiscal year 2019/2020, the production costs per kilogram of tea stood at USD 2.42 compared to an average auction price of 2.59 in 2019 representing a margin of only 0.17 USD per kilogram of tea (Yang, 2020). Underprivileged Management of working capital has been recognized as being among the most critical problems contributing to the cash flow and profit inefficiencies that tea processing companies are experiencing.

Debtors management, according to Li (2019) is a process that involves forming a credit and collections guidelines for a firm's credit. Other decisions that are crucial in the management of accounts payables include deciding whether to sell on credit, partial credit or offer no credit at all and how either decision would impact the running and consequently the profitability of the business. Credit management is the collection of policies and practices that a business has implemented to control and monitor its debt obligations, particularly debt incurred through credit purchases (Perepeliza & Moises Netherlander, 2013). Accounts payable is the amount of money a company owes its debtors, and has to be indicated as a liability when preparing the firm’s balance sheet. Thus, tracking such information ensures that a company can evaluate its trade credit channels, seek better terms of purchase, and manage the frequency and scheduling of purchases to maintain acceptable levels of the company's working capital leading to greater efficiency.

Niresh and Velnampy, in their 2014 paper, noted that profit and profitability are interchangeably utilized but are two different terms. Profitability refers to the metric used to measure the scope of a firm's profit relative to its size. In contrast, profit is defined as a firm's revenue after incurring costs and expenses. Profitability indicates the effectiveness and efficiency with which management may profit from the utilization of given resources. Distinct researchers have diverse definitions of profitability (Niresh &Velnampy, 2014). Harward and Upton noted in their paper that profitability is a venture capacity to earn a return on its investment (Harward & Upton, 2021). Hermanson defines profitability as a firm's ability to create revenue, while its inability to do so is a loss. Hermanson argues further that profitability is achieved when income exceeds input costs. However, if the pay-out is less than the input costs, poor performance will occur (Hermanson, 2013).

Tea processing firms in Kenya, including firms in the Aberdare ranges region, strive to become more effective and efficient in utilizing resources to improve their financial performance. High demands are presently placed on tea processing firms' ability to meet stakeholders' expectations. To attain higher levels of efficiency needed to maximize shareholder's returns, one must recognize the relevance and influence of working capital. Although the Aberdare ranges region tea processing firms are located at a quite conducive environment with a double rainfall of 1500 mm-1800 mm yearly with deep, well-drained Nitrosols and Andsols with acidic, humid top soils, they have continued to record reduced and undesirable financial performance

Data released by the Tea Board of Kenya (2018), indicates that tea is the main cash crop grown in Kenya contributing a significant 11 percent of the 26.00 percent of agricultural sector gross domestic product revenue. There are 68 tea factories registered by Tea Board of Kenya. The KTDA is incorporated as a private company under Kenyan Law (CAP 486) and manages tea factories on its members’ behalf. It is the largest private tea management agency in Kenya. KTDA manages sixty-eight tea processing firms in Kenya. The agency has demarcated the tea factories into seven regions for ease of reference in management. The regions include the Aberdare’s Ranges Region, Mt Kenya Region, Western Highlands Region, Kisii Highlands Region, Kericho Highlands Region, Nandi hills and Nyambene Hills Region. According to the KTDA Holdings Ltd (2018), the Aberdare ranges region which was the focus of this research has a total of 21 tea factories.

Statement of the Problem

The tea industry plays an instrumental role to the Kenyan economy accounting for 11 percent of the 26 percent that the agricultural industry contributes to the gross domestic product besides consistently being the largest foreign exchange earner (Tea Board of Kenya, 2018). The robust industry is considered key in achievement of goals envisioned in development blueprint, Kenya Vision 2030 (Owuor, 2011). Nevertheless, the sector has been faced with persistent liquidity inefficiencies occasioned by snowballing operating costs amidst a background of deteriorating tea auction prices.

While quite a number of the research projects have been undertaken in this area, there exist informational gaps that need to be addressed. Shivakumar and Thimmaiah (2016) investigated operational capital administration and its effect on liquidity of Coal India Ltd. Results indicated that receivables administration as a facet of working capital administration influences the liquidity and consequently financial performance. Empirical gaps were noted due to the desire to spread the structure of investigation to cover more working capital management variables for example inventory management and payables management. Wieczorek-Kosmala, Doś, Blach, and Gorczyńska (2016) examined WCM and liquidity reserves in Poland. Results indicated that working capital management influences financial performance. There is a need to replicate a similar study using the local data.

Ncube (2015) analyzed how working capital management affects the liquidity position using empirical data obtained from manufacturing organizations registered on the Zimbabwe Stock Exchange (ZSE) between 2012 and 2013. The study shows that Cash conversion cycle has a weak connection with liquidity as indicated by the quick ratio. The research demonstrates contextual gaps regarding the requirement for a local investigation in order to obtain appropriate and conclusive conclusions. Ndagijimana (2014) assessed operating capital regulatory policies in SMEs in Nairobi, Kenya. Debt, credit, and cash management were the principal working capital management techniques considered by most organizations in the study, according to the study's findings. Empirical gaps indicated the necessity to broaden the calculation to determine whether working capital management strategies are associated with profitability.

Palombini and Nakamura (2012) studied critical elements in operational capital administration in the Brazilian market. Results indicated that the amount of the liability and its growth will have an effect on operational capital administration of industries. Thus, this study identified empirical gaps that must be addressed to underline the importance of managing working capital and it influences a company's productivity. Methodological gaps were also uncovered on the requirement to employ primary data in addition to secondary data in order to gain additional information that may not be available from primary sources. Hence, in order to fill the contextual, empirical and methodological gaps featured in the review, the study sought to examine the effect of working capital management on profitability of tea factories in the Aberdare Ranges region of Kenya.

Objectives of the Study

The study' broad purpose was to investigate the effects of working capital management on the profitability of tea processing enterprises in the Aberdare Ranges region of Kenya. The research sought to accomplish the following precise objectives:

- To examine the effects of cash management on profitability of tea processing firms in the Aberdare Ranges region, Kenya.
- To assess the effects of inventory management on the profitability of tea processing firms in Kenya's Aberdare Ranges region, Kenya
- To determine the effects of debt management on profitability of tea processing firms in the Aberdare Ranges region, Kenya.

- To assess the effects of credit management on profitability of tea processing firms in the Aberdare Ranges region, Kenya.

The research tested the following null hypotheses:

- $H0_1$: Cash management has no significant effect on profitability of tea processing firms in the Aberdare Ranges region, Kenya.
- $H0_2$: Inventory management has no significant effect on profitability of tea processing firms in the Aberdare Ranges region, Kenya.
- $H0_3$: Debt management has no significant effect on profitability of tea processing firms in the Aberdare Ranges region, Kenya.
- $H0_4$: Credit management has no significant effect on profitability of tea processing firms in the Aberdare Ranges region, Kenya.

LITERATURE REVIEW

Theoretical Review

Liquidity Preference Theory

Developed by Keynes (1937), the liquidity preference theory provides a basis for liquidity management in an organization. The theoretical orientation underlines three critical motives for holding money namely, speculative motive, precautionary motive, and transactions motives. The transactional motive of holding money is informed by the need for cash the organization to transact and efficiently to meet daily engagements and obligations of cash management. The theory takes the transaction component of the demand for money to be proportional to income which in turn impact profitability (Tobin, 1958).

According to Arestis and Sawyer (2006), the precautionary motive extends the framework of the classical or traditional approach to suggest that money demand is determined too, by the need to cushion against unanticipated needs or chances of the future. On the foundational argument that money also serves as a store of wealth, liquidity preference theorists present the speculative motive as the third dimension of explaining why organizations would hold money. The theory, however, recognizes that a range of other factors would also determine and influence the amount of money to hold based on its demand. Low demand of money may occur when there are high inflation rates, and people would prefer to have assets that do not lose value as market interest rates affect the value of money (Tily, 2006).

However, liquidity preference theory assumes that employment rate is constant, which is not the case. The theory also considers the income level and claims it is either investment or cash in bonds. In today's world, most individuals have cash at their disposal for investments in bonds and liquidity purposes. Liquidity preference theory ignores the scenario of receiving interest benefits for receiving liquidity benefits from the remaining funds and the receiving interest benefits from some funds. The theory also assumes abstinence time and waiting preference as the only cause of interest payment. The approach also claims that it is either investment or cash in bonds. Thus, the hypothesis disregards the possibility of earning interest income for some funds and benefits of liquidity for the remaining funds. The other criticism is that distinct interest rates exist in different markets simultaneously, which the theory completely ignores. Lastly, the theory ignores individual savings (Jörg Bibow, 2011).

Operating Cycle Theory

Proposed by Richards and Laughlin (1980), operating cycle theory focuses on sensible managing of working capital and its specific factors. The founding proposition of the theory is that static ratios are not enough to give an accurate position when evaluating a business' liquidity and profitability positions. The period it takes for a firm to buy inventory, sell that inventory, and get paid for the commodities sold is represented by an operational cycle (Hill, 2013). Hrishikes Bhattacharya, in his research in 2014 shows how a company's operating cycle depends on conditions of payments it receives from both its customers and its suppliers. Therefore, if a business entity has a more extended period to compensate its suppliers; it reduces its operation cycle by withholding the expenditure of cash thus impacting the profitability of the firm.

A shorter operating is ideal for the organization since it ensures that it has a healthy cash flow perspective (Ross et al., 2018). Even though inventory turnover and receivable analysis of an operating period are used to assess the cash status of a business, the two measures are not adequate and need to be complemented by other assessments, as the analysis does not entail all elements of capital management. Thus, the inclusion of a payables turnover ratio, and the ensuing calculation of the cash conversion cycle, adds a new element thus resulting into a better analysis of profitability and working capital management (Ukaegbu, 2014).

The static asset report study of possible liquidation value scope can be expanded to include wage articulation measurements of an association's working activity to generate the stream idea of liquidity. In particular, combining sales and stock turnover data into a working cycle concept offers a more helpful perspective on managing liquidity than does reliance on present and fundamental analyses as markers of dissolvability. The firm's operating cycle declares the link between work in progress, cash, inventory management, debtors, and company creditors. The working capital assembly of a company depends on the net operating cycle (Gao, 2022). Thus, there is a need to use other measurement parameters, including the net profit margin and return on investment (Bhattacharya, 2014). Thus, the concept was useful in establishing proper cash management, inventory management, debtors and credit management as variables included in the study.

Trade-Off Theory of Liquidity

It is a theory that was proposed by Campbell and Kelly (1994) and was based on the principle that business entities seek to attain a proper liquidity and profitability level, that would not jeopardize business operations. The expense of retaining money must be compared to the return on investment for the business, and thus, having a proper balance ensures that a business does not take too much risk. Holding cash has undesirable costs, such low rates of return on idle assets and tax disadvantage (Dudley, 2007). On the contrary, the benefits of holding a reasonable amount of cash include savings on transaction costs needed to turn assets into cash to enable a business to pay its obligations (Lipson, 2013).

Profitability and liquidity trade-off are critical issues among the tea processing firms in the Aberdare ranges region in Kenya. These two aspects relate to the company's management of current liabilities and assets in a manner that optimizes profits. As firms desire to have fewer current assets and liabilities, the profitability of the mentioned firms is adversely impacted. Trade-off theory postulates that corporations decide how to assign their resources by considering the tax benefits of borrowing against their bankruptcy costs, targeting for the optimal debt ratio. Another assumption of the trade-off theory is that it predicts a positive relationship between leverage earnings (Lipson, 2013).

Operative management of sources of funds and short-term assets has become critical in today's business world because of the fluctuations in commodity and financial markets. The finance literature examines the management of short-term sources of funds and short-term assets within the context of working capital management. Liquidity choice is considered to be within the framework of working capital management scope. The choice of short-term assets versus cash has a massive impact on the firm's profitability and risk. The main view in finance indicates that managers trade profitability and liquidity. Financing preferences and costs impact the firm's riskiness and profitability. Conclusively, Liquidity and risk are inversely correlated with respect to a company's working capital, such that liquidity and risk move in the opposite direction. Consequently, a trade-off exists between risks (liquidity) and return (profitability) and required for optimal financial performance.

Empirical Review

Cash Management and Profitability

Danjuma, Umar and Hammawa (2015) examined interceding effects of managing cash in the analysis of impact of liquidity and capital structure of SMEs financial performance in Jimeta, Adamawa state. The research recognized a positive link (r=0.640) between management of cash and liquidity position. Additionally, the findings of the regression study exhibited that the methods used for cash management accounted for 41% of the variation in liquidity. Contextual gaps arise when there is a need to have similar studies for the local firms. Empirical gaps arise as there is a desire to apply the concept of managing working capital and its effects on the gain on local tea processing companies.

Ncube (2015) studied the influence of managing working capital on profitability position employing empirical information gathered from listed manufacturers in Zimbabwe Stock Exchange (ZSE). The study reviewed the profitability status of the firms for the period between 2009 and 2013. The quick ratio and current ratio were used in the analysis to indicate liquidity. However, working capital management was indicated through accounts payables period, inventory conversion cycle, period of accounts receivables and cash conversion cycle. The outcomes demonstrated that cash conversation cycle significantly influences the liquidity position as indicated by the current ratio consequently affecting financial performance. Nevertheless, the cash conversion cycle demonstrated a weak association with liquidity as indicated by the quick ratio. The research illustrates contextual gaps show that there is a need to have a local study to have applicable and conclusive results using net profit margin measures.

Yegon, Kiprono and Willy (2014) evaluated the impact of managing working capital and financial performance of Kenyan tea enterprises. The research considered a seven-year span from 2005-2012. The investigation employed panel data econometrics to analyze the performance of six tea companies listed at NSE, Kenya. Findings established that the tea firms used conservative methods of working capital management. Results further revealed glaring challenges for the firms in developing and implementing useful collection and payment policies further affecting the profitability levels. The results collected highlighted a substantial impact of cash administration on financial performance of factories for tea listed at NSE. Contextual gaps are identified based on need to have an additional empirical analysis owing to changing environmental contexts. Methodological gaps are observed as there is a desire to expand the population targeted to include other tea firms not listed at NSE. Further, procedural gaps arise on the need to evaluate other elements of interest to the firm such as profitability in the study.

Inventory Management and Profitability

In 2013, Gull and Arshad evaluated effects of working capital administration on profitability and financial viability of organizations stated in Karachi Stock Exchange. Return on capital employed was utilized to indicate financial performance. Accounts receivable turnover and inventory turnover indicated working capital condition while the current and quick ratio demonstrated liquidity. The study relied on a sample of nineteen cement companies and reviewed the period between 2005 and 2010. Results indicated that working capital management (debtor’s management and inventory management) had a constructive impact on liquidity which in turn had a progressive influence on financial performance as indicated by profitability. Contextual gaps are acknowledged, underscoring further need to have a similar research done for the local market. Empirical gaps arise to cover other scopes of managing working capital including but not limited to cash and credit facets.

Onyango (2015) studied inventory management and its impact on liquidity and profitability through supermarkets’ case in Nairobi. Supermarkets were found to employ informal mechanisms of inventory management. Results further established that management of inventory as a facet of managing working capital impacts positively on profitability. Empirical gaps arise to contemplate an analysis of some other dimensions of working capital management such as credit management, debtors and cash management impact on profitability.

Gakii (2010) examined link between managing working capital for tea companies and their financial productivity in the county of Meru and Tharaka Nithi in Kenya. Utilizing a descriptive design, research focused on seven tea processing plants licensed by the Tea Board of Kenya (TBK) between 2011 and 2015. Pearson correlation and regression analysis and showed an undesirable relationship between financial performance and inventory conversion period hence impacting the profitability. It is evident that the scope of inventory management analysis must be expanded to encompass more than simply the conversion time hence conceptual gaps. Methodological gaps also arise on the need to explore additional facets of interest to the firm such as net profit margin in the examination.

Debt Management and Profitability

Ncube (2015) investigated the effects that managing working capital has on profitability of enterprises that are traded in Zimbabwe Stock Exchange using empirical data (ZSE). The study reviewed the profitability status of the firms for the period between 2012 and 2013. The quick ratio and current ratio were used in the analysis to indicate liquidity. However, the debtor's period demonstrated a weak association with liquidity as indicated by the quick ratio thus affecting the profitability. The investigation grants contextual gaps to locally reproduce the research for better and focused results.

Shivakumar and Thimmaiah in 2016 studied operational capital administration and its effect on profitability and liquidity of Coal India Ltd. The review period was a five-year span from 2011 to 2015. Results indicated that receivables administration as a facet of working capital management influences the liquidity which in turn impacts on profitability. Empirical gaps were noted due to a desire to spread the structure of investigation to cover more facets of working capital management including inventory and credit administration.

Kiptoo (2017) studied financial performance and operational capital management of tea processing firms in Kenya. The research employed inferential and descriptive statistics for analysis. The most significant inferential statistics utilized were Pearson's Correlation Analysis and Analysis of Variance (ANOVA). The results demonstrated that management of credit and inventory is correlated the financial productivity of tea factories. The study identified empirical gaps that conflicted with past studies, most of which indicated performance-enhancing effects. Methodological gaps also arise on the need to include other elements of interest to the firm such as profitability in the study.

Credit Management and Profitability

Makaya (2014) analyzed effects of operating capital management on profitability of company by studying Chipinge District Hospital. Working capital management was indicated by credit management (average collection period), debtor's management (typical creditors payment period) and cash management (cash conversion cycle). Results established that management of inventory, cash, debtor's and credit are significant indicators of corporate profitability. Contextual gaps arise to imitate the research locally.

Ndege (2016) assessed the link between financial productivity and working capital management of Kenyan processing companies. Study relied on inferential and descriptive statistics to undertake the analysis. The conclusion showed a constructive association between financial performance and cash management. The research identifies conceptual gaps due to a need to broaden the analysis beyond cash management. Methodological gaps are apparent, as it is necessary to consider additional aspects of a business' performance indicators, such as profitability.

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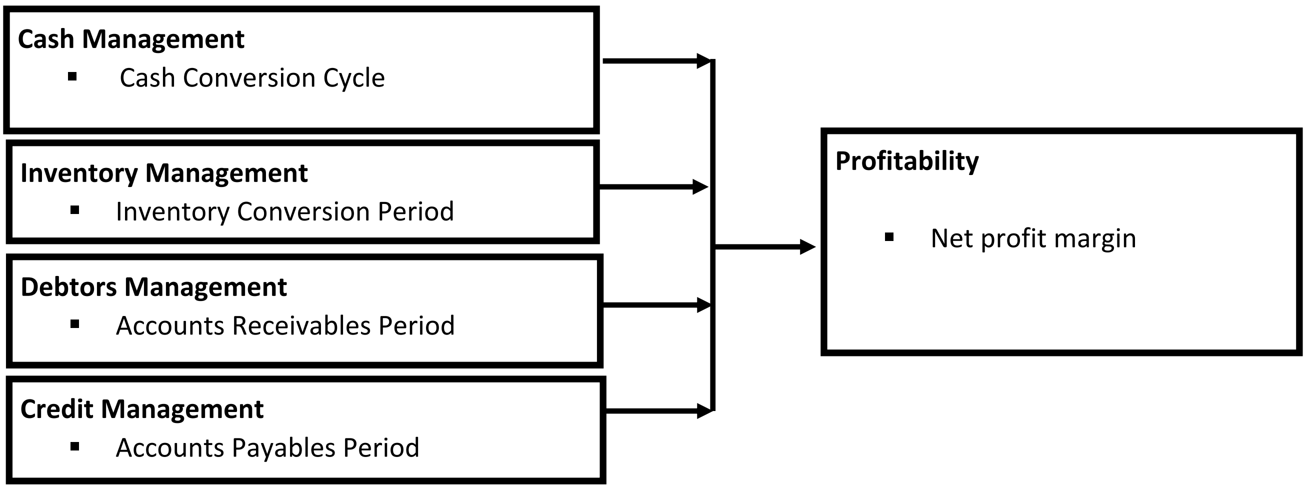
Ghimire and Abo (2013) performed a study on the Ivorian airline firms fixated on credit systems: performance and financial factors. The methodology used in the study included Cramer's value, Chi-square, cross-tabulations and descriptive statistics. Moreover, joint-plots or correspondences analysis were calculated, demonstrating the link between the utmost critical variables and bank performance. The research employed incorporated structured questionnaires that were distributed to respondents at four major airline companies. The study targeted fifty managers. However only 36 responses were acknowledged. The computed percentage indicated that firms having flexible credit systems and policies achieved sales target at 92%. The findings exposed that credit systems impacted the performance of airlines firms. However, the study fixated on air ticket sale as the primary aspect of performance. The paper identifies contextual gaps in the need to repeat research locally for better, more targeted results.

Conceptual Framework



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

Source: Researcher (2023)

METHODOLOGY

Descriptive survey plan was employed for this investigation. The population for this study comprised of all the 21 tea processing firms in Aberdare ranges region, Kenya as per demarcations by the Kenya Tea Development Agencies (2018). 63 participants made up the study's sample size. A purposive sampling was employed which identify branch manager, finance manager and procurement manager of each of the twenty-one tea processing firms as suitable respondents for the study. The research employed questionnaire to gather information from selected participants. Before administering questionnaires, the researcher obtained a permit from NACOSTI and a letter authorizing data collection from Kenyatta University. To distribute questionnaires, the drop-and-pick approach was utilized. Pre-testing and opinion of experts were employed to determine validity of research instruments. Gliem and Gliem (2003) assert that Cronbach's Alpha coefficient of at least 0.70 is justifiable in social science research undertakings. The research utilized descriptive and inferential statistics. Pearson Correlation Analysis, ANOVA and multiple regression models were employed to analyse data. Data was then entered into the Statistical Package for Social Scientists (SPSS) version 2.0 software, and the following multiple regression model generated.

RESULTS

Descriptive Analysis

Cash management

The initial objective of the research was to examine effects of management of cash on profitability of factories processing tea in the region of Aberdare Ranges in Kenya. Participants were also requested to state the degree to which cash management practices were performed in their factories. The outcomes were displayed in Table 1.

Table 1: Cash Management Practices

	1	2	3	4	5	Mean	Std. Deviation
Cash Budgeting	0.0	0.0	17.5	66.7	15.8	3.982	.582
Review of target cash balance	0.0	0.0	12.3	6.4.9	22.8	4.105	.588
Preparation of cash flow statements	0.0	0.0	7.7	64.9	28.1	4.210	.558

Source: Research Data (2023)

The respondents indicated that preparation of cash flow statements was practiced in their tea processing factory to great extent as stated by mean of 4.210(SD=0.558). These results concur with Baños, García and Martínez (2014) observation that the preparation of cash flow statements significantly impacted the performance of firms. Shown by a mean of 4.105(SD=0.588), the participants stated that review of target cash balance was practiced in their tea processing firms to great extent. Additionally, the participants stated with a mean of 3.982(SD=0.582) that cash budgeting was being practiced in their tea processing firms to great extent. The outcomes concur with Atrill and Hurley (2012) argument that cash budgeting was an important cash management strategy practices in most of the firms.

Inventory management

The second focus of this investigation was to determine effects of the management inventory on profitability of factories processing tea in the region of Aberdare Ranges Kenya.

Inventory Management

Participants were requested to state the level of effectiveness of different components of inventory management techniques in enterprises processing tea. Outcomes were displayed in Table 2.

Table 2: Inventory management

	1	2	3	4	5	Mean	Std. Deviation
Effectiveness and efficiency of management order	0.0	0.0	12.3	63.2	24.6	4.122	.599
Properly receipting and accounting for the merchandise	0.0	0.0	8.8	71.9	19.3	4.105	.523
Prudently storing merchandise	0.0	0.0	12.3	61.4	26.3	4.140	.610
Pursuing plans for loss prevention	0.0	00	14.0	54.4	31.6	4.175	.657

Source: Research Data (2023)

The participants stated to a great level that their factories had pursuit of loss prevention plans as displayed by the mean of 4.175(SD=0.657). The outcomes agree with (2019) findings that it was important for firms to have loss prevention plans. Further, the participants stated to a great extent that the factories were practicing prudent storage of merchandise as shown with a mean 4.140(SD=0.610). Additionally, the participants stated as shown by a mean of 4.122(SD=0.599) that their factories were practicing effective and efficient order management to a great extent. The outcomes concur with Niresh and Velnampy (2014) observation that firms ensure that there is an effective and efficient order management. By a mean of 4.105(SD=0.523), participants indicated that their factories practiced proper receipt and accounting for merchandise to great extent.

Debt Management

The third objective of this research was to determine effects of management of debt on profitability of factories manufacturing tea in the region of Aberdare Ranges in Kenya. Participants were also requested to state the level of concurrence with different statements on practices of managing debt in their tea processing enterprises. The outcomes were displayed in Table 3.

Table 3: Debt Management

	1	2	3	4	5	Mean	Std. Deviation
The factory is effective in bargaining for best terms of purchase to own gain	0.0	0.0	10.5	54.4	35.1	4.245	.634
The company unit effective in negotiating for amicable settlement terms	0.0	0.0	15.8	40.4	43.9	4.280	.725
The industrial unit effectively controls the time and flow of funds and other duties.	8.0	0.0	10.5	164.9	24.6	4.140	.580
The production unit places a high priority on transaction cost control.	0.0	0.0	22.8	59.6	17.5	3.947	.638

Source: Research Data (2023)

From the outcomes, participants stated as displayed by a mean of 4.280(SD=0.725) that the factories units were to a great extent effective in bargaining for friendly settlement arrangements. The findings are in with Yegon et al. (2014) claim that Kenya tea companies adopt friendly settlement arrangements in the management of debts. The participants stated that the factories were effective in bargaining for best purchase terms to own advantage to a great extent as displayed by a mean of 4.245(SD=0.634). The outcomes agree with Gakii (2010) observation that tea processing firms in Meru and Tharaka Nithi counties were bargaining for best purchase terms as a debt management strategy. Additionally, the participants stated as shown by a mean of 4.140(SD=0.580) that the industrial unit effectively controlled the time and flow of funds and other duties to great extent. By a mean of 3.947(SD=0.638), the participants indicated that the factories units pay close attention to the control of transaction cost to a great extent.

Credit Management

The fourth aim of this research was to evaluate the impacts of management of credit on profitability of factories manufacturing tea in the region of Aberdare Ranges in Kenya. Participants were requested to state the level which different debt management actions were adopted in the tea processing firms. The outcomes were displayed in Table 4.

Table 4: Credit management

	1	2	3	4	5	Mean	Std. Deviation
Review of collections policy	0.0	0.0	15.8	56.1	28.1	4.122	.656
Review of credit guidelines for clients	0.0	0.0	17.5	57.9	24.6	4.070	.650
Review and control of bad debts	0.0	0.0	7.0	52.6	40.4	4.333	.607

Source: Research Data (2023)

The participants stated that the factories practice review and control of bad debts to a great extent as displayed by a mean of 4.333(SD=0.607). The outcomes concur with Addaney, Awuah and Afriyie (2016) observation that firms make use of review and control of bad debts as a strategy for credit management. With a mean of 4.122(SD=0.656), participants indicated that factories practice review of collections policies to great extent. The outcomes were concurrent with Gakii (2010) argument that tea processing firms were reviewing of collections policies. Additionally, the participants stated as shown by a mean of 4.070(SD=0.650) that the factories practice review of credit guidelines for clients to great extent. The findings agreed with Kiptoo (2017) claim that most of the tea processing firms were reviewing credit guidelines for clients on annual basis.

Profitability

Dependent variable of the research was profitability of tea processing firms in the Aberdare Ranges region. Participants were requested to rate how much they concur with certain assertions on profitability in their tea processing firms. Outcomes were displayed in Table 5.

Table 5: Profitability

	1	2	3	4	5	Mean	Std. Deviation
The organisation strikes a balance between the requirement for financial reserves and the pursuit of profitable investment possibilities	7.0	71.9	8.8	8.8	3.5	2.298	.865
The company has enough amounts of liquid assets on hand, including cash, marketable securities, shares, debtors, and prepayments.	22.8	42.1	17.5	7.0	10.5	2.403	1.222
The business has complex policies in place for cost control that guarantee the accomplishment of highest profitability.	31.6	40.4	5.3	10.5	12.3	2.315	1.351
The enterprise has been successful in keeping strong position of profitability as displayed by ratios of profitability (gross margin of profit, income from investment, income from asset, and income from equity ratios).	17.5	52.6	10.5	14.0	5.3	2.368	1.095

Source: Research Data (2023)

The participants stated that their The company has enough amounts of liquid assets on hand, including cash, marketable securities, shares, debtors, and prepayments to lower extent as displayed with a mean 2.403(SD=1.222). Additionally, the participants stated as shown by a mean of 2.368(SD=1.095) that business have been successful in keeping a strong position of profitability as shown by ratios of profitability (gross margin of profit, income from investment, income from asset, and income from equity ratios). These findings are contrary to the Gnanasoorivar and Mochiloy (2014) assertion that one of the key factors in determining how effectively an organization performs is profitability. With a mean of 2.315(SD=1.351) the participants stated that the business has complex policies in place for cost control that guarantee the accomplishment of maximum profitability to low extent. The participants stated that organisations strike a balance between requirement for financial reserves and the pursuit of profitable investment possibilities to lower extent as displayed by the mean of 2.298(SD=0.865).

Diagnostic Tests

Diagnostic tests are employed to determine validity of model of regression and to identify potential problems or violations of the underlying assumptions. Diagnostic tests in the research will involve test for multicollinearity, Heteroskedasticity, linearity, and normality.

Multicollinearity Test

Multicollinearity is a statistical phenomenon that occurs when there are high correlations between predictor variables in a regression model. A commonly used threshold is a VIF value of 5 or 10, above which multicollinearity may be a concern. The outcomes were displayed in Table 6.

Table 6: Collinearity Statistics

	Tolerance	VIF
Cash management	.683	1.465
Inventory management	.845	1.184
Debt management	.616	1.623
Credit management	.643	1.556

Source: Research Data (2023)

VIF values displayed in Table 6: disclose that, there is no multicollinearity within independent research variables, since all values were not more than 10. Cash management was having a VIF of 1.465, inventory management was having VIF of 1.184, debt management was having a VIF of 1.623 and credit management was having a VIF of 1,556. The outcomes indicated that there was no multicollinearity between the variables.

Heteroscedasticity Test

Heteroscedasticity involves the situation where variability of the term of error in a model of regression is not equal across all levels of independent variables. Breusch-Pagan test, which was used in this study, is a statistical test used to formally assess heteroscedasticity. Breusch-Pagan test allows us to test null hypothesis that error variance is the same (homoscedastic) against alternative hypothesis that error variance is not equal (heteroscedastic).

Table 7: Breusch-Pagan test for Heteroscedasticity

Ho: Constant variance	
Variables: Fitted with values of the Organizational performance	
Chi2 (1)	0.85
Prob>chi2	0.3564

Source: Research Data (2023)

Correlation Analysis

Pearson product-moment correlation coefficient was employed to determine the strength of connection between independent variables (management of cash, inventory, debt and credit) and dependent variable (profitability). The outcomes are displayed in Table 8.

Table 8: Correlation Coefficients

		Profitability	Cash management	Inventory management	Debt management	Credit management
Profitability	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	57				
Cash management	Pearson Correlation	.602**	1			
	Sig. (2-tailed)	.000				
	N	57	57			
Inventory management	Pearson Correlation	.581**	.062	1		
	Sig. (2-tailed)	.000	.161			
	N	57	57	57		
Debt management	Pearson Correlation	.704**	.107	.152	1	
	Sig. (2-tailed)	.000	.100	.101		
	N	57	57	57	57	
Credit management	Pearson Correlation	.715**	.098	.062	.098	1
	Sig. (2-tailed)	.000	.090	.161	.090	
	N	57	57	57	57	57

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

Source: Research Data (2023)

As shown in Table 8, positive and significant link exist between cash management and profitability of factories processing tea in the region of Aberdare Ranges in Kenya (r=0.602, p-value =0.000). The p-value was lower than the level of significance of 0.05 hence the connection between cash management and profitability was significant. Furthermore, the outcomes established that there exists a positive and significant link between management of inventory and profitability of tea processing companies in the Aberdare Ranges region, Kenya (r=0.581, p-value =0.000). The p-value was lower than the level of significance of 0.05 therefore the connection between inventory management and profitability was important. The findings are consistent with those of Gull and Arshad (2013) that the management of inventory had an important association with financial performance of companies as indicated by profitability.

The investigation outcomes showed an affirmative and important link between management of debt and the profitability of factories processing tea in the region of Aberdare Ranges in Kenya (r=0.704, p-value =0.000). The p-value was lower than the level of significance of 0.05 therefore the link between debt management and profitability was significant. These outcomes concur with Ncube (2015) observation that debt management had an important relationship with profitability of companies that are traded in Zimbabwe Stock Exchange. Additionally, the results showed a favourable and strong connection between credit management and the profitability of factories processing tea in the region of Aberdare Ranges in Kenya (r=0.715, p-value =0.000). The p-value was lower than the level of significance of 0.05 therefore connection between credit management and profitability was important. The outcomes concur with Makaya (2014) observation that management of credit was having a significant link with corporate profitability.

Inferential Analysis

In the research, multiple regression analysis was adopted to examine the link between independent variables (management of cash, inventory, debt and credit) and dependent variable (profitability of factories processing tea).

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854[a]	0.729	0.718	0.26089

a. Predictors: (Constant), Cash Management, Inventory Management, Debt Management and Credit Management

Source: Research Data (2023)

As depicted in Table 9, adjusted R squared for connection between management of working capital and profitability of factories processing tea was 0.718. This denotes that 71.8% of variation of profitability is elaborated by management of working capital (cash, inventory, debt and credit). As such, 28.2% of the profitability of tea processing firms can be elaborated by other elements not considered in this research.

Table 10: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.642	4	8.661	118.179	.000[b]
	Residual	3.884	53	0.073		
	Total	38.526	57			

a. Dependent Variable: Profitability of tea processing firms

b. Predictors: (Constant), Cash Management, Inventory Management, Debt Management and Credit Management

Source: Research Data (2023)

ANOVA (Analysis of Variance) is often employed to examine overall significance of regression model and identify if independent variables collectively have an important effect on dependent variable. From findings, F calculated was 90.517 and F-critical was 2.46. Since F calculated was higher than F critical and p-value (0.000) was lower than the level of significance (0.05), the model was regarded as excellent fit for information. This demonstrates that the model could be employed for predicting the effects of managing working capital on the profitability of factories processing tea in the region of Aberdare Ranges in Kenya

Table 11: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	0.562	0.127		4.425	0.000
	Cash management	0.364	0.145	0.3260	2.510	0.021
1	Inventory management	0.222	0.101	0.2000	2.198	0.034
	Debt Management	0.378	0.137	0.3530	2.759	0.001
	Credit Management	0.464	0.121	0.4180	3.835	0.000

a. Dependent Variable: Profitability of tea processing firms

Source: Research Data (2023)

Regression equation was;

$$Y = 0.562 + 0.364X_1 + 0.222X_2 + 0.378X_3 + 0.464X_4 + \varepsilon$$

The research outcomes shown that change management had an affirmative and important effect on profitability of factories processing tea in the region of Aberdare Ranges in Kenya (β_1=0.364, p-value= 0.021). The effect of change management on profitability of factories processing tea was regarded as important since p-value (0.021) was lower than the level of significance of 0.05. Furthermore, the outcomes demonstrated that management inventory had an affirmative and important effect on profitability of factories processing tea in the region of Aberdare Ranges in Kenya (β_2=0.222, p-value=0.034). The impact of managing inventory on profitability of factories processing tea was regarded as important since p-value (0.034) was lower than the level of significance of 0.05.

Furthermore, the outcomes demonstrated that management of debt had an affirmative and important effect on profitability of factories processing tea in the region of Aberdare Ranges in Kenya (β_3= 0.378, p=0.001). The impact of managing debt on profitability of factories processing tea was regarded as important since the p-value (0.001) was lower than the level of significance of 0.05. Furthermore, the research discovered that credit management had an affirmative and important effect on profitability of factories processing tea in the region of Aberdare Ranges in Kenya (β_4=0.464, p-value= 0.000). The impact of managing credit on profitability of factories processing tea was regarded as important since the p-value (0.000) was lower than the level of significance of 0.05.

SUMMARY

Findings of the research indicated that cash management positively and significantly impacted on gain of enterprises processing tea in the region of Aberdare Ranges in Kenya. Correlation findings indicated that there is an affirmative and important link between cash management and gain of factories processing tea in the region of Aberdare Ranges in Kenya. The results show that firms that effectively managed their cash flows were more profitable than those that did not. In addition, the study found that cash budgeting, review of cash targets and preparations of cash flows had an influence on the productivity of the tea factories in the Aberdares region. Additionally, effective cash management enables firms to minimize their costs of finance and maximize their liquidity, which leads to increased profitability.

Research also discovered that inventory management significantly and positively impacted on the gain of tea processing enterprises in the region. Correlation outcomes revealed that there is an affirmative and important link between inventory management and gain of factories processing tea in the region of Aberdare Ranges in Kenya. The research also revealed that inventory management practices such as appropriate receipting and accounting for goods, careful storage of goods, and the development of loss prevention strategies all have a favorable impact on the profitability ratings of the region's tea processing companies. Effective management of inventory enables firms to reduce their storage costs, minimize wastage, and improve customer satisfaction, which leads to increased profitability.

The research established that managing debt has an affirmative and an important influence on tea processing companies' profitability in Aberdares region. Correlation findings revealed that there is an affirmative and important link between debt management and gain of factories processing tea in the region of Aberdare Ranges in Kenya. The findings indicated that bargaining for best purchase terms, bargaining for friendly settlement arrangements, efficient management of the flow and timing of payments and other obligations as well as paying close attention to the control of transaction cost had an effect on tea processing firms in Aberdares region. Bargaining for the best purchase terms is an important skill for businesses to optimize their procurement processes and achieve favorable terms and conditions from suppliers.

The research discovered that managing credit has an affirmative and important impact on the profitability of the tea processing enterprises in Aberdares region. Correlation outcomes revealed that there is an affirmative and important link between credit management and gain of factories processing tea in the region of Aberdare Ranges in Kenya. The study found that reviewing the collections policy, reviewing the client credit guidelines, and reviewing and controlling bad debts all had an impact on the tea processing companies' profitability in Aberdares region. The review of credit guidelines in trade credit is of significant importance for businesses. Reviewing credit guidelines helps businesses assess and mitigate the risk associated with extending credit to customers. By establishing clear guidelines, businesses can evaluate the creditworthiness of potential customers and set appropriate credit limits. This reduces the risk of non-payment or late payments, minimizing the potential impact on cash flow and profitability.

CONCLUSION

The initial objective of this investigation was to examine effects of cash management on profitability. Research established that management of cash has an affirmative and important impact on gain of companies processing tea in the region of Aberdares of Kenya. The investigation concludes that an improvement in cash management (cycle of cash conversion) enhances profitability. A shorter cash conversion cycle generally indicates that a factory is effectively controlling its working capital and converting inventory into sales and subsequently into cash more quickly. A longer cash conversion cycle can strain a company's liquidity and require additional financing or borrowing, which can increase costs and potentially impact profitability.

Second aim of research was to assess the effect of inventory management on profitability. The research discovered that managing inventory had an important and affirmative impact on the gain of tea processing companies in Aberdares region. The investigation concludes that an improvement in inventory management (inventory conversion period) leads to an improvement in profitability. Holding inventory incurs costs such as storage, insurance, and depreciation. If a company has a longer inventory conversion period, it implies that inventory is sitting idle for a longer time, leading to increased holding costs. These costs can reduce profitability by eating into profit margins.

The third aim of research was to determine effects of management of debt on profitability. Research revealed that debt management has an affirmative and important impact on gain of industries processing tea in Aberdares region in Kenya. Investigation concludes that an improvement in debt management (accounts receivables period) leads to an improvement in profitability. The period of accounts receivable represents the duration taken by an enterprise to collect payment from its clients. A shorter accounts receivable time means that money is being received faster, improving the company's cash flow.

Fourth aim of research was to assess the effects of managing credit on profitability. The research revealed that credit management has an affirmative and important impact on profitability of companies processing tea in Aberdares region. Therefore, the investigation concludes that an improvement in credit management (accounts payables period) leads to an improvement in profitability. A longer accounts payable period means that a company is taking more time to pay its suppliers. This effectively extends the time taken for the industry to convert its purchases into money outflows. By maximizing the accounts payable period without negatively affecting supplier relationships, a company can optimize its working capital, potentially improving profitability.

RECOMMENDATIONS

The research found that cash management has an affirmative and important impact on profitability of industries processing tea in Aberdares region. The research recommends that management of tea processing companies should utilize cash budgeting, examine the desired cash balance, and create statements for cash flow to improve the profitability of their firms. The research also discovered that inventory management significantly and positively affected the profitability of tea processing companies in the Aberdares region. The research recommends that tea processing industries' management should adopt effective and efficient order management as a strategy for inventory management so as to improve profitability. By implementing effective order management strategies, businesses can optimize inventory levels, minimize stock outs, and improve customer satisfaction.

The research further indicated that debt management has an affirmative and important impact on profitability of industries processing tea in Aberdares region. The research recommends that management of tea processing firms should bargain for friendly settlement arrangements. Before entering into negotiations, they should gather all relevant information and facts about the debts. The research further discovered that credit management has an affirmative and important impact on the profitability of the tea processing companies in Aberdares region of Kenya. The investigation recommends that the management of tea processing companies should review their firms' collection policies, review credit guidelines for clients as well as review and control bad debts.

The research discovered that management of working capital has an influence on tea processing companies' profitability. Therefore, the research recommends that Kenyan government and law makers should develop policies geared towards improving cash management, debt management and credit management in tea processing firms in Kenya. Policies should be developed to ensure regular review and evaluation of cash management policies and processes to identify areas for improvement. The government of Kenya should develop a comprehensive debt management policy that outlines guidelines and procedures for managing debt. This policy should define acceptable debt levels, specify the types of debt instruments to be used and establish criteria for evaluating borrowing options. The government should also develop a comprehensive trade credit policy that outlines guidelines and procedures that tea processing firms should follow when advancing trade credit. This policy should define credit terms, credit limits, credit evaluation criteria, and the process for managing trade credit relationships.

The tradeoff theory suggests that trade-off exists between liquidity and profitability. It implies that enterprises need to find a balance between preserving enough operating capital for efficient operations and maximizing profitability. Instead of solely focusing on trade-off between liquidity and profitability, analysis in trade off theory should be expanded to include other relevant variables that can impact the relationship. For example, you can incorporate factors like firm size, leverage, industry characteristics, and macroeconomic variables to give a more thorough comprehension of the trade-off.

To improve the application of the Liquidity Preference Theory in the investigations of the influence of managing working capital on profitability, researchers should consider exploring the liquidity preferences of tea processing firms by examining their cash holding behavior and the factors that influence their decision-making process. Investigate the motives behind maintaining higher or lower levels of liquidity and how it relates to profitability. Factors such as firm size, growth opportunities, industry characteristics, and risk preferences may affect liquidity preferences.

Areas for further Research

The research found that some of the tea processing enterprises did not have surplus cash investment guides or plans. The research therefore suggests more investigations on the factors affecting the adoption of surplus cash investment guides or plans in factories processing tea in the region of Aberdare Ranges in Kenya. The research suggests more investigations on management of working capital effect on profitability of enterprises processing tea in other parts of Kenya including Kisii, Narok, Bomet and Nyamira Counties. The research found that management of working capital could explain 72.9% of the profitability of factories processing tea in the region of Aberdare Ranges in Kenya. The research thus suggests further investigation on other elements influencing the profitability of factories processing tea in the region of Aberdare Ranges in Kenya.

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