

Working capital financing strategies and liquidity of public secondary schools in Machakos County, Kenya

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Abstract

Liquidity is essential for the effective functioning and financial sustainability of public secondary schools because it enables institutions to meet short-term financial obligations and maintain uninterrupted service delivery. Despite the implementation of the Free Day Secondary Education (FDSE) programme in Kenya, many public secondary schools continue to experience liquidity challenges arising from delayed government capitation, increasing operational costs and inadequate working capital financing. These challenges constrain schools' ability to finance recurrent expenditures, settle short-term liabilities and sustain educational activities. This study examined the effect of working capital financing strategies on the liquidity of public secondary schools in Matungulu Sub-County, Kenya. A descriptive correlational research design was adopted and a census approach was used to include all the 38 public secondary schools in the sub-county. Primary data were collected using structured questionnaires administered to principals, bursars and accounts clerks, while secondary data were obtained from audited financial statements. Descriptive statistics and multiple linear regression analysis were employed to analyse the data after confirming that the assumptions of regression analysis had been satisfied. The findings revealed that the mean current ratio was 0.898, indicating that most schools operated below the recommended working capital threshold. Further, regression analysis established that working capital financing strategies had a positive but statistically insignificant effect on liquidity ($\beta = 0.463$, $p = 0.352$). The findings imply that although appropriate working capital financing contributes positively to liquidity, its effectiveness is constrained by external funding delays and institutional financial limitations. The study concludes that strengthening working capital financing practices alone may not significantly improve liquidity unless complemented by timely government capitation, effective financial planning and sound internal financial management systems. The study recommends that school management, Boards of Management and the Ministry of Education strengthen working capital financing policies, improve cash flow planning, enhance internal financial controls and ensure timely disbursement of government capitation to promote financial sustainability in public secondary schools.

Keywords: Working capital financing strategies, liquidity, current ratio, financial sustainability, public secondary schools, Kenya

Introduction

Public secondary schools in Kenya are mandated to provide equitable and quality education under policies such as the Free Day Secondary Education (FDSE) program and the 100% transition initiative. However, their financial sustainability is increasingly threatened by persistent liquidity challenges arising from delayed government capitation and fee arrears from parents. Nationally, the Kenya National Bureau of Statistics (KNBS, 2022) ^[14] reports that public secondary schools collectively face a fee deficit exceeding Ksh. 15 billion, largely attributable to delayed parental payments and irregular government disbursements. This deficit has undermined schools' ability to meet essential obligations such as staff salaries, learning materials procurement and infrastructure maintenance.

Liquidity is a fundamental determinant of the financial sustainability of public secondary schools because it enables institutions to meet their short-term financial obligations while maintaining uninterrupted educational services. Schools require adequate liquid resources to finance routine operational activities such as procurement of teaching and learning materials, payment of suppliers, and maintenance of infrastructure and settlement of other recurrent expenditures. When liquidity is inadequate, institutions

experience operational disruptions that compromise service delivery and educational outcomes (Brigham & Houston, 2021; Atrill & McLaney, 2021) ^[3].

Working capital financing plays a central role in determining an institution's liquidity position. It refers to the approaches adopted to finance current assets and support day-to-day operations through an appropriate combination of current liabilities and long-term financing sources (Hasan et al., 2020) ^[11]. The effectiveness of working capital financing is commonly assessed using the current ratio, which measures an organization's ability to meet short-term obligations using available current assets (Gitman, Zutter, & Smart, 2018) ^[10]. Institutions that maintain an appropriate balance between current assets and current liabilities are generally better positioned to sustain operational efficiency and financial stability, whereas inadequate working capital financing exposes organizations to liquidity risk and operational uncertainty (Deloof, 2003^[7]; García-Teruel & Martínez-Solano, 2007) ^[9].

The management of working capital has received considerable attention in financial management literature because of its direct influence on organizational performance and sustainability. According to the Cash Conversion Cycle (CCC) Theory proposed by Richards and Laughlin (1980) ^[32], efficient financing and management of

short-term assets and liabilities facilitate timely conversion of resources into cash, thereby enhancing liquidity. Similarly, Brigham and Houston (2021) ^[3] argue that organizations with effective working capital financing policies are better able to absorb financial shocks while maintaining continuity of operations. Consequently, institutions that establish appropriate financing structures for working capital are more likely to maintain financial flexibility and minimize liquidity constraints.

In Kenya, the financing of public secondary schools is largely supported through the Free Day Secondary Education (FDSE) programme and parental fee contributions. Although these funding mechanisms have significantly expanded access to secondary education, many schools continue to experience financial challenges arising from delayed government capitation, irregular parental fee payments and increasing operational costs. The Kenya National Bureau of Statistics (2022) ^[14] reported that public secondary schools continue to face substantial financial deficits attributed to delayed parental remittances and irregular government disbursements. These challenges have reduced schools' ability to finance short-term obligations and have increased pressure on working capital resources.

The situation is particularly evident in Machakos County, where audit reports have revealed increasing levels of outstanding receivables and persistent liquidity constraints among public secondary schools. The Directorate of Audit (2023) ^[24] reported that schools within the county accumulated substantial outstanding receivables over recent years, limiting their capacity to finance routine operations and meet financial commitments. In Matungulu Sub-County, the problem is compounded by increasing student enrolment following the implementation of the 100 percent transition policy, delayed capitation releases and continued fee arrears, all of which exert pressure on schools' working capital financing requirements.

Empirical evidence regarding the relationship between working capital financing and liquidity remains inconclusive. International studies have generally reported that appropriate working capital financing improves liquidity and organizational performance (Deloof, 2003^[7]; García-Teruel & Martínez-Solano, 2007; Lazaridis & Tryfonidis, 2006) ^[9, 18]. However, studies conducted in developing countries suggest that the effectiveness of working capital financing is often constrained by external factors such as unstable funding systems, delayed government disbursements and institutional financial limitations (Nwankwo, 2018; Quaye & Mensah, 2019) ^[25, 30]. Within Kenya, existing studies have primarily focused on general financial management practices, government funding and accounts receivable management, with limited attention given to the specific influence of working capital financing on liquidity in public secondary schools.

This limited empirical evidence presents both a contextual and knowledge gap. While working capital financing is widely recognized as an important determinant of liquidity, little is known about its effectiveness within public secondary schools operating under government funding arrangements and socio-economic constraints. Moreover, most previous studies have concentrated on corporate organizations or public institutions outside the education sector, limiting the applicability of their findings to Kenyan public secondary schools. Addressing this gap is important because understanding the contribution of working capital

financing to liquidity can inform financial management policies aimed at improving operational sustainability within educational institutions.

The present study therefore examined the effect of working capital financing on the liquidity of public secondary schools in Matungulu Sub-County, Kenya. Specifically, the study sought to determine whether working capital financing, measured using the current ratio, significantly influences liquidity performance after controlling for other financial management variables. The findings are expected to contribute to the growing body of knowledge on educational financial management and provide evidence to policymakers, school administrators and other stakeholders on strategies for strengthening liquidity through effective working capital financing practices.

Literature Review

Working Capital Financing and Liquidity

Working capital financing refers to the strategy adopted by an institution to finance its short-term assets and operational activities using an appropriate combination of current liabilities and long-term financing sources. The primary objective of working capital financing is to ensure that organizations maintain adequate liquidity while minimizing financing costs and financial risk (Brigham & Houston, 2021) ^[3]. Effective financing of working capital enables institutions to meet their current obligations as they fall due without interrupting normal operations. Conversely, inadequate financing may expose organizations to liquidity shortages, delayed payments and operational inefficiencies (Gitman *et al.*, 2018) ^[10].

Financial management literature identifies three major working capital financing strategies: conservative, aggressive and matching approaches. Under the conservative strategy, permanent current assets and part of temporary current assets are financed using long-term sources, thereby reducing liquidity risk but increasing financing costs. The aggressive strategy finances a substantial portion of current assets through short-term liabilities, reducing financing costs while increasing liquidity risk. The matching strategy finances permanent assets using long-term funds and temporary assets using short-term financing, thereby balancing profitability and liquidity (Pandey, 2019; Van Horne & Wachowicz, 2016) ^[29, 34].

The choice of working capital financing strategy influences an organization's ability to sustain liquidity and operational efficiency. Organizations that adopt financing policies consistent with their cash flow patterns are generally better positioned to withstand financial uncertainties and maintain continuous service delivery. Educational institutions, whose revenues largely depend on government funding and school fees, require prudent financing strategies because cash inflows are often uncertain and seasonal.

Empirical Literature

International studies provide mixed evidence regarding the relationship between working capital financing and liquidity. Deloof (2003) ^[7], in a study of Belgian firms, established that efficient working capital financing significantly improves liquidity and financial performance by enabling organizations to finance operational activities without excessive reliance on external borrowing. Similarly, García-Teruel and Martínez-Solano (2007) ^[9] found that

organizations maintaining optimal working capital financing policies experienced improved liquidity and enhanced profitability because they were able to balance current assets and current liabilities effectively.

Lazaridis and Tryfonidis (2006) ^[18] also reported a positive relationship between prudent working capital financing and financial performance among listed companies in Greece. Their findings suggested that organizations maintaining appropriate financing structures were more capable of meeting short-term obligations while sustaining profitability. Likewise, Rahman and Nasr (2007) ^[31] observed that effective working capital financing contributes significantly to organizational liquidity through improved management of current assets and liabilities.

Evidence from developing countries presents relatively inconsistent findings. Nwankwo (2018) ^[25] reported that Nigerian public institutions continued to experience liquidity challenges despite maintaining reasonable working capital positions because delayed government funding constrained operational cash flows. Similarly, Quaye and Mensah (2019) ^[30] established that public educational institutions in Ghana experienced persistent liquidity shortages due to delayed government subventions and increasing operating costs, factors that reduced the effectiveness of internal working capital financing strategies.

Within Kenya, research on working capital financing in educational institutions remains limited. Most existing studies have concentrated on general financial management practices, government funding mechanisms and financial accountability rather than financing strategies. Kinyua (2020) ^[16] found that delayed government capitation significantly affected schools' ability to finance recurrent expenditures, resulting in liquidity shortages despite adequate financial planning. Similarly, Kariuki (2018) ^[13] reported that inadequate financial management practices contributed to delayed supplier payments and accumulation of outstanding liabilities in public secondary schools.

Ngugi *et al.* (2023) ^[24] further observed that financial sustainability among Kenyan public secondary schools depends on effective management of short-term financial resources, although the study primarily emphasized overall financial management rather than specific working capital financing strategies. Wambua (2021) ^[35] also reported that increasing operational costs and delayed funding continued to constrain schools' liquidity, limiting their ability to maintain adequate working capital for daily operations.

Although previous studies demonstrate that working capital financing influences organizational liquidity, most have focused on private firms, manufacturing companies or public institutions outside the education sector. Studies conducted within Kenya have largely emphasized government funding, financial management practices and accountability without specifically examining how working capital financing affects liquidity in public secondary schools. Furthermore, limited empirical evidence exists at the sub-county level where financial conditions, funding patterns and management practices differ considerably across schools.

This study therefore addresses this knowledge gap by examining the effect of working capital financing on the liquidity of public secondary schools in Matungulu Sub-County, Machakos County. By focusing on educational institutions operating within the Kenyan public education

system, the study provides localized empirical evidence that can inform financial management policies aimed at improving liquidity and promoting sustainable school operations.

Methodology

Research Design

The study adopted a descriptive correlational research design. Since it allowed the researcher to record and examine the existing condition of working capital financing practices in public secondary schools, the descriptive component was appropriate. This is in line with the objective of accurately portraying financial management procedures in their natural state, free from variable manipulation (Saunders, Lewis, & Thornhill, 2019) ^[33]. The researcher was able to ascertain the direction and strength of relationships between working capital financing and liquidity through the correlational component of the design. This design is frequently employed in financial and educational research (Creswell & Creswell, 2017) ^[5]. The choice of this design is justified by the research objective, which sought to establish whether variations in working capital financing influence liquidity.

Target Population and Sampling

The target population comprised all 38 public secondary schools in Matungulu Sub-County, Machakos County, Kenya. These institutions were chosen because they depend heavily on both government capitation and parental fee contributions, making working capital management critical for liquidity. Key respondents included school principals and bursars/accounts clerks, who are directly responsible for financial management and working capital decisions.

Given the relatively manageable size of the target population, the study adopted a census sampling technique. Census sampling involves collecting data from every member of the accessible population and is particularly appropriate when the population size is small and the goal is to ensure complete representation without sampling error (Kothari & Garg, 2019) ^[17]. The use of census sampling was advantageous because it eliminated sampling bias and ensured that findings could be generalized to all public secondary schools in Matungulu Sub-County.

Data Collection Instruments

Data collection is a critical stage of research as it determines the quality and reliability of findings (Saunders *et al.*, 2019) ^[33]. This study employed two complementary instruments: structured questionnaires and secondary financial records.

The structured questionnaire was administered to principals, bursars, or accounts clerks. It was designed to capture data on working capital financing practices, current assets, current liabilities and perceptions of liquidity challenges. Questionnaires are cost-effective, enable collection of standardized responses and are well suited to geographically dispersed populations (Creswell & Poth, 2018) ^[6]. Each variable of the study was represented by at least five questions, ensuring comprehensive coverage of the constructs under investigation.

In addition, financial records such as audited statements, fee registers and cashbooks were examined. These secondary sources provided objective data to compute financial ratios including the current ratio and cash ratio. Combining questionnaires with financial records allowed triangulation

of data, thereby improving validity and reducing reliance on a single source. This mixed approach has been recommended in financial research where both practices and outcomes need to be studied (Otieno & Omollo, 2022) ^[28].

A pilot study was conducted in three secondary schools outside Matungulu Sub-County but within Machakos County to test the reliability and clarity of the questionnaire. Reliability was tested using Cronbach's Alpha coefficient, which measures internal consistency. The pilot test data was subjected to reliability analysis and results showed alpha values above the threshold of 0.70 for all variables, indicating that the questionnaire items were consistent and reliable.

Data Analysis

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics (frequencies, means, standard deviations and percentages) summarized the demographic characteristics of respondents and general trends in working capital practices. This provided a simple yet comprehensive overview of the data and established patterns that were later explored through inferential statistics.

The primary inferential technique used was multiple linear regression analysis. This method was chosen because it allows the simultaneous examination of the effect of multiple independent variables on one dependent variable. In this study, liquidity (dependent variable) was regressed against working capital financing while controlling for accounts receivable turnover, accounts receivable management and digital financial systems.

The regression model was specified as follows:

$$LQTY = \beta_0 + \beta_1(WC) + \beta_2(ART) + \beta_3(ARM) + \beta_4(DFS) + \mu$$

Where,

LQTY represents Liquidity, ART represents Accounts Receivable Turnover, WC represents working capital, ARM represents the Account Receivable Management, DFS represents Digital financing systems and μ represents the error term.

Results and Discussion

Response Rate

This study's response rate was 92.1% (35) since 7.9% (3) of the questionnaires were not returned as expected. The response rate is summarized in **Table 1** below. Thus, the response was excellent and reliable for answering the research questions, as it significantly surpasses the acceptable threshold of 60% for survey-based studies, thereby minimizing non-response bias (Babbie, 2020) ^[2].

Table 1: Response rate

Category	Frequency	Percentage (%)
Returned	35	92.1
Unreturned	3	7.9
Total	38	100

Demographic Information

Position of Respondents

Among those who participated in the study included school principals comprising 28.6% (10) while bursars and accounts clerks comprised 71.4% (25) as summarized in

Table 2. This shows that the respondents understood the concepts under the study thus providing reliable data.

Table 2: Position of respondents

Position	Frequency	Percent
Principal	10	28.6
Bursar/Accounts clerk	25	71.4
Total	35	100.0

Type of School

From the analysis, 57.1% (20) of the respondents were from day schools, 5.7% (2) from mixed day and boarding while the remaining 37.1% (13) were from boarding schools. Thus, all categories of schools were well represented in the study; hence the results reflected the public secondary schools set up.

Table 3: Type of School

Type of School	Frequency	Percent
Day	20	57.1
Mixed Day and Boarding	2	5.7
Boarding	13	37.1
Total	35	100.0

Years in the Role

Table 4 shows the distribution of respondents based on the number of years they have served in their current role. The largest proportion of respondents, 31.4% (11), have been in their role for 6 to 10 years, suggesting a relatively experienced group. Respondents with 2 years, 3-5 years and over 10 years in the role each account for 22.9% (8) respectively of the sample. This indicates a fairly balanced spread of experience levels among participants and thus conversant with financial issues under study.

Table 4: Years in the Role

Duration	Frequency	Percent
2 years	8	22.9
3-5 years	8	22.9
6-10 years	11	31.4
Over 10 years	8	22.9
Total	35	100.0

Descriptive Statistics

Working Capital Financing

The current ratio, computed as current assets divided by current liabilities, measured working capital financing. Results revealed a mean current ratio of 0.898 (SD = 0.427), with a range from 0.157 to 1.981. This indicates that, on average, schools' current assets were slightly lower than their current liabilities, suggesting mild liquidity constraints. The relatively small variation between schools implies this was a common trend across the sub-county. Most schools operated below the recommended threshold of 1.0, potentially relying on timely fee collections to maintain operations. According to Cash Conversion Cycle Theory, current assets alone do not guarantee liquidity unless converted to cash efficiently.

Liquidity

Liquidity was measured using the cash ratio. The mean cash ratio was 1.29 (SD = 0.547), with a range from 0.183 to 3.838. While the average suggests adequate liquidity, the

wide range indicates significant disparities among schools. The minimum value of 0.183 indicates that some schools operate under severe liquidity constraints. The maximum value of 3.838 suggests that other schools hold excessive idle cash balances rather than utilizing resources efficiently.

This uneven distribution highlights that, although the average cash ratio appears high, it conceals the underlying challenge of many schools which are experiencing liquidity management problems, either through severe shortages or through inefficient cash hoarding.

Table 5: Descriptive Statistics

Variable	N	Mean	Standard. Deviation	Minimum	Maximum
Liquidity	31	1.29	0.547	0.183	3.838
Working Capital	31	0.898	0.427	0.157	1.981
Receivables Turnover	31	3.366	2.87	0.74	14.732
Accounts Receivables Management	31	180.95	126.08	24.776	493.093
Use of digital financial systems	31	0.543	0.505	0	1

Diagnostic Tests

Normality Test

The study investigated the distribution of the residuals derived from the regression. The Shapiro-Wilk test was used to test for normality. The null hypothesis (H_0) states that the residuals are normally distributed. The decision criteria are if $p > 0.05$, we fail to reject H_0 , concluding that the residuals are normally distributed; and if $p \leq 0.05$, we reject H_0 , indicating non-normality.

The results showed a W-statistic of 0.9626 and a p-value of 0.273. Since 0.273 is greater than 0.05, we fail to reject the null hypothesis. This confirms that the residuals are approximately normally distributed. This implied that the use of Ordinary Least Square (OLS) would give reliable results.

Table 6: Shapiro Wilk Test Results

Variable	Observation	W	V	z	Prob>z
Residuals	35	0.96261	1.335	0.602	0.27343

Heteroscedasticity Test Results

The study investigated presence of heteroscedasticity using Breusch-Pagan test. The null hypothesis (H_0) is that the residual variance is constant. The rule for interpretation is if $p > 0.05$, we fail to reject $H_0 \rightarrow$ residual variance is constant; and if $p \leq 0.05$, we reject $H_0 \rightarrow$ heteroscedasticity exists.

The Breusch-Pagan test produced a chi-square value of 11.40 and a p-value of 0.4951. Since the p-value is greater than 0.05, the null hypothesis of constant variance was not rejected. This indicates the absence of heteroscedasticity, implying that residual variance does not vary systematically with the fitted values. The regression model met the homoscedasticity assumption, confirming the efficiency of its parameter estimates.

Table 7: Heteroscedasticity Test Results

H0: Constant variance		
chi2(1)	=	11.40
Prob > chi2	=	0.4951

Regression Results

Analysis of Variance (ANOVA) Test

The ANOVA analysis assessed the overall significance of the regression model used to predict the liquidity of public secondary schools. The F-statistic is 7.99 with a corresponding p-value (Sig.) of 0.0002, which is below the conventional significance level of 0.05. This indicates that the combined influence of the independent variables working capital financing, accounts receivable turnover, accounts receivable management and digital financial systems is statistically significant in predicting liquidity. In other words, there is sufficient evidence to conclude that these variables, when taken together, significantly explain the variation in the schools' liquidity.

Table 8: ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.98	4	10.49	7.99	0.0002
Residual	39.39	30	1.31	—	—
Total	81.37	34	—	—	—

Regression Coefficients

The regression analysis results in the table below show the constant ($\alpha = 1.29$, $p = 0.005$), indicating that when all the independent variables working capital financing, accounts receivable turnover, accounts receivable management and digital financial systems are held at zero, the baseline level of liquidity is 1.29. Although in practice these financial variables are rarely zero, the intercept provides a meaningful reference point for understanding how each predictor contributes to liquidity in public secondary schools.

For working capital financing, the coefficient ($\beta = 0.463$, $p = 0.352$) indicates that a one-unit increase in working capital financing is associated with an increase of 0.463 in liquidity, assuming other variables remain constant. However, since the p-value is greater than the 0.05 significance threshold, this effect is not statistically significant, implying that variations in working capital financing alone do not reliably predict liquidity levels in these schools. This suggests that while working capital financing is theoretically expected to improve liquidity, its impact may be limited when other financial management practices are also in play.

Table 9: Regression Coefficients

Dependent Variable: Cash Ratio				
Explanatory Variables	Coefficient	Standard Error	t	P>t
Working Capital Financing	0.463	0.489	0.95	0.352
Receivables Turnover	0.312	0.0925	3.39	0.002
Account Receivable Management	-0.00412	0.00233	-1.77	0.088
Digital Financing Systems	1.157	0.397	2.91	0.007
Constant	1.29	0.808	3.07	0.005

Discussion of Results

This study examined the effect of working capital financing on the liquidity of public secondary schools in Matungulu Sub-County, Kenya. The findings revealed that working capital financing had a positive but statistically insignificant effect on liquidity ($\beta = 0.463$, $p = 0.352$). This implies that while schools with greater access to working capital generally showed improved liquidity, the relationship lacked statistical strength. Therefore, working capital financing was not a strong predictor of liquidity in this context.

The descriptive analysis showed a mean working capital ratio of 0.898, which is below the generally accepted threshold of 1.0, signaling that many schools may struggle to maintain short-term solvency without prompt fee collection. This finding is consistent with Mwangi (2021)^[21], who found that public secondary schools in Machakos County had current ratios averaging below 1.0, pointing to a heavy dependence on prompt fee remittance to sustain liquidity. Similarly, Ngugi and Were (2021)^[23] found that irregular disbursement of public funds diminishes the intended positive effect of working capital on operational liquidity in public institutions. According to Kihara (2020)^[15], inadequate and unpredictable funding weakens the financial planning of public schools, leading to recurring cash shortfalls despite the presence of formal financing structures.

The finding that working capital financing had a statistically insignificant effect on liquidity aligns with prior research in Kenyan public institutions. Muli and Kyalo (2022)^[20] found that delayed government capitation and parental fee arrears, rather than internal working capital policies, were the primary drivers of liquidity problems in public secondary schools in Kitui County. Similarly, Mwangi and Muturi (2020)^[22] established that delayed payments significantly reduced liquidity in Nairobi County public secondary schools. These findings suggest that even when schools have adequate current assets on paper, delays in converting those assets into cash particularly through slow fee collection and capitation disbursements undermine their practical liquidity position.

The results also have theoretical implications. The Cash Conversion Cycle Theory emphasizes that current assets alone do not guarantee liquidity unless they are efficiently converted into cash. In Matungulu schools, delays in converting receivables into cash (average collection period of 180.95 days) and irregular government capitation extend the cash conversion cycle, weakening the effect of working capital on liquidity. This finding suggests that the CCC theory, while useful, needs to be adapted to account for the unique constraints of public educational institutions in developing countries, where external factors beyond managerial control significantly influence cash flow dynamics.

The study's findings also highlight the importance of considering socio-economic factors in working capital management. Nyaga and Wambua (2022)^[26] demonstrated that the socio-economic status of parents significantly affects collection periods, with lower-income households extending payment delays beyond the academic term. In Matungulu Sub-County, where many households rely on seasonal agricultural income or informal sector earnings, the ability to pay school fees promptly is constrained, affecting schools' working capital positions regardless of their internal management practices.

The positive but insignificant effect of working capital financing on liquidity may also be explained by the limited adoption of digital financial systems in some schools. The descriptive statistics showed that only 54.3% of schools had implemented digital systems for fee collection. Schools still relying on manual, paper-based systems are prone to inefficiencies, delays and errors in tracking receivables, reducing the effectiveness of their working capital management. This aligns with Chepkwony (2021)^[21], who documented that digital payment platforms significantly reduce the administrative lag and errors associated with manual cash handling, directly accelerating cash inflows.

Conclusion and Recommendations

Conclusion

This study investigated the effect of working capital financing on the liquidity of public secondary schools in Matungulu Sub-County, Kenya. The results established that working capital financing had a positive but statistically insignificant effect on liquidity, indicating that variations in working capital financing alone do not reliably predict liquidity levels in these schools. The mean current ratio of 0.898, below the recommended threshold of 1.0, suggests that most schools operate with current assets marginally lower than current liabilities, indicating mild liquidity constraints. The study concludes that working capital financing is not a strong predictor of liquidity in this context. The weak effect is likely attributable to external factors beyond schools' control, particularly delayed government capitation disbursements and persistent parental fee arrears, which undermine the intended benefits of working capital structures.

The study further concludes that the Cash Conversion Cycle Theory, while providing a useful analytical framework, needs to be adapted for public educational institutions in developing countries. The theory assumes that cash inflows and outflows are primarily within managerial control, but in public schools, cash flows are heavily influenced by external policy decisions and socio-economic realities. This creates a tension between financial efficiency and social mandate that the pure CCC model does not adequately address.

At the practical level, the study concludes that even in semi-rural environments, working capital management can alleviate liquidity challenges when complemented by effective receivable management practices and technology adoption. Schools that enforce stricter fee collection policies, maintain effective budgeting systems and prudently balance cash reserves with short-term obligations are better positioned to remain resilient even in the face of delayed government disbursements or irregular parental payments.

Recommendations

Policy Recommendations

The Ministry of Education should streamline capitation disbursement processes to ensure timely release of funds at the beginning of each term, complementing schools' working capital management efforts and reducing liquidity strain. This would address the persistent challenge of delayed government funding that undermines the effectiveness of working capital structures.

Standardized policies should be developed to guide schools in managing working capital with clear timelines and structured follow-up mechanisms for fee payments.

Financial stability would be greatly improved by rules that enforce prompt fee collections and provide frameworks for managing default cases.

Comprehensive policy frameworks should codify the deployment of digital financial systems in all public secondary schools. In addition to improving accountability and transparency, electronic invoicing systems, mobile money platforms and other digital tools would cut down on income leaks and improve working capital management.

Practical Recommendations

Schools should strengthen internal financial controls, including regular monitoring of current assets and liabilities to maintain healthy working capital positions. This can be accomplished by implementing strong receivable tracking systems, keeping current fee statements and setting up trustworthy follow-up procedures.

School finance staff should be trained in contemporary working capital management techniques, including forecasting cash flow needs and optimizing the asset-liability balance. Building the capacity of finance staff through instruction in modern financial management methods and digital literacy is equally crucial.

Schools should implement intentional tactics to improve communication with guardians and parents. Frequent interaction would lower default rates and promote mutual accountability, especially when combined with the implementation of flexible but enforceable fee payment options.

Schools should integrate cloud-based accounting systems and automated working capital management tools to reduce manual inefficiencies and errors. The use of digital platforms should be prioritized to enhance real-time monitoring of school income and reduce leakages.

Suggestions for Further Research

Even though this study offers valuable insights into the connection between working capital financing and liquidity, there are still a number of gaps that may be filled by further research. The impact of postponed government capitation payments on school liquidity is one important issue. Working capital is important, but administrators have identified irregular and delayed capitation grant disbursements as a primary cause of public-school financial instability. Therefore, future research could concentrate on measuring the long-term effects of postponed government financing on the sustainability and financial planning of schools.

The differences in the uptake and efficacy of digital financial systems in rural and urban settings represent another crucial research topic. It would be worthwhile to investigate whether digital platforms are just as successful in improving working capital management in rural schools as they are in urban ones, given the differences in infrastructure and technological accessibility. Customized plans for expanding financial technology solutions in various contexts could be influenced by such studies.

Additionally, future studies should widen the scope of financial management variables by including budgeting techniques, cost control strategies and expenditure management systems. A more thorough examination of these factors would yield a thorough comprehension of the factors influencing school liquidity. To increase the generalizability of the findings, future research should

broaden the scope to include a national sample or several counties. Comparative studies between public and private secondary schools may also be beneficial in highlighting differences in working capital practices and liquidity management across various institutional settings.

Lastly, qualitative methods like focus groups and interviews with parents, finance officers and school administrators might be beneficial to supplement quantitative analysis. Deeper understanding of the institutional, behavioral and socioeconomic elements influencing working capital management and liquidity outcomes in public secondary schools would result from this.

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