

# **Operating Cash Flow Management and Financial Performance of Private Secondary Schools in Nakuru County, Kenya**

**Rebecca Wangui Mwaura**

*Student, School of Business and Entrepreneurship  
Jomo Kenyatta University of Agriculture and Technology, Kenya*

**Dr. Solomon Ngahu**

*Lecturer, School of Business and Entrepreneurship  
Jomo Kenyatta University of Agriculture and Technology, Kenya*

---

**Abstract:** *Private secondary schools in Kenya have been facing considerable financial difficulties which have been orchestrated by various factors, both internal and external. In light of this, the current study determined the influence of operating cash flow management on financial performance of the aforementioned learning institutions. The study was guided by Abnormal Lee's Model. Explanatory research design was adopted alongside quantitative research methods. The target population was 101 private secondary schools in Nakuru County. The principals, managers/directors and bursars took part in the study, and, therefore, constituted the accessible population. The study adopted a simple random sampling technique to obtain 68 respondents from the total population of 202 principals, managers/directors and bursars. Descriptive and inferential statistics were employed in data analysis. Descriptive research findings established that operating cash flow management influenced financial performance to a great extent. In inferential analysis, results showed that correlation coefficient ( $r = -0.331$ ;  $p = 0.013$ ) was significant at 95% confidence level. This implied that operating cash flow management had a significant relationship with financial performance. Results of linear regression analysis revealed that the  $t$ -value ( $t = -2.002$ ;  $p = 0.050$ ) depicting the relationship between operating cash flow management and financial performance was significant. This led to the conclusion that operating cash flow management practice influence the financial performance of private secondary schools. Based on the conclusion, it was recommended that the private secondary schools should ensure that they have sufficient operating income to achieve and maintain desirable financial performance.*

**Key Words:** *Operating Cash Flow Management, Financial Performance, Private Secondary Schools*

---

Date of Submission: 08-09-2022

Date of Acceptance: 25-09-2022

---

## **1. Introduction**

Financial performance is of vital importance in evaluating the financial health of a firm and forecasting the potential for growth and sustainability (Brigham & Houston, 2021). Assessment of financial performance in private secondary schools is thus crucial in enhancing effectiveness and efficiency in their operations. The status of the learning institution from the financial performance standpoint provides key insights that help in planning for adequate revenue generation and management as well as sustainable spending. Success or failure of an organization is attributed to a large extent to cash flow management (Morin & Maux, 2011). Pertinently, cash flow management affects the operations of the organization and their opportunities to generate revenue. Cash flow entails the flow of cash and cash equivalents into and out of a firm (Hofstrand, 2016). Operating cash flow describes the cash flow generated from organization's operational activities. Andreas (2017) asserted that operating cash flow management involve the practice that is focused on generating sufficient positive cash flow to maintain and grow organization's operations. It contributes to the expansion of operations, which opens more avenues for earnings and improvement in financial performance. Financial performance is described as the achievement of positive financial indicators of a firm for a specified period of time. In other words, it refers to the ability of a firm to manage and control its resources (Fatihudin, Jusni, & Mochklas, 2018). In order to assess the financial performance of a firm, there ought to be critical examination of its financial records constituting cash flows, balance sheets, and also changes in both capital and profit or loss. Essentially, the assessment of

how well a firm or organization can employ its assets from its entrepreneurial activities and realize revenue amounts to financial performance (Kinyanjui, Kiragu, & Kamau, 2017).

## 2. Statement of the Problem

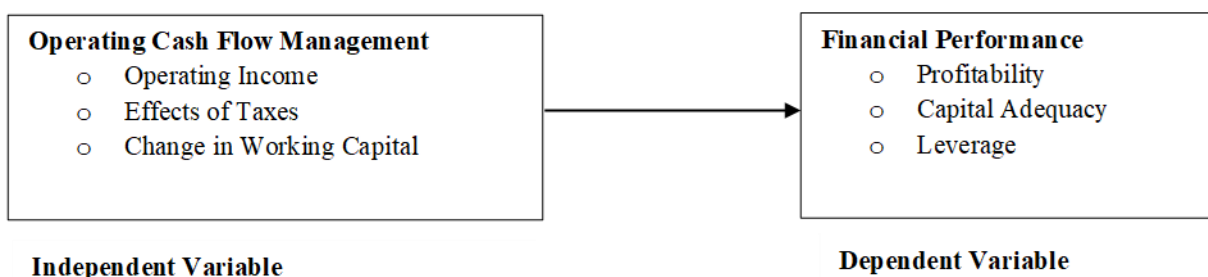
Private secondary schools are business enterprises whose key objective is to enhance their financial performance. Ideally, these institutions should post increased financial performance in terms of profitability and other metrics. However, this has not been the case particularly during the prevailing Covid-19 pandemic. Reports indicate private schools, which do not enjoy state funding like their public counterparts, have been experiencing financial difficulties epitomized by negative cash flows. Statistics indicate that 75% of these institutions in Kenya have been under financial duress (Nagila, 2020). The outweighing of cash outflows over cash inflows has resulted in inability of these learning institutions to pay staff salaries as well as to address administrative costs. For instance, when the schools had been shut does, 65.63% of private schools were unable to pay full salaries to their staff (Riggall, Kashhepakdel, Mullan, Rajagopalan, Sutoris, & Korin, 2021). Consequently, laying down of staff has been witnessed and total shutdown of some of private schools reported in the country. The aforesaid raises pertinent questions on the status of cash flow practices put in place by private schools and the role these practices play in the financial performance of these learning institutions. Hitherto, the existing empirical literature falls short of addressing the link between operating cash flow management and financial performance of private learning institutions in Kenya. For instance, a study by Namasabu (2014) addressed cash management as opposed to operating cash flow management practices in addition to failing to link the latter to financial performance. Another empirical study Kibet, Makokha, and Namusonge (2016) linked financial performance to management commitment in selected schools but did not examine operating cash flow management. Therefore, it was imperative to evaluate the influence of operating cash flow management on financial performance of private secondary schools in Nakuru County.

## 3. Objective of the Study

The objective of the study was to examine the influence of operating cash flow management on financial performance of private secondary schools in Nakuru County, Kenya.

## 4. Literature Review

Operating cash flow is the measure of the cash amount generated from the normal business operations of an entity over a specified period of time. Also referred to as cash flow from operations (CFO), it is one of the measures which are widely employed in the financial literature (Bhandari, 2015). The operating cash flow is one of the three key cash flow activities illustrated in the statement of cash flows (SCF). It is also the most important component of SCF. The OCF is a representation of the cash generating ability of an enterprise from the core activities or operations of that business. There are a number of OCF-based ratios which have been fronted to analyze and evaluate an entity (Bhadari, 2003). In calculating the operating cash flow, the required elements include after-tax operating profit, depreciation and amortization, changes in current assets, and changes in current liabilities (Williamson, 2021). It is indicated that operating cash flows are easy to manipulate. The foregoing is realized through decreasing working capital, capitalizing operating costs, converting trade credit into cash, selling receivables, and also transferring trading securities (Aliakbari, Banimahd, Talebnia, & Roodposhti, 2015). Operating cash flow involves a summation of accruals and cash flow to yield net income or profit. Operating cash flow management is indicated by operating income, effects of taxes and change in working capital as illustrated by the conceptual framework on Figure 1.



**Figure 1: Conceptual Framework**

Figure 1 shows the association between operation cash flow management and financial performance. Operating income and working capital influence the leverage and profitability of the organization and its ability to grow the overall earnings (Fatihudin et al, 2018). For instance, positive cash flows provides opportunities for

expanding operations, increasing returns and promoting financial performance. Based on Abnormal Lee's Model, it is hypothesized that organizations manage reported cash flow from operations (CFO) when the incentives to do so are high. This is done by decomposing CFO into unexpected and expected elements where the expected CFO is modelled on the basis of postulations advanced by Dechow, Kothari and Watts (1998). The expected cash flow from operations is demonstrated as a linear function (equation) of sales and change in sales. The fact that the Lee's model is used to calculate operating cash flows underline its adaptability in the present research, specifically, on determining the influence of operating cash flow management on financial private secondary schools.

Empirical studies have been carried out on operating cash flow management and financial performance. A study conducted on both the Himalayan Bank Ltd and Global IME Bank Ltd sought to analyze the cash statements of the respective banks (Dhakal, 2019). The objective was to evaluate and compare cash flows of the two selected commercial banks. According to the research findings, it was found that operating cash flow was positive while financing cash flow was negative. The study, however, examined cash flow statement without zeroing on cash flow management practices. Financial performance as well as learning institutions were not addressed. A study that focused on the Nigerian banking sector empirically examined the firm size, age, and operating cash flow (Osagie, 2016). The objective was to ascertain the relationship between operating cash flow, size, and age. The study involved collection and analysis of panel data for 10 banks. According to the study findings, though positive, the bank size did not have a significant effect on operating cash flow. It was also revealed that age had a negative and insignificant impact on operating cash flow. The study recommended that it would be important to pay attention to other firm characteristics and how they determine operating cash flows.

A study by Muraya (2018) evaluated the effect of cash flow on financial performance of investment firms listed in the Nairobi Securities Exchange. The study was delimited to the period from 2012 to 2016. One of the specific objectives of the study was to examine the effect of operating cash flows on firm's profitability. Descriptive research design was adopted. The study employed secondary data. Five listed investment firms participated in the study. A census survey was embraced due to the apparently small study population. Operating cash flows (constituting working capital changes, operations cash flows like finance costs, and net profit) were established to have an insignificant relationship with financial performance (measured using profit after tax). The findings led to the conclusion that tax did not affect operating cash flows. A local study was conducted to assess the effect of management of cash flow on the financial performance of mutual funds in Kenya (Soet, 2020). Essentially, the objective was to put into perspective the effect of operating cash flow management on financial performance. It was found that operating cash flow management had a significant effect on return on asset. The major gap is the fact that the study focused on mutual funds as opposed to private learning institutions in Kenya.

Significant research gaps were identified from the past empirical studies. A study by Muraya (2018) established that the relationship between operating cash flows and financial performance of listed investment firms was not significant. Although the study examined the link between operating cash flows and financial performance, it focused on listed firms as opposed to learning institutions. Soet's (2020) study revealed that operating cash flow management had a significant effect on return on asset. The major gap is the fact that the study focused on mutual funds as opposed to private learning institutions in Kenya. These gaps formed the basis for the current study.

## **5. Methodology**

The study adopted an explanatory research design. This design enables an examination and explanation of relationships between study variables, especially in the case of cause-and-effect relationships (Saunders, Lewis, & Thornhill, 2009). In this study, the relationship between operating cash flow management and the financial performance was examined. The target population was 101 private secondary schools in Nakuru County. The unit of observation was the principals, managers/directors and bursars who took part in the study, and, therefore, constituted the accessible population. The study adopted a simple random sampling technique to obtain the 68 respondents from the 202 principals, managers/directors and bursars. Descriptive and inferential data analysis methods were employed. The descriptive statistics that were used to analyze data included frequencies, percentages, means, and standard deviations. Correlation and regression analyses were the inferential statistics that were used to establish relationship between operating cash flow management and financial performance. The following linear regression model guided the analysis.

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

Where;

**Y** represents 'financial performance'

**$\beta_0$**  represents 'constant'

$X_1$  represents ‘operating cash flow management’  
 $\epsilon$  represents ‘precision level’  
 $\beta_1$  represent ‘regression coefficient of independent variable’

## 6. Results

This section outlines the key descriptive and inferential findings regarding the influence of operating cash flow management on financial performance of private secondary schools in Nakuru County.

### 6.1 Influence of operating cash flow management on financial performance

The study sought to describe the influence of operating cash flow management on financial of private secondary schools in Nakuru County. Results are illustrated on Table 1.

**Table 1: Results of Descriptive Analysis for Operating Cash Flow Management**

Sub-constructs	SD (%)	D (%)	NS (%)	A (%)	SA (%)	Mean	Std Dev
Operating income of the school has been on the increase compared to the past financial year.	0	0	0	30 (53.6)	26 (46.4)	4.46	.503
The amount of individual taxes have generally remained the same.	0	1 (1.8)	0	39 (69.6)	16 (28.6)	4.25	.548
The schools has recorded considerable depreciation in the value of its assets.	5 (8.9)	40 (71.4)	1 (1.8)	7 (12.5)	3 (5.4)	2.34	.996
Some taxes were waived during the COVID-19 pandemic.	18 (32.1)	38 (67.9)	0	0	0	1.68	.471
The working capital has dropped over the past five years.	29 (51.8)	27 (48.2)	0	0	0	1.48	.504

The study that all the respondents were in agreement (agreed/strongly agreed = 100.0%) that operating income of the private secondary schools in Nakuru County had been on the increase compared to the preceding financial year. Almost all the sampled bursars and school proprietors/directors/managers concurred (agreed/strongly agreed = 98.2%) that the amount of individual taxed had generally remained the same. In respect of these propositions, the respondents, on average, were in agreement (4.00 < mean < 4.50) and also their views were largely similar (std dev < 1.000). On average, it was refuted that the schools had recorded considerable depreciation in the value of its assets (mean = 2.34; std dev = 0.996), and that some taxes were waived during the COVID-19 pandemic (mean = 1.68; std dev = 0.471). In general, the principals, bursars and directors/managers of the sampled schools strongly disputed that the working capital of their respective schools had dropped over the past five years (mean = 1.48; std dev = 0.504). Conspicuously, the respondents on the aforementioned views did not vary to a large extent (std dev < 1.000). The results shows that operating cash flow management influence financial performance of private secondary schools.

**Table 2: Results of Descriptive Analysis for Financial Performance**

Sub-constructs	SD (%)	D (%)	NS (%)	A (%)	SA (%)	Mean	Std Dev
The school has adequate capital to run its day-to-day activities.	0	0	0	28 (50.0)	28 (50.0)	4.50	.505
It is true to state that the school enjoys considerable liquidity.	0	0	0	29 (51.8)	27 (48.2)	4.48	.504
The school has low leverage (debt) levels.	5 (8.9)	4 (7.1)	0	21 (37.5)	26 (46.4)	4.05	1.257
The school has low solvency level.	5 (8.9)	7 (12.5)	0	32 (57.1)	12 (21.4)	3.70	1.205
The school's profitability has been on the rise over the past five years.	5 (8.9)	5 (8.9)	0	39 (69.6)	7 (12.5)	3.68	1.097

The results shown in Table 2 demonstrates the views of principals, bursars and/or proprietors/managers/directors of private secondary schools in Nakuru County on the financial performance of their respective learning institutions. Indicatively, the respondents were in absolute agreement (agreed/strongly agreed = 100.0%) that the schools had adequate capital to run their day-to-day activities, and that these schools enjoyed considerable liquidity. In their agreeing with the aforementioned statements, the respondents demonstrated minimal variance. Although they exhibited significantly varying views (std dev = 1.257), the respondents generally agreed that their schools had low leverage levels, that is, they had low debts (mean = 4.05). Most of the respondents agreed (57.1%) or strongly agreed (21.4%) that their schools had low solvency level. Lastly, it was observed that, inasmuch as the respondents either admitted (agreed = 69.6%) or strongly admitted (strongly agreed = 12.5%) that the profitability of the schools had been on the rise over the preceding five years, their views varied quite significantly (std dev = 1.097).

### 6.2 Correlation Analysis

Spearman rank correlation coefficient was used to analyze the relationship between operating cash flow management and financial performance of private secondary schools in Nakuru County. The relevant results are illustrated in Table 3.

**Table 3: Spearman Rank Correlation Analysis Results**

		Financial Performance
Operating Cash Flow Management	Correlation Coefficient	-.331*
	Sig. (2-tailed)	0.013
	n	56

The results shown in Table 3 indicate that there existed a negative, weak, and statistically significant correlation between operating cash flow management and financial performance of private secondary schools in Nakuru County ( $r = -0.331^*$ ;  $p = 0.013$ ). This meant that by increasing their operating cash flow, chances were that their financial performance would decrease substantially.

### 6.3 Regression Analysis

The effect of operating cash flow management variance on financial performance was examined using simple linear regression analysis. The results of this analysis is shown in Tables 4, 5 and 6.

**Table 4: Model Summary of Operating Cash Flow Management against Financial Performance**

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.263 <sup>a</sup>	.069	.052	.43273

a. Predictors: (Constant), Operating Cash Flow Management

According to the results shown in Table 4, the results of coefficient of determination ( $r^2 = 0.069$ ) indicate that operating cash flow management could explain 6.9% of variance in the financial performance of private secondary schools in Nakuru County.

**Table 5: ANOVA of Operating Cash Flow Management against Financial Performance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.750	1	.750	4.006	.050 <sup>b</sup>
	Residual	10.112	54	.187		
	<b>Total</b>	<b>10.862</b>	<b>55</b>			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Operating Cash Flow Management

The results of F-statistic ( $F_{1,54} = 4.006$ ;  $p = 0.050$ ) indicate that the sample results were statistically significant at  $p$ -value = 0.05. This meant there was a linear relationship between operating cash flow management and financial performance. As such the sample data fitted the model used to demonstrate the relationship between these two constructs.

**Table 6: Regression Coefficients of Operating Cash Flow management against Financial Performance**

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1	(Constant)	5.218	.571		9.146	<.001
	Operating Cash Flow Management	-.400	.200	-.263	-2.002	.050

a. Dependent Variable: Financial Performance

The results shown in Table 6 reveal that for every unit change in financial performance, operating cash flow was required to be changed by -0.400 unit while holding other factors constant. It was also found out that the effect of operating cash flow on financial performance of private secondary schools was statistically significant ( $t = -2.002$ ;  $p = 0.050$ ) at  $p$ -value = 0.05.

## 7. Conclusion

The study concluded that operating income of private secondary schools in Nakuru County had increased over the period of 5 years under survey. The study concluded that, regardless of the prevailing situations, the taxes the schools were required to pay remained the same. The assets of these schools withstood the shocks of time, be it COVID-19 pandemic or the 2017 general elections, both of which were witnessed during the period when the study was carried out. Operating cash flow management was concluded to be imperative to the financial performance of private secondary schools in Nakuru County.

## 8. Recommendation

The study recommended that the private secondary schools should ensure that they have sufficient operating income. This would enable them to run their day-to-day activities smoothly. The government should consider waiving some taxes to businesses (such as private learning institutions) during times of economic difficulties

such as the COVID-19 pandemic. The schools should diversify their sources of revenue so as to ensure that they have sufficient working capital at all times.

## References

- [1]. Aliakbari, M., Banimahd, B., Talebnia, G., & Roodposhti, F. R. (2015). The effect of abnormal operating cash flows on unconditional conservatism. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(1), 39-45.
- [2]. Andreas, A. (2017). Analysis of operating cash flow to detect real activity manipulation and its effect on market performance. *International journal of economics and financial issues*, 7(1).
- [3]. Bhadari, S. B. (2003). Pedagogical issues concerning analysis of the cash flow statement. *Journal of Financial Education*, 1-11.
- [4]. Bhandari, S. B. (2015). Operating cash flows versus free cash flows: An assessment of their usefulness in financial analysis. 2015 Proceedings of the Academy of Finance. Chicago, IL.
- [5]. Brigham, E. F., & Houston, J. F. (2021). *Fundamentals of financial management*. Cengage Learning.
- [6]. Dechow, P., Kothari, S. P., & Watts, R. (1998). The relation between earnings and cash flows. *Journal of accounting and Economics*, 25, 133-168.
- [7]. Dhakal, L. (2019). Cash flow statement analysis between commercial banks (with reference to Himalayan Bank Ltd and Global IME Bank Ltd). *American Journal of Industrial and Business Management*, 9, 2025-2033.
- [8]. Fatihudin, D., Jusni, & Mochklas, M. (2018). How measuring financial performance. *International Journal of Civil Engineering and Technology*, 9(6), 553-557.
- [9]. Hofstrand, D. (2016). Understanding cash flow analysis. Iowa State University, Ames, IA.
- [10]. Kibet, A. J., Makokha, E. N., & Namusonge, G. S. (2016). Effects of management commitment on financial performance of private schools: A survey of selected schools in Trans-Nzoia County, Kenya. *European Journal of Business and Management*, 8(30), 1-5.
- [11]. Kinyanjui, D., Kiragu, D., & Kamau, R. (2017). Cash management practices of financial performance of small and medium enterprises in Nyeri town, Kenya. *Saudi Journal of Business and Management Studies*, 2(3), 215-221. doi:10.21276/sjbms.2017.2.3.13
- [12]. Morin, D., & Maux, J. L. (2011). Black and white and red all over: Lehman Brothers' inevitable bankruptcysplashed across its financial statements. *International Journal of Business and Social Science*, 2(20), 39-65.
- [13]. Muraya, A. M. (2018). Effect of cash flow on financial performance of investment firms listed in the Nairobi Securities Exchange for the period 2012-2016. Unpublished Masters in Business Administration research project, United States International University - Africa, Chandaria School of Business, Nairobi, Kenya.
- [14]. Nagila, R. (2020). Kenya's education sector facing a crisis. Retrieved December 3, 2021, from <https://newsaf.cgtn.com/news/2020-07-27/Kenya-s-education-sector-facing-a-crisis> StygsJeLGU/index.html
- [15]. Namasambu, A. S. (2014). Investigation of factors affecting cash management in public secondary schools: A case of Mombasa County. Unpublished Master of Business Administration research project, Kenyatta University, Ruiru, Kenya.
- [16]. Osagie, O. I. (2016). Firm size, age and operating cash flow: Empirical standpoint on Nigerian banking sector. *International Journal of Advanced Academic Research*, 2(8), 95-103.
- [17]. Riggall, A., Kashhepakdel, E., Mullan, J., Rajagopalan, K., Sutoris, P., & Korin, A. (2021). Covid-19 and the non-state education sector. Nairobi, Kenya: Education Development Trust 2021.
- [18]. Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Harlow, England: Pearson Education Limited.
- [19]. Soet, M. A. (2020). Effect of management of cash flow on the financial performance of mutual funds in Kenya. Unpublished Doctor of Philosophy in Business Administration (Finance) thesis, Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya.

Rebecca Wangui Mwaura. "Operating Cash Flow Management and Financial Performance of Private Secondary Schools in Nakuru County, Kenya." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 13(5), 2022, pp. 19-24.