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# INFLUENCE OF CASH MANAGEMENT PRACTICES ON FINANCIAL SUSTAINABILITY OF PUBLIC SECONDARY SCHOOLS IN NAKURU TOWN EAST SUB-COUNTY

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*Abstract:* **Many public secondary schools in Kenya have faced several challenges in in respect to the financial sustainability. This is evidenced by failure by some of these schools to pay teachers and other subordinate staff on the payroll of the Boards of Management. In the view of this realization, this study sought to determine the influence of cash management practices on financial sustainability in public secondary schools. Specifically the study examined influence of cash flow forecast on financial sustainability of public secondary schools in Nakuru Town East Sub-County, Kenya. The study was guided by debt management theory. The study employed a survey research design, the target population was54 respondents which comprised 27 principals and 27 bursars working with the public secondary schools in Nakuru Town East Sub-County where census survey was adopted. Questionnaire was used collect primary data. Descriptive and inferential statistics were used to analyse data. The research findings indicated that public secondary schools were able to predict their income from various income generating activities. It was disagreed that the cash flow forecast duration was flexible. Cash flow forecast had a positive and significant relationship with financial sustainability.**

*Keywords:* **Public secondary schools, Cash flow forecast, Nakuru Town East Sub-County, Financial sustainability.**

## 1. INTRODUCTION

A report developed by [1] addressed the business of education in Africa. Majority of the education programs operate on the basis of advance payment of school fees. This provides the management of schools in Sub-Saharan Africa with liquidity to invest with reduced risk. This working capital makes investing in education more operational and has therefore attracted investors due to its financial efficiency. In addition, the negative working capital also attracts high profit margins. However, lack of working capital affects the size and growth of the education sector since they lack finances for expansion. This has led to emergency of programs that are availing capital to schools through the community based microfinance institutions. Further, the programs are also providing training on effective working capital management to schools to ensure they are well equipped with necessary skills.

It is reported that there exists challenges of cash management in tertiary institutions in Nigeria [2].These problems have created a lot of concern amongst contemporary managers and administrators. It is acknowledge that in Nigeria, cash crisis in learning institutions has resulted in acquisitions, mergers or extinctions of relevant departments in the said institutions. Moreover, the cash problems have been blamed for strikes and labour unrest. In this regard, therefore, there has been dire need for the institutions' administrators to identify the causes of cash shortage in their operations. In the same vein, the need to introduce professionalism in cash management in order to mitigate cash problems has been underlined.

The Kenyan government places a lot of importance on working capital management, including cash management, in schools since a large proportion of the schools' total assets is held in the form of working capital. The stated management in both private and public secondary schools ensures that school terms are not terminated before their stipulated time to avoid interference with the learning program of students. It is of utmost importance to have an efficient management team with relevant skills and training. The various factors that influence the management of working capital are the size of the institution, the industry and the political legal environment. In addition working capital management involves the management of both current assets and current liabilities which are constituents of cash [3].

According to [4], there are specific knowledge, skills and attitudes that are required by principals of public secondary schools in Kenya in order have effective financial management. There has been financial mismanagement in public secondary schools in Kenya which have to complaints from parents. It is evident from past studies that public secondary schools often fail to consult government representatives when formulating financial policies such as budget preparation. This is in spite of these schools receiving part of their funds from the national government [4]. The various challenges facing financial sustainability of public secondary schools in Kenya necessitates this study with the object of determining the extent to which cash management influences financial sustainability of the mentioned schools.

## 2. STATEMENT OF THE PROBLEM

Despite the significant and the increase effort by the ministry of education in Kenya to ensure that public secondary schools receive disbursement of fund in time and run their operations sustainably, many of these public schools in Kenya still faces several challenges in respect to running their operations. Past statistics over the last three years as provided by the ministry of education indicates that, there has been an increase in the number of complaints filed against the management of public secondary schools for charging exorbitant fees in spite the recommendations from the government through the ministry of education [5]. A study by [4] indicates that parents of public secondary schools in Kenya often complain of financial mismanagement. Granted the fact that the a fore stated learning institutions do receive cash in various forms, yet they have, in several instances, failed to live up to their financial obligations, is an issue that raises questions regarding cash management. [6] in his article ‘’Queries over move to audit schools’’ reveals a presidential decree, presented by the Director of Education (Wangai), in January 2002 for a countrywide examination of the management of finances in public primary and secondary schools. According to Wangai, 10 percent of public secondary schools were facing financial impropriety and therefore there was need for government auditing. [7] observed that the audit department had difficulties in keeping track with the financial performance of schools because bursars declined to forward financial records for scrutiny. Due to this, parents have complained of financial mismanagement. [8] felt that society has vested interest in education and they must be assured that they are spending their money on a worthy cause. When schools lack financial sustainability, they are likely to experience a chain of problems. These include failure to pay creditors and suppliers as per the contractual agreement, inability to employ enough staff, inability to procure the required quality and quantity of goods and services, among others. The foregoing challenges emanate from lack of sufficient funds to cater for the quoted responsibilities particularly when the needs arise. These problems are likely to result in ineffective running of the schools and, in extension, poor academic performance among students. It is therefore within the researcher’s knowledge that no research has been done on cash management practices on financial sustainability of public secondary schools. The study therefore seeks to establish the influence of cash flow forecast on financial sustainability of public secondary schools in Nakuru Town East Sub County.

## 3. OBJECTIVE OF THE STUDY

To examine the influence cash flow forecasting on financial sustainability in public secondary schools in Nakuru Town East Sub-County

## 4. RESEARCH HYPOTHESIS

$H_0$: Cash flow forecasting has no significant influence on financial sustainability in public secondary schools in Nakuru Town East Sub-County.

## 5. THEORY OF DEBT MANAGEMENT

The theory of debt management is accredited to [9]. The theory proposes that the composition of government debt should be selected such that a change in the market value of debt offsets changes in expected future deficits. This approach to debt management is also applicable even in instances where the government issues non-contingent bonds. It further suggests that governments should invest in short term assets and issue long term debts.

The theory is based on the idea that fiscal policy and debt structure should be jointly determined since the government's ability to offset unforeseen fluctuations in government expenditure by managing the size, composition and value of debt affects the fiscal policy. Separation of debt management from monetary policy remained effective until the global financial crisis as noted by [10]. It is also noted that debt management helps in insulating fiscal policy from macroeconomic shocks. The theory of debt management is applicable in the context of public secondary schools as it is important in managing accounts receivable. Debt management in schools will ensure that there are no school fees arrears and this will facilitate smooth learning of operations, and hence financial sustainability of these learning institutions. Effective debt management in organizations dependent on how the firms projected cash flow or mobilized cash is invested in a bid to give reasonable return. The organizations are therefore are to settle their debts from the return on investment without experiencing financial constraints and thus enhance their financial sustainability.

## 6. EMPIRICAL REVIEW ON CASH-FLOW FORECASTING AND FINANCIAL SUSTAINABILITY PUBLIC SECONDARY SCHOOLS

In South Africa, [11] investigated the impact of cash flow forecasting on profitability and sustainability of small retail businesses in the Tongaat area, Kwazulu-Natal the study established that there is a significant relationship between drawing budgets and sustainability, with the results indicating that the more a business draws up cash budgets, the more viable and sustainable it is. The findings of the study revealed that 78.3% of the respondents acknowledged the importance of keeping records although only 29.9% drew up cash budgets. In light of these findings, the study noted that emphasis should be placed on proper cash management practices and how it can affect business profitability.

In South Africa, [12] examined the management of funds in selected secondary schools in Gauteng Province. The study established that school governing bodies in secondary schools which comprise of parents face a major challenge in financial management. This was attributed to lack of knowledge and expertise in proper governance as the training offered to these governing bodies is not effective. However, the study revealed that there is proper budgeting and maintenance of financial records in some of the secondary schools under study. The study recommended that the treasury of the governing bodies should possess accounting or financial skills so as to ease the burden placed on the principals who have to perform financial duties on behalf of the governing body. Moreover, effective training should be given and all stakeholders should be consulted during the budgeting process.

In a study conducted by [13] the effects of cash management practices on operational performance of selected public hospitals were examined. The study was conducted across 31 public health facilities in Kisii County, Kenya. A descriptive survey research design was adopted. A sample of 99 respondents was considered for analysis. The findings of the study revealed that cash budgets assisted in making cash flow projections and also in ensuring that there are budgetary controls and controls of the hospitals' spending habits

## 7. CONCEPTUAL FRAMEWORK

A conceptual framework describes a narrative or diagrammatic representation of variables of a study and how they are hypothesized to interact. In respect to the present study, the conceptual framework is as shown in Figure 2.1. According to the illustrated framework, there are two distinct set of variables namely; independent and dependent variables. The independent variables, otherwise referred to as predictor variables, include cash flow forecast, cash mobilization, banking relations, and investment strategies. Financial sustainability is the dependent variable. It is hypothesized that the aforementioned independent variables which characterize cash management, influence financial sustainability of public secondary schools.

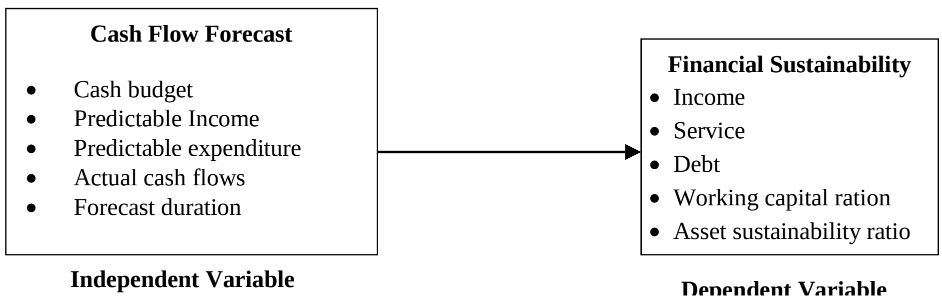


**Figure 1: Conceptual Framework**

## 8. RESEARCH METHODOLOGY

Research methodology illustrates the procedure of carrying out a research study. According to [14] research methodology is described as a systematic way of solving a research problem. In other words, it refers to the science of understanding how a research is conducted scientifically. This chapter, therefore, encompasses the research design, target population, census design, research instrument, pilot testing, data collection procedure, and data analysis and how study findings were presented.

### 8.1 Research Design

Research design is defined as an arrangement o conditions that are required for collection and subsequent analysis of data with the object of addressing the purpose of the research. In other words, a research design comprises a roadmap or the collection, measurement and analysis of data [14]. The study adopted a survey research design. The choice of this design was premised on the fact that the study examined the issue of cash management practices and financial sustainability in public secondary schools at a given point in time and described the phenomenon and state of affairs as they are according to responses from the subjects.

### 8.2 Target Population

An aggregate of subjects sharing similar characteristics constitute the target population. In addition, it is stated that, the target population describes the units which the results of a survey are implied to generalize [15]. In this respect, therefore, the bursars and principals of public secondary schools in Kenya comprised the target population for this study. The study population is a subset of the target population and defines the population that is accessible to the researcher. In light of this, the study population constituted 27 principals and 27 bursars working with the public secondary schools in Nakuru Town East Sub-County.

### 8.3 Census Design

According to [16] a relatively small study population does not warrant sampling. Instead, all members of the study population are required to participate in the study. In the context of the present study, all the 54 respondents comprising of the principals and bursar took part in the study. The census approach ensured that there was no element of chance left and as such the results obtained were very precise.

### 8.4 Research Instrument

In survey studies, the most suitable tools for aiding in data collection are questionnaires [17]. Therefore, a structured questionnaire was used to facilitate data collection. The questionnaire was structured in respect of all the study variables that essentially tally with the objectives of the study. In addition, the questionnaire consisted of questions that facilitated collection of primary data on a Likert scale.

### 8.5 Data Analysis

In tandem with [14] emphasis, the collected data was essentially examined for completeness, comprehensibility, consistency and also reliability. The collected data was processed and analyzed. This involved performing a series of statistical computations with the aid of the Statistical Package for Social Sciences (SPSS) Version 25 software. The analyses used both descriptive and inferential statistics. The descriptive statistics assumed included percentages, frequencies, mean and standard deviations and were used to summarize data. Inferential statistics comprised on correlation coefficient which as used to test the correlation or non-causal relation between independent variable and the dependent variable, while regression analyses was used test combined causal relationship between predictor variable and the dependent. The formulated research hypothesis were tested using regression analysis at 5% significance level. The following regression model was adopted

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \varepsilon}$$

Where:

Y represent financial sustainability

$\beta_0$ represent regression constant

$X_1$ represent cash-flow forecast

$\varepsilon$ represent error term assumed to be normally distributed

$\beta_{1,}$ represent Regression coefficients of predictor variable

## 9. RESULTS AND DISCUSSION

### 9.1 Response Rate

Out of fifty four questionnaires that were administered, forty four were properly filled and returned back. This indicates a repose rate of 81.5%. According to [18] a response rate of 60% is good, 70% very good and 50% adequate for analysis and reporting from manual surveys

### 9.2 Descriptive Results

Descriptive statistics analysis for study research variables and discussions are presented. The responses were ranked on a 5-point Likert-type scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The responses were analyzed using frequencies, percentages, mean values and standard deviations.

#### 9.2.1 Characteristics of Board of Directors

The descriptive results illustrated in Table 1 are in relation to cash flow forecasts in the context of financial sustainability of public secondary schools in Nakuru Town East Sub-County.

**Table 1: Descriptive Statistics for Cash Flow Forecasts**

| **Cash flow forecast statements N=44** | **Strongly disagree** | **Disagree** | **Undecided** | **Agree** | **Strongly Agree** | **Mean** | **Std.** |
|---|---|---|---|---|---|---|---|
| Our school strictly follows the stipulations of its cash budget | 8 (18.2%) | 7 (15.9%) | 1 (2.3%) | 10 (22.7%) | 18 (40.9%) | 3.750 | 0.081 |
| Our school is able to predict its income from various income generating activities | 4 (9.1%) | 6 (13.6%) | 7 (15.9%) | 23 (52.3%) | 4 (9.1%) | 3.386 | 0.125 |
| Our institutions is able to predict all its expenditures | 13 (29.5%) | 11 (25.0%) | 6 (13.6%) | 11 (25.0%) | 3 (6.8%) | 2.545 | 0.337 |
| It is quite hard to determine actual cash flows for our school | 7 (15.9% | 2 (4.5%) | 8 (18.2%) | 19 (43.2)% | 8 (18.2%) | 3.022 | 0.210 |
| The cash flow forecast duration is flexible | 15 (34.1%) | 17 (38.6%) | 4 (9.1%) | 6 (13.6%) | 2 (4.5%) | 2.159 | 0.180 |

Respondents were asked to indicate the extent to which they agreed with cash flow forecasts statements. Table 1 presents the results of the analysis. On cash flow forecasts, the results on Table 1 indicate that majority of the respondents 28(63.6%) were in agreement that their secondary schools strictly follows the stipulations of their cash budgets (mean=3.750, SD=0.081). Public secondary schools are able to predict their income from various income generating activities according to 27(61.4%) of the respondents (mean=3.386, SD=0.125). Cash budgets assists in making cash flow projections and also in ensuring that there is budgetary controls and controls of the hospitals’ spending habits [13].Further, there was disagreement among a fair majority of the respondents 24(54.5%) on whether public secondary schools were able to predict all their expenditures (mean=2.545, SD=0.337). According to 27(61.4%) of the respondents, public secondary schools in Nakuru Town East Sub-County find it had to determine actual cash flows (mean=3.022, SD=0.210). with a larger majority of the respondents 32(72.7%) being in disagreement that the cash flow forecast duration was flexible (mean=2.159, SD=0.180). All the responses had standard deviation values less than 1 which implies that there was no disparity in opinions among the respondents on cash flow forecast statements.

### 9.2.2 Financial Sustainability

The financial sustainability results are demonstrated in Table 2.

**Table 2: Descriptive Statistics for Financial Sustainability of Public Secondary Schools**

| Cash mobilization statements N=44 | Strongly disagree | Disagree | Undecided | Agree | Strongly Agree | Mean | Std. |
|---|---|---|---|---|---|---|---|
| Our school has realized increased income over the past one year | 17 (38.6%) | 15 (34.1%) | 9 (20.5%) | 2 (4.5%) | 1 (2.3%) | 1.977 | 0.999 |
| The school has been able to provide expected services without significant hitches | 6 (13.6%) | 10 (22.7%) | 13 (29.5%) | 12 (27.3%) | 3 (6.8%) | 2.909 | 1.157 |
| The level of debt owed by our institution is relatively low | 10 (22.7%) | 6 (13.6%) | 8 (18.2%) | 10 (22.7%) | 10 (22.7%) | 2.818 | 0.385 |
| The ratio of working capital of our school is significantly high | 5 (11.4% | 6 (13.6%) | 22 (50.0%) | 9 (20.5)% | 2 (4.5%) | 2.931 | 0.997 |
| Our school has been facing financial challenges in sustaining both its movable and immovable assets | 7 (15.9%) | 17 (38.6%) | 15 (34.1%) | 5 (11.4%) | 0 (0.0%) | 2.409 | 0.897 |

The respondents were asked to indicate the extent to which they agreed with financial sustainability statements. The results on Table 2 indicate that most respondents 32(72.7%) disagreed that public secondary schools have realized increased income over the past one year (mean=1.977, SD=0.999) while it was not clear whether public secondary schools have been able to provide expected services without significant hitches with 15(34.1%) of the respondents being in agreement and 16(36.1%) being in disagreement (mean=2.909, SD=1.157). Respondents 20(45.4%) indicated that the level of debt owed by public secondary schools institution is relatively low (mean=2.818, SD=0.385). Further, respondents 22(50%) held neutral opinion on whether the ratio of working capital of public secondary schools was significantly high (mean=2.931, SD=0.997) while respondents 24(54.5%) showed disagreement on whether public secondary schools in Nakuru Town East Sub-County have been facing financial challenges in sustaining both their movable and immovable assets (mean=2.409, SD=0.897). Most mean values registered standard deviations which were less than 1. This indicates that there was no disparity in opinions among the respondents regarding financial sustainability measurable indicators.

### 9.3 Inferential Results

This section presents the results of inferential statistics that were namely; Pearson correlation coefficient and multiple regression analysis.

### 9.3.1 Results of correlation analysis

The correlation findings are depicted in Table 3.

**Table 3: Correlation between of Cash flow Forecast and Financial Sustainability**

| | | Financial Sustainability |
|---|---|---|
| **Cash flow Forecast** | Pearson Correlation | .668** |
| | Sig. (2-tailed) | .000 |
| | N | 44 |

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

The results in Table3 shows that a significant moderate correlation exists between cash-flow forecast and financial sustainability in Public secondary schools ($r = 0.668$, $p < 0.05$). The results implied that when cash flow forecast was enhanced, financial sustainability of the surveyed schools would improve.

### 9.3.2 Regression Results

The results of regression are illustrated in Table 4.

**Table 4: Beta Coefficients for Cash Flow Forecast and Financial Sustainability**

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| **Model** | **B** | **Std. Error** | **Beta** | **t** | **Sig.** |
| 1 (Constant) | 2.740 | .912 | | 3.004 | .004 |
| Cash Flow Forecast | .330 | .039 | .144 | 8.461 | .000 |

**a. Dependent Variable: Financial Sustainability**

$Y = \beta 0 + \beta_1 X_1 + \varepsilon$

Therefore,

$Y = 2.740 + 0.330X_1 + \varepsilon$

The regression analysis results in Table 4 indicate that there existed a statistically significant positive relationship between cash flow forecast and financial sustainability in public secondary schools ($\beta = 0.330$, $p<0.05$). Numerically, the 0.330 beta coefficient of cash flow forecast implied that when cash flow forecast is enhanced by an additional unit, financial sustainability in public secondary schools increases by 0.330.The results were also used to test the null hypothesis.

### 9.3.3 Testing Null Hypothesis ($H_0$)

The results of the t-statistics were used to test the null hypothesis ($H_0$) as shown below.

$H_0$: Cash flow forecasting has no significant influence on financial sustainability in public secondary schools in Nakuru Town East Sub-County.

$H_0$: Cash flow forecasting has significant influence on financial sustainability in public secondary schools in Nakuru Town East Sub-County.

The results for t-statistics were ($t = 8.461$; $p < 0.05$). As such, the influence of cash flow forecast on financial sustainability of public secondary schools was positive and statistically significant. Therefore, the null hypothesis was rejected. The alternative hypothesis was taken to be true.

## 10. CONCLUSIONS AND RECOMMENDATIONS

It was concluded that cash flow forecast had a significant influence on financial sustainability in public secondary schools, and there existed a positive significant relationship between cash flow forecast and financial sustainability in public secondary schools in Nakuru East Sub County. Further, public secondary schools strictly follow the stipulations of their cash budgets and are able to predict their income from various income generating activities. However, public secondary schools are not able to predict all their expenditures and they find it had to determine actual cash flows may be as a result of inflexible cash flow forecast duration. It was recommended that the ministry of education should conduct workshops to enhance skills of public secondary schools bursars and head teachers on predicting expenditures in bid to determine actual cash flows.

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