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ABSTRACT

The objective of this study was to assess how liquidity management practices influence the performance of horticultural firms. The research was grounded in the liquidity preference theory, providing the theoretical framework for the investigation. Employing a descriptive survey method, the study concentrated on thirty-five horticulture businesses in Laikipia County. The targeted participants included Accountants, Customer Relation officers, Human Resource Officers and Production Managers from these horticulture firms. The researcher conducted a census involving 140 participants within the population of interest. Primary data were gathered through questionnaires, and a pilot study was executed to assess reliability using the Cronbach alpha coefficient. Descriptive analysis techniques such as generating frequencies, mean and standard deviation were applied. Linearity was tested using Pearson Correlation, the normality of data distribution was examined through a histogram, multi-collinearity was assessed using the Variance Inflation Factor, and independence was verified using the Durbin Watson (d) statistic. These tests were conducted before subjecting the data to bivariate linear regression. The findings of the linear regression analysis revealed a positive and significant impact of liquidity management practices on performance of horticultural firms. In light of these results, the study proposes that effective liquidity management practices be implemented to ensure timely fulfillment of financial obligations, thereby enhancing the overall performance of horticultural firms.

Key Words: *Liquidity Management Practices, Performance and Horticultural Firms*

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INTRODUCTION

Large-scale cultivation of perishable crops including fruits, vegetables, and flowers is known as "horticultural farming," a subset of the broader agribusiness industry (Tonui & Kimani, 2016). In order to have a clear picture of how well an organization is doing financially, it is necessary to quantify performance (Campbell, 2012). Despite severe water shortages, long-term soil degradation, and arid climate, Israel's horticultural output has increased at a faster pace than anywhere else in the world, according to a study from the Organization for Economic Co-operation and Development (OECD, 2017). This remarkable increase in agricultural yields and productivity over the years in Israeli has essentially redefined the potential of dry-land agriculture (Israel's Agricultural Atlas, 2016). The second United Nation's sustainable development goal (SDG) endeavors to eliminate hunger by the year 2030 and provide universal access to safe, nutritious, and sufficient food throughout the year, with a particular focus on those experiencing poverty and vulnerability (Keatinge et al., 2016).

Broeck and Maertens, (2016) while undertaking a study on Horticultural exports and food security indicated that production and exports of horticultural products from developing countries have tremendously increased especially in Latin-America where horticulture export has more than tripled in the last decade. In addition, the research showed that horticultural output in India has risen over the last several years, with both the total area devoted to horticulture and yearly output increasing at a rate of 2.6% each year. More than half of the African population depends on agriculture, which accounts for roughly a third of the sub-Saharan economy despite the global trend toward urbanization (Rosenthal, Jonathan, 2017). Increased incorporation of smallholder farmers into the horticulture global value chain has been credited by Goger, Hull, and Barrientos (2014) for the expansion of Africa's horticultural industry and exports.

The horticulture industry in Kenya is a major contributor to the country's economy, accounting for about 24% of the country's Gross Domestic Product (GDP). It is a major source of income for small-scale farmers, providing employment to over 1.5 million people, and is the second-largest source of foreign exchange earnings for Kenya (Ministry of Agriculture, Livestock, Fisheries and Co-operatives (MOA, 2020). The industry is a major exporter of fresh horticultural produce, with over 90% of the fresh produce being exported to Europe, Asia, and the United States. The industry is also a major supplier of dried and preserved horticultural products to the domestic market.

Kenya's Vision 2030 is a comprehensive strategic framework designed to facilitate the socioeconomic transformation of the nation, positioning it as a burgeoning industrialised entity with a middle-income status, while concurrently ensuring an enhanced standard of living for its whole populace. The horticulture industry is one of the key sectors identified in Vision 2030 as having significant potential to contribute to the country's economic growth and development (MoA, 2017). In addition, the big 4 agenda calls for more focus and investment in the horticulture industry. The Big 4 Agenda is a government initiative in Kenya that focuses on four key areas: agriculture, food security and nutrition, manufacturing, and universal healthcare. The goal of the initiative is to transform Kenya into a prosperous middle-income country within 10 years. One of the goals of the agenda is a 48% increase in Agriculture sector contribution to GDP (Republic of Kenya, 2019).

A company's liquidity refers to its ability to pay for products and services as well as its existing and future debts. In order to keep its cash reserves and associated components at an optimal level, a company engages in what is known as "liquidity management" (Abiola et al., 2021). In order to satisfy their day-to-day obligations, managers of small businesses practise something called "liquidity management," which entails careful planning and control of the company's cash flow (Ekanem, 2010).

The goal of liquidity and liquid asset management is to maximise profits by balancing the benefits of holding on to cash against the costs of investing any spare funds. (Kontu & Mihanovi, 2019) The health and longevity of a small company is most directly influenced by the quality of its liquidity management, making it one of the most important factors in determining that firm's success. However, research by Mayanja and Mayanja (2020) suggests that firms in developing nations have difficulty managing their liquidity, which has a negative impact on profitability and ultimately makes them less resilient to risk. These companies are unable to expand and take advantage of economies of size and scope as a result of a lack of liquidity and poor management.

Research Problem

More than 20% of Kenya's foreign profits come from the horticulture sector, which also plays a significant role in food security, job development, and reducing poverty (Agricultural Sector Coordination Unit, ASCU, 2017). Nevertheless, 96% of total horticultural produce—that is, fruits and vegetables—is eaten domestically, with just 4% being exported (Kenya Horticulture Competitiveness Project [KHCP], 2022). Kenya exported around 314 thousand metric tonnes of fresh horticulture goods in 2020. When compared to the prior year, the volume dropped by 4.5%. Kenya exported 45% of its horticultural products to the European Union in 2020; these products were largely bought there as Asian vegetables, French beans, snow peas, and cut flowers. Farming in Laikipia County has expanded to become the county's main source of income and an integral part of the county's connection to international trade. As the business expands, it will have both direct and indirect effects on local economies (County government of Laikipia, 2022).

Despite various intervention in supporting horticultural farming, available data demonstrates suggests that the sector is struggling with performance issues. KNBS (2022) reports that the export value of horticultural produce declined to KSh26 billion in the first quarter of 2022 from KSh46 the previous year. Returns from vegetables fell by KSh6.1 billion to KSh2.2 billion. In Laikipia County, some horticultural firms have closed down due to loss of business (County government of Laikipia, 2022). In addition, no new firms have come up and the existing ones are not growing. This suggests that there are issues with financial performance.

Multiple investigations have been conducted in the field of horticulture. Recent studies include Meme (2015), Mukatia et al. (2018), Mumbi (2021), Njuguna (2018) Tonui's (2016) and Vanhuyse (2016). However, the vast majority of these studies have been carried out in the field of agriculture. Majority of these studies have not assessed the impact of liquidity management practices on performance of horticultural firms. This research addressed that void by analyzing the impact of liquidity management practices on performance of horticultural firms in Laikipia County's.

Objective of the Study

The specific objective of the study was to evaluate the impact of liquidity management practices on performance of horticultural firms in Laikipia County

*Null hypotheses were formulated and tested at a significance level of 0.05.

Significance of the Study

Agriculture is the mainstay of every economy, since it produces the staple foods humans need and the raw materials for modern industry. A predicted 9.7 billion people will need to be fed by 2050, and agricultural expansion is one of the most effective means of doing so, according to the World Bank (2022). About 33% of Kenya's GDP comes from agriculture, making it an essential part of the country's economy (USAID, 2022). The income of rural residents might be increased thanks to the special function horticultural crops play in a country's economy. Food insecurity, malnutrition, and obesity are three interconnected problems, and the horticulture value chain may help solve all three. Many horticulture crops have a high economic value, which means they may help boost

the economy. Smallholder productivity is poor, despite the horticulture sector's significant contribution to Kenya's economy. Therefore, it is necessary to investigate the impact of liquidity management practices on performance of horticultural firms in Laikipia County.

LITERATURE REVIEW

Theoretical Review

According to Liquidity Preference Theory, the function of interest rates in terms of money supply and demand was the subject of John Maynard Keynes's liquidity preference theory. The interest rate, in this perspective, determines how much it will cost to borrow money. When money is tight, it's not because someone wants a loan, but rather so they may continue to have choices (Culham, 2020; De Carvalho, 2015). According to this hypothesis, cash is the most widely recognised liquid asset, and highly liquid assets may be quickly converted into cash at market value. According to Keynes, there are three main drivers of the need for money (liquidity): transaction (everyday, routine expenses), precautionary (emergency, unforeseen expenses), and speculative (better to keep liquid money on hand in the event the price of illiquid assets like bonds drops in the future) (Missaglia & Sanchez, 2020).

The term "liquidity" pertains to the capacity of a firm to fulfil its existing and forthcoming financial obligations, including debts and other commitments related to goods and services (Missaglia & Sanchez, 2020). According to Almeida (2021), unanticipated business risks may quickly disrupt your firm and, in the worst scenario, create bankruptcy if you don't have a clear picture of your cash flow. Whether it's a stock trader reducing his or her exposure to an asset's price fluctuation or a bank supplying a customer's immediate cash needs, liquidity management is the process of reducing the risk that any of these events may have a negative impact on the (An et al., 2016). Liquidity management, in its simplest form, refers to the practise of ensuring that sufficient funds are accessible to meet immediate obligations such as the purchase of products and services, the settlement of debts, and the financing of new ventures (Cheruyot, 2019; Moussa, 2018; Somathilake and Pathirawasam, 2020; Tonui, 2016).

The assumption that the employment rate is constant is one of the greatest flaws in this hypothesis. Actually, the employment rate fluctuates and is not stable (De Carvalho, 2015). The second critique of this idea is that it assumes a certain level of income. One of the primary problems with the liquidity preference theory is the assumption that the employment rate is constant. In actuality, the employment rate is not constant; it varies often. The second criticism of the idea is that it assumes a certain level of revenue (Somathilake & Pathirawasam, 2020).

Empirical Review

Liquidity management is the process of managing a company's cash flow, cash and other liquid assets by monitoring cash in and outflows. It involves tracking and managing incoming and outgoing payments, such as accounts receivable and payable, to ensure that the business has enough cash available to meet its obligations (Almeida, 2021). It is also necessary to anticipate cash-flow needs and forecast cash shortage or surplus. Liquidity management is essential for smooth operations and to prevent a shortage of cash and liquidity crisis (Bassey *et al.*, 2016). The liquidity management practices have a significant impact on their performance. Proper liquidity management allows business to maintain a healthy level of assets and liabilities, which in turn leads to improved performance. In addition, liquidity management helps business avoid financial crises and ensures that they are able to meet their obligations to depositors and other creditors (Brown & Petersen, 2015; Schrimpf *et al.*, 2021).

Akgün and Memiş (2021) findings demonstrated that, across all EU nations, current ratio estimates of liquidity have a statistically significant influence on ROA metrics of company success. The ROA was dramatically impacted negatively by the financial

crisis of 2008. Additionally, the research on financial inclusion reveals a link between poor company performance in the EU and other high-performer nations and gross working capital. Somathilake and Pathirawasam's (2020) research attempted to learn how SMEs in Sri Lanka's financial management methods affected their productivity. Regression findings indicated that SMEs in NCP benefited significantly from working capital management methods. The purpose of Cheruyot's (2019) research was to analyse the impact of working capital management on the productivity of small and medium-sized manufacturing businesses in Kericho County, Kenya. Using Pearson's r, we find that good working capital management methods are positively associated with increased productivity (r=0.716). Regression analysis was also performed, with the same good result.

In a study conducted among Egyptian industrial enterprises, Moussa (2018) found that effective working capital management is positively correlated with company profitability. According to the author, stock markets in developing countries are not making the most of their WCM's potential for efficiency. Similarly, Nguyen and Nguyen (2018) found evidence of a positive link between the two in the case of Vietnamese listed enterprises' performance from 2008 to 2014. According to studies conducted by Amponsah, Kwatiah, and Asiamah, there is a favourable correlation between various forms of working capital and profit for publicly traded Ghanaian manufacturing enterprises (2020). Additionally, Goncalves et al. (2018) demonstrate, using an example of UK unlisted enterprises between 2006 and 2014, that WCM efficiency enhances profitability. Financial success of publicly traded US manufacturing enterprises is shown to be positively correlated with the quality of their working capital management (Lyngstadaas, 2020).

The impact of liquidity on the expansion of horticulture businesses in Nakuru County was studied by Tonui (2016). The research found that the liquidity of horticultural businesses in Nakuru County was affected by the amount of working capital invested. It was thought that a lot of money had been put into working capital, which may affect the company's liquidity. It was unclear, however, whether there was always enough money in the company to run its activities and if short-term loans were paid on time. Additionally, respondents did not care if the business converted quickly or that it had a small inventory. The correlation findings suggested a modest but favourable and statistically significant connection between liquidity and the development of the business. Othuon et al. (2021) demonstrated a negative relationship between working capital management (as shown by average payment time and current ratio). Thus, it became clear that in order to raise ROA, coffee wet mills needed to reduce APP and CR.

A study by Nyamai (2018) found that since they are not being strictly adhered to, working capital management practises have not been favourably affecting the performance of fruit farming. In spite of the fact that mango trees need more cash to operate, this is the case. Unfortunately, not all farmers are steadfast in their commitment to sound cash flow management. Unfortunately, few mango growers have received enough education or training in the administration of their farms' operating capital. What's more, the vast majority of them have no way of obtaining short-term loans from financial institutions, which suggests they get insufficient monetary assistance from those very same organizations. They have no financial foundation other than merry-go-rounds and table banking.

METHODOLOGY

A descriptive survey method was used for this investigation. A scientific fact-finding inquiry, a descriptive survey describes the current condition of circumstances (Kothari, 2004). The researcher may collect data from a large number of instances in a short amount of time using a descriptive survey design (Mugenda & Mugenda, 2003). The target population for this study was 35 horticultural firms in Laikipia County. The accountants, customer

relation officers, human resource officers and production managers in the horticultural firms were the respondents in this study.

Questionnaires were used in collecting primary data. Mugenda and Mugenda (2012) contend that a questionnaire is advantageous in data collection in that it is cost effective and easy to administer.

Linear regression analysis was used to depict the model where Performance of horticultural firms was expressed as a function of Liquidity Management Practices as shown

$Y= \beta_0 + \beta_1 X_1 + \varepsilon$

Where:

Y = Performance of horticultural firms

X_1 = Liquidity Management Practices

RESULTS AND FINDINGS

a) Descriptive statistics for Liquidity Management Practices

Table 1 presents the responses from financing practices statements that were analyzed using descriptive statistical analysis. The results show that majority of the respondents 85.4% agreed that the firm prepares a cash budget, a high percentage 80.4% agreed that the firm has debtors' management policy, most of the respondents 77.3% agreed that the firm has an elaborate process of making payments to suppliers, 69.9% agreed that the firm has the ability to meet its current liabilities when they fall due while 66.7% indicated that the firm generate enough revenue to fund its operations. The indication is that horticultural firms are sustainable since they are able to generate revenue to meet operating expenses. The findings of the study that horticultural firms are able to manage working capital point out the chances of succeeding since the firms will have ability to pay its present and future debts and other commitments. According to Missaglia and Sanchez (2020), liquidity refers to a company's ability to pay its present and future debts and other commitments. In addition, liquidity management helps business avoid financial crises and ensures that they are able to meet their obligations to depositors and other creditors (Brown & Petersen, 2015; Schrimpf *et al.*, 2021).

Table 1: Descriptive statistics for Liquidity Management Practices

	SD	A	N	A	SA	Mean	Std Dev
The firm prepares a cash budget	0.0%	0.0%	14.6%	18.7%	66.7%	4.5203	.7394
The firm has debtors management policy	0.0%	5.7%	13.8%	46.3%	34.1%	4.0894	.8397
The firm has an elaborate process of making payments to suppliers	0.0%	0.8%	22.0%	48.0%	29.3%	4.0569	.7389
The firm has the ability to meet its current liabilities when they fall due	0.0%	8.1%	22.0%	46.3%	23.6%	3.8537	.8748
The firm generate enough revenue to fund its operations	0.0%	10.6%	22.8%	56.9%	9.8%	3.6585	.7978

b) Linearity Test

Table 2 presents linearity test results generated using Pearson's correlation (r) to assess linearity of data set. The result indicates that there is a significance positive linear relationship between liquidity management practices at p value <0.05 significance level.

Table 2: results of Pearson's correlation Linearity Test

Independent variables	Test	Performance	Conclusion
Liquidity Management Practices	Pearson Correlation	.529**	Linear
	Sig. (2-tailed)	.000	
	N	123	

c) Test of Independence

Table 3 present the results for Test of Independence conducted using Durbin-Watson d-statistic to assess the presence of autocorrelation. According to Garson (2012), Durbin-Watson d-statistic should be within a range of 1.5 and 2.5. The result shows that all independent variables had a coefficient ranging between 1.74 and 2.03 hence it was concluded that there was no autocorrelation.

Table 3: Coefficient of Durbin-Watson d-statistics

Predictor variable	Durbin-Watson statistics
Liquidity management practices	1.742

d) Bivariate Linear Regression Analysis

Bivariate linear regression analysis was conducted to empirically establish the relationship between liquidity management practices and performance of horticultural firms in Laikipia County. This was performed using the field data and the results interpreted according to the correlation coefficient (R values), coefficient of determination (R^2 values), the coefficient beta values and F ratio at the 95% level of significance. The following hypothesis was formulated and tested.

$H0_1$: There is no statistically significant relationship between liquidity management and performance of horticultural firms in Laikipia County. Explanation and interpretation of the findings are given.

Table 4: Model Fitness for Liquidity Management Practices and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.529[a]	.280	.274	.39670

a. Predictors: (Constant), Liquidity Management Practices

The model summary results in Table 4 indicate that there is a moderate correlation R=0.529 between liquidity management practices and performance of horticultural firms. R^2 =0.280 implied that liquidity management practices explain 28.0% of the changes in performance of horticultural firms while the remaining percentage can be explained by other variables.

Table 5: Analysis of Variances for Liquidity Management Practices and Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.408	1	7.408	47.073	.000[b]
	Residual	19.041	121	.157		
	Total	26.449	122			

a. Dependent Variable: Performance

b. Predictors: (Constant), Liquidity Management Practices

The ANOVA for liquidity management practices and performance results as presented in Table 5 shows F statistic of 47.073 at P value of 0.000. The indication that this linear model is fit for performance of horticultural firms.

Table 6: Regression Coefficients for Liquidity Management Practices and Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.744	.267		6.522	.000
	Liquidity Management Practices	.451	.066	.529	6.861	.000

a. Dependent Variable: Performance

The results of bivariate regression model equation as presented in Table 6 indicated that a unit change in liquidity management practices will results to 0.451 changes in performance of horticultural firms. Therefore, the relationship between liquidity management practices and performance of horticultural firms was $Y= 1.744 + 0.451X_2$

The results of the research show that, with $\beta_2=0.451$ at P value 0.000, liquidity management strategies had a favorable and statistically significant impact on horticultural enterprises' performance. Based on this, the null hypothesis states that, when taken into account separately, there is no statistically significant correlation between the performance of horticultural enterprises in Laikipia County and liquidity management.

The finding of the study concurs with Bassey et al. (2016), who concluded that liquidity management is essential for smooth operations as it prevent a shortage of cash and liquidity crisis. Similarly, Nyamai (2018), investigated the impact of budgeting and cash flow management on Kenyan fruit farmers' output and noted that there is favorable and statistically significant relationship between effective working capital management and the success of fruit farms. Ekanem (2010), opined that the goal of liquidity and liquid asset management is to maximize profits by balancing the benefits of holding on to cash against the costs of investing any spare funds. According to Osano (2013), businesses with higher liquidity levels do better than those with lower levels of liquidity.

e) Assessment of Homoscedasticity for Liquidity Management Practices

The assessment of homoscedasticity for financing practices was conducted through normal P-P plot of regression standardized residual. Figure 1 present the result that shows the chosen bivariate model has a normal distribution.

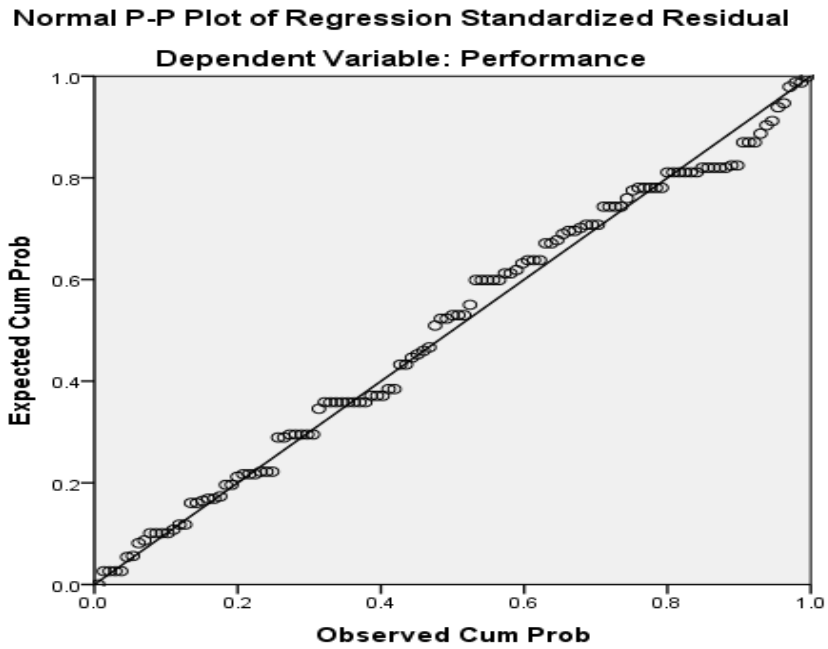

Figure 1: Normal P-P Plot for Standardized Residual for Liquidity Management Practices

CONCLUSION

The primary aim of this research was to assess the liquidity management practices and performance of horticultural enterprises in Laikipia County. Descriptive and bivariate regression analyses were performed to investigate the correlation between liquidity management practices and the performance of horticultural enterprises. The present research posited the hypothesis that there exists no statistically significant correlation between the implementation of liquidity management practices and the performance outcomes of horticultural enterprises operating within Laikipia County. The findings of the linear regression analysis indicate a statistically significant and favorable correlation between the implementation of liquidity management practices and the performance of horticultural enterprises, especially when considered independently. The null hypothesis, which posits that there is no effect of liquidity management practices on the performance of horticultural enterprises in Laikipia County, was found to be rejected. The coefficient (β) was determined to be 0.451, with a p-value of 0.000, which falls below the significance level of 0.05. Furthermore, when doing a multiple regression analysis, it was revealed that these liquidity management practices had a substantial and positive link when examined in conjunction with other characteristics that were taken into account in the research. The coefficient (β) in this particular example was determined to be 0.262, and its associated p value was found to be 0.000. These findings provide further support for the relevance of the observed association, even when considering the influence of other factors.

The rejection of the second hypothesis $H0_2$, which examined the impact of liquidity management practices on the performance of horticultural firms both independently and in conjunction with other factors, provides strong evidence that liquidity management practices significantly influence the performance of horticultural firms. The present results corroborate the conclusions made by Bassey et al. (2016), which emphasized the significance of liquidity management in facilitating seamless operations and mitigating the risk of cash shortages and liquidity crises. Effective liquidity management is crucial for businesses to maintain a favorable equilibrium between their assets and liabilities, hence resulting in enhanced overall performance.

Recommendation and Policy Implications

The research suggests that it is advisable for business management to ensure the timely preparation of the budget and allocate funds specifically for the purpose of meeting current obligations as they become due. Effective management of liquidity will ensure the firm is able to procure farm inputs at the right time and cater for the operational costs.

Contribution to Knowledge

The scope of this research was limited to horticultural enterprises located in Laikipia County, since it was unfeasible to include all horticultural firms throughout the whole of Kenya. Therefore, it is recommended that more research be undertaken in other counties to evaluate the influence of liquidity management practices on organizational success. Additionally, it is important to note that there may be more factors that might potentially impact the profitability of horticulture enterprises.

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