

## EFFECT OF CASH FLOW MANAGEMENT ACTIVITIES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS LISTED AT NAIROBI SECURITY EXCHANGE MODERATING ROLE OF BANK SIZE

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### ABSTRACT

Cash flow is the main aspect indicating financial health position of the firms. The cash flows take different dimensions from which outflow and inflow is expected. The different inflows and outflows are resulting to improvement of cash flows. Financial managers are ensuring cash flow is more than cash outflow in the firm. Performance of listed commercial banks measured by profit before tax in the 2016 indicated ksh 147.40 billion and the year 2017 profit was ksh 133.20 billion. This shows that there is a decline in financial performance shown by ksh 14.20 billion. The decreases in profit over the years were in corresponding to return on assets by 1.79% in the year 2016 and in 2017 indicated 3.99%. The study indicated that return on equity was different from the year 2017 with 20.6%, 2016 by 24.68% showing the poor performance. The declining aspects of financial performance of listed commercial banks were indicated return on equity and return on assets affect cash flow. The general objective of this study was to assess the effects of cash flow management activities on financial performance as moderated by bank size case of commercial banks listed. The specific objectives were; to examine the effects of operating activities on financial performance of commercial banks and to establish moderating role of bank size on the relationship between cashflow management activities and financial performance of commercial banks. The study adopted agency theory. Descriptive research design was employed by this study. The target population comprised of 12 listed commercial banks at Nairobi security exchange. Stratified random sampling was adopted to choose 11 listed commercial banks. The study used secondary data from financial reports through data collection sheet. The data was collected from financial reports published from 2016 to 2020. The study employed descriptive statistics using percentage, maximum, minimum, mean and standard deviation. Inferential statistics used correlation and regression analysis. The results were presented by tables. The study showed that operational activities had a strong and a positive significant effect on financial performance. The bank should increase operating activities for better improvement of financial performance.

**Key Words:** Operating Activities, Bank Size, Cash Flow

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## INTRODUCTION

Cash flow is at the heart of financial health status of firms. Firms' cashflow takes two dimensions, inflows and outflows. The difference between the two leads to cash flow. The financial manager must ensure that cash outflow does not outshine cash inflow. Cash flow management and financial performance measured by net profit management of receipts under operating activities, financing and investing activities influencing financial performance (Ward 2020).

Cash flow management helps banks to measure the receipts and payment of various transactions among different financial periods. It also turns to act as a strategy to determine cash balances and cash deficit causes with the view to give proper performance. Investors determine cash flow management activities to the use of financial instruments on their earnings and expenses and ability to create wealth from shareholders. The aspects of cash flow management are included with investing activities, financing and operating activities under which cash is managed. These cash management activities are expected to enhance financial performance of commercial banks appropriately (Rothbort 2018).

Cash flow management is vital to attainability and sustainability of a firm's liquidity. Poor management of available capital is dangerous to the financial health of the firm. Efficient and effective cash flow management systems in a firm help the managers to: keep spending within the budget, that decrease maximizes opportunity cost and borrowing resources of the company. Cash flows management include regular analysis of cash balances and challenges liquidity. This allows a firm to manage financial health of the cash flow management (Bari, Samantar and Muturi 2019).

Cash management can be categorized into inflows, outflow of cash and usage of cash. This included investing cash flows, financing and operating activities. Operating cash flow primarily is about firm income generated from general sources of cash. Cash transactions are the business components influencing profits before tax or loss after tax in banks (Odo & Theophilus 2021).

Kenton (2018), asserted that, operating cash flow are key in enhancing financial performance of commercial banks because the generation of positive cash flow from operations allows banks to remain viable over a long period of time. Successful cash flow operations in a company can be achieved when firms earn enough cash that meets their day to day operations, pay taxes and dividends.

Operational activities in firm depend largely on efficient liquidity management. Managers must ensure that at all times; the firms keep higher level of liquidity. The banks are investing return on assets from cash flows and payment of dividends, management of cash to the firm. The cash levels are managed by optimum management of cash with various dividends, working capital requirement and investment of capital structure (Karmranm, Ambreen and Zhao 2017).

Operating cash flow activities are dealing with related cash on the important aspect of the firms showing cash from operations. This has operating cost of the firm is associated with financial performance of the firm. These operating cash flows can affect financial performance of stock returns and profit after tax in the cash management in short term operations (Farooq, Khan, and Bilal & Rehnman 2017).

Cash flow management influence financial performance of insurance firms. Cash flow from operating activities has a significant direct influence on financial performance of the insurance companies. On the other hand, the size of the insurance company does not influence financial performance of the insurance firms. Change in the level of cash outflows under every activity ensures that a negative cash flow position and financial crises are averted. Enough feasibility study on investment ensures that insurance firms do not investment in projects that lower their profitability (Alslehat & Al-Nimer, 2017).

Financial performance is a pertinent measure to determine the well-being of a firm. It determines the capability of the company to utilize its resources efficiently and effectively to attain the desired result. Financial

performance is subjective measure which shows how firm apply assets from its primary mode of business and earn revenues. The financial performance of a firm can be arrived at through indicators such as profitability ratios and liquidity ratios (Kenton, 2021).

According to Memon, chen, Tauni & Ali (2018), banks size has a positive influence on financial performance and earnings per share. Large banks are able to raise funds more easily and at a relatively fair price unlike smaller banks. This gives a competitive advantage and increased financial performance. Bank size affected financial performance. Company size positively affects financial performance. Large banks have a easy access to cheap credit from lenders unlike Small ones. These funds are in return investment to generate more income that covers the interest to be paid and retain some for reinvestment. This leads to enhanced financial performance (Mbuguah, Mwambia & Baimwera, 2017).

Bank size and financial performance are directly correlated. Bank measures its size through number of shares and total assets. Access to credit, investment and financial performance depends on bank size. Although credit risk differs from one bank to other, large banks are in better position to deal with it unlike smaller banks (Okon, 2017).

### **Statement of the Problem**

Efficient and effective presentation of cash flow management activities with financing activities, investing cash flow activities, and operating cash flows moderated by bank size on financial performance of commercial banks listed.

Financial performance indicated by profitability were declining from profit before taxes in the 2016 with Ksh 147.4 billion while the year 2017 were KSh133.2 billion. This represented in decline in profitability by 14.2 billion. This indicated that return on asset decreased as compared to return on equity by 1.79 % from 3.99 in the year 2016 to 2.2% in the year 2017.

On the other hand, rerun on equity (ROE) contracted to 20.6 % in December 2017 from 24.68 % in December 2016. This huge decline in profitability and consequently ROA and ROE is linked to cash flow management (The Financial Stability Report, 2017).

Ugo and Egbuhuzor (2022), carried out a study on the effect of cash flow management on financial performance: evidence from the pharmaceutical industry in Nigeria. Independent variables were: operating cash flows, investing cash flows and financing activities cash flows. The study used a smaller sample size and analyzed secondary data collected through multiple regression analysis and the Pairwise Granger Causality tests. This study failed to apply descriptive statistics in data analysis. Additionally, Tinarwo, Sicha, and Machingambi (2019), did the study of the effect of cash flow management on profitability of medium size enterprises where independent variables were account records keeping, preparations of cash budgets, regular stock takes, business bank accounts, loans acquired, cash management practices and internal cash control. Ali and Mukhongo (2016) studied the effects of cash flow Management on Financial Performance of Small and Medium Enterprise in Mogadishu Somalia: a case study of Bakara market. The independent variables of the study were: cash Control, cash planning and liquidity Management. These studies, failed to study on operating activities. This study was carried out on the effects of cash flows management activities on financial performance of commercial banks moderated by bank size.

### **Objectives of the study**

The general objective was to assess the effect of cash flow management activities on financial performance of commercial banks listed at Nairobi security exchange moderating role of bank size. The study was guided by the following specific objectives;

- To determine the effect of operating activities on performance of commercial banks listed at Nairobi security exchange

- To determine the effect of bank size on the relationship between cash flow management activities and performance of commercial banks listed at Nairobi security exchange

The study tested the following research hypotheses;

- H<sub>01</sub>: Operating activities has no statistically significant effect on performance of commercial banks listed at Nairobi security exchange
- H<sub>02</sub>: Firm size has no statistically significant effect on performance of commercial banks listed at Nairobi security exchange

## **LITERATURE REVIEW**

### **Theoretical Review**

#### **Financial Life Cycle Theory**

Financial lifecycle theory was put forward by Mueller in 1972. The theory stated that financial life cycle theory is like agency cost theory conflicting with a free cash flows model in there are many challenges affecting financial life time at maturity stage. This is illustrates with investments decrease in cash flow opportunity significantly over the life cycle. The theory stated that the view of this theory is aimed at costs of cash flows and raising capital investment designs. Financial life cycle stated that the form of financial cash flows starts from concept, maturity, growth, shake outs and declines (Lemma and Rani 2017).

Financial life cycle assumed that cash flows expect effective profits of every period in stages of payment from net cash received. The second assumptions of this theory assumed that current firms are not well managed with their economic trends due to customer knowledge from cost incurred and revenue collected, thus, they affect operating cash flows attained. The theory assumptions were highly dependent on major investments firms to give and maintain the background of which cash flow from operations are taken, benefits of establishing performance is influenced by cost opportunities resulted from poor management of cash flows. Then finally, assumed that major firms can invest on cash received from project operations and net present values are affecting performance (Kajola, Adelewotan, and Onaolapo 2017).

The criticism of this theory opined that modern firms are improving their returns to increase profit margin and optimize investment of cash flow efficiency of the firms. Therefore, cash flow from operations are anticipated to grow positively and further can be argued by lifecycles theory succeeding investing cash flow from expected loss of the firms significant affected performance. Cash flows management improved financial performance by most sufficient assets. That is further being asserted that return of profits is large to the customer's level of income giving rise to cash flow management. Despite the growth of cash flows, there is decrease in financial performance of firms when at maturity process (Eyigege 2018).

The theory becomes relevance to the study as it explained how cash flows management can influence financial performance of commercial banks, similarly to other financial institutions; cash flows are influenced by concept, shakeout, decline, growth at maturity at a given time. At different stages commercial banks get involved in cash flow management and cash inflows by investing activities on financial performance. Expectation of more profits is maximized at cash flow management by operation, investments and financing activities. The theory explained how financing the firms can be valued at different stages which rate of increasing cash flows is achieved and still got shaken out.

### **Empirical Review**

#### **Operating activities and financial performance**

Kadhim, Daikh and Seed (2022) examined the effect of operating activities on financial performance in Tehran Security exchange. The study used descriptive research design and cause design. The also used systematic sampling approaches to calculate the sample size of 139 firms listed at Tehran stock exchange from

2014 to 2018. Secondary data was collected using annual report which was analyzed by F Lime test and regression analysis using excels and statistical packages. The study affirmed that there was statistically significant effect between earnings and operating cash flows. The study recognized that cash flows from operating activities affect profitability which has significant effect on performance. The study showed that cash flows can influence financial performance though, cash flows from operating influenced financial performance. The study recommended that management can improve operating cash flow to enhance financial performance measured by profit.

Elahi, Ahmad, UI haq and Saleem (2021) examined operating cash flow management on stability of commercial banks listed in Pakistan. The study employed descriptive research design and secondary data was used to collect data from financial reports using cash ratios. Stability of the commercial banks become dependent variables while operating cash flow is the independent variable from 20 listed commercial banks from 2011 to 2019 from Pakistan security exchange banks. The ordinary least square, random test effect model, Hausman test, descriptive, lagrange multiplier tests and correlation analysis showed that operating cash flow affect stability of commercial banks. The net cash margin had significant effect on financial performance of banks. Then, the study notes that cash flow from income profits and cash advances affect cash flow provisions of total assets significantly to stability of the commercial banks. The study recommends that commercial banks are eager to minimize cash outflow and improves stability of lending to shareholders financial performance.

Syaputri and Lumajang (2019), did a study on the operating activities cash flow effect on the performance of the market (Study in Industrial Goods Manufacturing Sector Consumption Listed in BEI 2016-2017). The study adopted a descriptive research design. The study applied purposeful sampling method to select a sample size of 21 form a target population of 43 listed manufacturing firms in Jakarta Stock Exchange. Secondary was obtained from published financial statements through descriptive statistics and inferential statistics were influenced financial performance. The study noted that cash flow operations affected market performance. Further, the study indicated that operating cash flow had a positive effect on market performance. It was concluded that there is insignificant effect on cash flows operating activities and market performance of listed manufacturing firms in Indonesia security exchange.

Olagunju, Ayodele and Kazeem (2022) studied the impact of operating cash flows management on financial performance of Nigeria. The study used expostfacto research design. Secondary data was collected by website account of the company and some Google account from 2015 – 2019. The study used correlation analysis to establish cash flows management and financial performance determined by return on assets. Cement firms are effective in cash flow management in Nigeria where investing cash flows from dividends and working capital resulted to financial performance. The study recommend that bank management to establish cash flow channels from operating activities, generate cash collection areas for adequate flow of cash to the firms and thus increased financial performance.

Osagie (2016), wanted to find out how Firm Size, Age and Operating Cash Flow are related: Empirical Standpoint on Nigerian Banking Sector. Descriptive research design helped the study to describe bank size and age on financial performance of 5 years. The 10 listed commercial banks were analyzed by secondary data collected using panel least square analysis. The study showed that bank size had significant influence on performance of listed companies using operating cash flows. However, bank age had not statistically significant affect financial performance. The study recommended that banks should focus on diversified cash flows towards significant effect of operating cash flows.

Kipngetch, Tenai and Kimwolo (2021) determined the influence of operating cash flow on performance of firms listed in Nairobi security exchange. A positivism research philosophy and explanatory designs showed that secondary data was sufficient to determine annual reports performance of 2007 to 2019. Census sampling method was applied to select 29 non-financial firms. Both descriptive and inferential statistics were applied to analysis collected data. The findings of the study revealed that operating cash flow positively and significantly

affected stock returns for listed banks. Additionally, the study noted that operating cash flows had a positive and significant effect on performance. The study concluded that operating cash flow information affects stock returns. The study recommends that companies ought to improve assortment of operating cash flows through prudent utilization of cash resources since it enhances performance.

Soet, Muturi & Oluoch (2018) examined the effects of cash flow management from operating activities in Kenya case of mutual funds firms. The study used causal design and used panel data analysis tool to analyze secondary data collected from 2011 to 2016 of 22 firms listed. The study used operating cash flow and financial performance. The result of correlation analysis showed that there is significant relationship between cash flow management and performance measured by return on assets and return on equity respectively. The study recommends that bank management should come up with cash flow management and financial performance.

### **Banks size and Financial Performance**

Mansour, Musaed and Ali (2021), did a study on the effects of bank size on financial performance of Kuwait commercial bank. The study employed with secondary data included financial reports from 2008 – 2018. The study used 10 banks for the sample size. Descriptive analysis, Ordinary least squared (OLS) regression and correlation analyses were applied to analyze data. The findings of the study revealed that, the size of banks had a negative and insignificant correlation with profitability. Further, the study found out that shareholder's equities and bank profitability had positive and statistically significant relationship.

Appah and Tebepah, (2021) studied the effects of bank size and financial performance of deposit money banks in Nigeria. The study employed ex post facto and correlational research design. The sample size of the study consisted of 10 banks selected through simple random sampling technique. Secondary data used was collected financial statements and Central Bank of Nigeria Statistical Bulletin. The collected data was analyzed by descriptive, inferential and panel data analysis which indicated that there was statistical significant effect on bank size and financial performance shown by return on assets from business. Bank size had positive effect to financial performance implied that depositing money to the bank increased cashflows due to capitalization and financial performance.

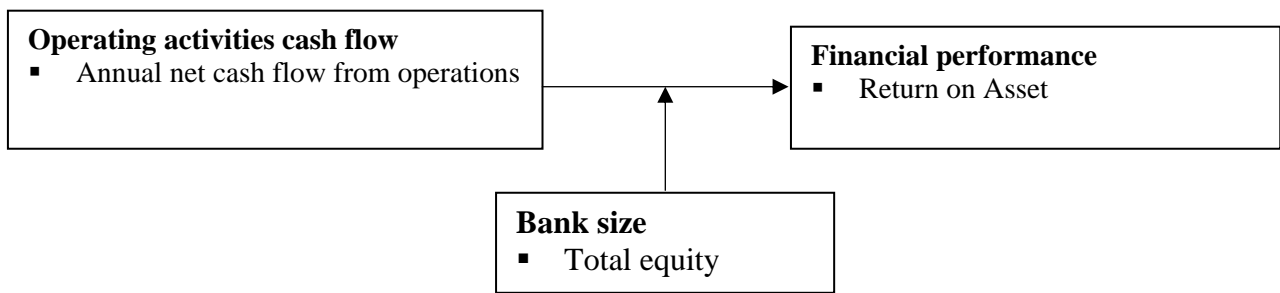
Teimet, Lishenga, Mwangi and Duncan, (2019) assessed the effect of bank size on profitability of commercial banks in Kenya. The study applied a cross sectional research design. Returns on assets and long-run equilibrium were independent variables of the study. The applied secondary data gathered from annual published financial records for commercial banks covering 2009 to 2018 period. Census sampling method was used to arrive at 42 commercial banks in Kenya. Correlation and regression analysis were used to analyze data. The study identified that, banks size had a positive and substantial effect on returns on assets. Further, the study discovered that. The study concluded that the size of a bank affected profitability and hence, banks' consolidation and other expansion strategies improve bank profitability.

Muhindi and Ngaba (2018) did a study on the effects of bank size on the financial performance of Kenyan banks. Number of branches, capital base, and number of customer deposit, loans and advances were independent variables of the study. Secondary used in the study was collected form annual financial reports from 2012 to 2016. Collected data was analyzed through correlation and regression analyses. The study indicated bank size had positive relationship with financial performance. Additionally, the study indicated that, larger banks recorded higher profitability as measured by ROA as opposed to medium and small.

### **Conceptual framework**

The conceptual framework is described by Limam & Mohammed (2018) who refers a conceptual structure used to bring together a number of related concepts to explain a certain event and also give a wider understanding of the research problem. Zikmud (2010) adds that a conceptual infers or explains specific illustration under which the study is anchored. Mcgrath (2009) describes the conceptual framework as the items from concepts are specifically and categorized by various variables under which integrate and explanations.

Operating activities is the independent variables and dependent variables (financial performance of commercial banks in Kenya. Financial performance was measured by return on assets.



**Independent Variables**

**Moderating Variable**

**Dependent Variables role**

**Figure 1: Conceptual Framework**

**Source: Researcher (2022)**

Cash flows from operating activities indicate how the firms are using available cash to meet its daily obligations. Daily usage of cashflow can either make or deplete cash available. Net cash flows from operating expenses to improve income generated. This, leads to a declined financial performance. On the other hand, positive net operating cash flows indicates that expenses form daily expenses are less than its revenues. Positive net cash flows from operations enhance financial performance of commercial banks. Bigger banks have easy access to cheaper credit form well established financial markets unlike smaller banks. Additionally, large banks have competitive advantage of reaping from economies of scale unlike smaller. Bigger banks stand a better chance of earning more form investments as opposed to smaller banks. Hence, they can increase their financial performance.

## METHODOLOGY

The study adopted a descriptive research design. The study was carried out on 12 listed commercial banks in Nairobi Securities Exchange Kenya. The study adopted stratified random sampling design. The sample size was 11 listed commercial banks in Nairobi Securities Exchange. Yamane’s 1967 formula was used to determine the sample size. The study used published financial statement from 2016 to 2020 to collect secondary data. The data was extracted from financial statements using data collect sheets for 5 years financial period.

Data analysis is the process used to make meaningful information. It summarizes patterns, summaries and statistical method to affect financial performance (Sahu 2013). This involved editing, coding and data entries to statistical data analysis tools. This involves coding, editing, data entry, and monitoring the whole data processing procedure. In This study, both descriptive and inferential statistical methods were used.

The study employed descriptive statistics by use of frequency, minimum, maximum, means and standard deviations in analyzing data. The result was presented by tables and figures for easy interpretation. The study used Pearson moment of correlations and multiple regression analysis. Correlation was used to determine the relationship while regression the effects.

## RESULTS AND DISCUSSIONS

### Descriptive Statistics

The objective was to assess the effect of cash flows activities on financial performance of listed commercial banks at Nairobi exchange securities. The study analyzed operating activities with financial performance using return on assets. Bank size is the moderating variable for the study and secondary data using data collection sheets from 2016 to 2020 for 5 years.

## Operating activities

The study carried out descriptive analysis to determine operating cash flow management on financial performance of commercial banks listed at Nairobi security exchange. Table 1 showed that results as presented. The study established that, ABSA bank had mean of 0.078 with standard deviation of 0.0277, BK Group had mean of 13.3413 with standard deviation 36.25156, Diamond Trust Bank had mean of 3.0196 with standard deviation 14.79629, Equity bank had mean 0.0583 with standard deviation 0.02932, Housing Finance Group had mean 1.8825 with standard deviation 4.23548, I& M Holding mean of 0.2294 and standard deviation 16.09608, KCB Group had mean 0.0119 and standard deviation 0.01807.

**Table 1: Operating activities**

|                           | N | Minimum | Maximum | Mean     | Std. Deviation |
|---------------------------|---|---------|---------|----------|----------------|
| ABSA Bank Kenya           | 5 | .01     | .03     | .078     | .0277          |
| BK Group                  | 5 | -15.27  | 75.27   | 13.3413  | 36.25156       |
| Diamond trust bank        | 5 | -15.37  | 24.99   | 3.0196   | 14.79629       |
| Equity bank               | 5 | .02     | .10     | .0583    | .02932         |
| HF Group                  | 5 | -4.86   | 5.69    | 1.8825   | 4.23548        |
| I& M Holdings             | 5 | -13.63  | 30.00   | 6.2294   | 16.09608       |
| KCB Group                 | 5 | -.01    | .04     | .0119    | .01807         |
| NCBA group                | 5 | .83     | 48.39   | 21.3047  | 18.19315       |
| Stanbic Plc               | 5 | -8.49   | 435.82  | 86.2075  | 195.49197      |
| Standard chartered Kenya  | 5 | -5.20   | .04     | 1.4771   | 2.30317        |
| Cooperative bank of Kenya | 5 | -6.80   | 33.07   | 14.5390  | 15.26424       |
| Average mean              |   |         |         | 13.46812 |                |

**Source: Field data 2023**

NCBA Group had mean of 21.3047 with standard deviation 18.19315, Stanbic had mean 86.2075 with standard deviation 195.49197, standard chartered bank had mean 1.4771 with standard deviation 2.30317 and cooperative bank had mean 14.5390 with standard deviation 15.26424. The study noted that Stanbic holding had highest mean as well as ABSA bank had lowest mean. This means Stanbic Holdings had highest mean of operating cash flows and thus high financial performance. This noted that ABSA bank had lowest operating cash flow and hence low financial performance.

Additionally, the study indicated that some commercial banks such as BK Bank, diamond trust bank, Equity bank, HF Group had mean value less than average mean value 13.46812 while NCBA Bank group, Stanbic bank holding, and cooperative bank of Kenya, has high mean than average mean value of 13.46812. Hence, these commercial banks had highest operating activity cash flow and financial performance. The study concurred with Syaputri & Lumajang (2019) who noted that operating cash flows management improved financial performance. The correlation analysis showed that a positive correlation to financial performance of commercial banks listed.

## Bank size

The study carried out descriptive analysis to determine the bank size of listed commercial banks in Kenya. The findings of the study were presented in the table below. The study showed that ABSA Bank had mean .0616 with standard deviation .03951, BK bank had mean 181.2191 with standard deviation 64.34607, Diamond trust bank Kenya had mean 58.2530 with standard deviation 8.88197, Equity bank group had mean 35.0931 with standard deviation 48.05794, HF Group had mean 10.3725 with standard deviation 1.15221, I& M holding had mean 17.3404 with standard deviation 23.81062, KCB had mean 40.5835 with standard deviation 55.49476, NCBA Group had mean 48.1310 with standard deviation 20.06752, Stanbic holdings had mean 16.6484 with standard deviation 22.75219, standard chartered bank of Kenya had mean 18.0827 with standard deviation 24.69731 and Cooperative bank of Kenya had mean 56.5255 with standard 32.30182.



**Table 2: Bank size**

|                           | N | Minimum | Maximum | Mean     | Std. Deviation |
|---------------------------|---|---------|---------|----------|----------------|
| ABSA Bank Kenya           | 5 | .04     | .13     | .0616    | .03951         |
| BK Group                  | 5 | 108.49  | 259.34  | 181.2191 | 64.34607       |
| Diamond trust bank        | 5 | 45.88   | 68.31   | 58.2530  | 8.88197        |
| Equity bank               | 5 | .10     | 93.14   | 35.0931  | 48.05794       |
| HF Group                  | 5 | 8.56    | 11.45   | 10.3725  | 1.15221        |
| I& M Holdings             | 5 | .05     | 47.02   | 17.3404  | 23.81062       |
| KCB Group                 | 5 | .11     | 105.97  | 40.5835  | 55.49476       |
| NCBA group                | 5 | 30.35   | 72.55   | 48.1310  | 20.06752       |
| Stanbic Plc               | 5 | .04     | 42.96   | 16.6484  | 22.75219       |
| Standard chartered Kenya  | 5 | .05     | 45.66   | 18.0827  | 24.69731       |
| Cooperative bank of Kenya | 5 | .05     | 80.41   | 56.5255  | 32.30182       |
| Average mean              |   |         |         | 43.8464  |                |

**Source: Field data 2023**

The study showed that BK Group had the highest mean while ABSA bank had lowest mean value. Therefore, BK group has the largest size and hence high financial performance, in addition it was indicated that ABSA bank had lowest size and thus low financial performance.

Further, the study showed that some commercial banks means were less average mean value, Equity bank group holding, HF Group, I& M holding, KCB group, Stanbic holding, standard chartered bank, they had low bank size and therefore financial performance is low. This was opposed by Diamong trust bank, KCB Group, NCBA and cooperative bank of Kenya whose value was above average mean hence large bank size in terms of their total equity resulted high financial performance.

### Financial performance

The study carried out descriptive analysis to determine the bank size of listed commercial banks in Kenya. The findings of the study were presented by table below. The study showed that ABSA Bank had mean of .0204 with standard deviation 0.00913, BK had mean 0.0360 with standard deviation 0.00529, diamond trust bank had a mean of 0.0252 with standard deviation 0.01439, Equity group had mean 0.0318 with standard deviation 0.00669, HF Group had mean 0.0018 with KCB group had mean 0.290 with standard deviation 0.00557, NCBA group had mean 0.0182 with standard deviation 0.00626, Stanbic holding had mean of 0.0194 with standard deviation 0.00270, standard chartered bank Kenya had mean 0.0398 with standard deviation .03160 and cooperative bank of Kenya had mean 0.0246 with standard deviation 0.01141

**Table 3: financial performance**

|                           | N | Minimum | Maximum | Mean    | Std. Deviation |
|---------------------------|---|---------|---------|---------|----------------|
| ABSA Bank Kenya           | 5 | .01     | .03     | .0204   | .00913         |
| BK Group                  | 5 | .03     | .04     | .0360   | .00529         |
| Diamond trust bank        | 5 | .01     | .04     | .0252   | .01439         |
| Equity bank               | 5 | .02     | .04     | .0318   | .00669         |
| HF Group                  | 5 | -.04    | .03     | .0018   | .02562         |
| I& M Holdings             | 5 | .03     | 34.16   | 16.1428 | 15.36628       |
| KCB Group                 | 5 | .02     | .03     | .0290   | .00557         |
| NCBA group                | 5 | .01     | .03     | .0182   | .00626         |
| Stanbic Plc               | 5 | .02     | .02     | .0194   | .00270         |
| Standard chartered Kenya  | 5 | .02     | .10     | .0398   | .03160         |
| Cooperative bank of Kenya | 5 | .01     | .04     | .0246   | .01141         |
| Average mean              |   |         |         | 1.4899  |                |

**Source: Filed data 2023**

The study noted that standard chartered bank had lowest mean, and thus high financial performance as compared with HF Bank with lowest financial performance with return on assets. Further, it shown that HF group, equity bank, I & M holding bank, KCB Group, standard chartered bank and Stanbic holding Banks are the common commercial banks with the highest mean than their average mean value which indicated 1.4899, hence they good financial performance.

### Correlation analysis

The study used correlation analysis to determine the relationship between investing, operating and financing activities and using Pearson moment of correlations. The study showed that correlation analyses by the results were shown by table 4.

**Table 4: Correlation analysis**

|                             |                     | operating activities | financial performance (ROA) |
|-----------------------------|---------------------|----------------------|-----------------------------|
| Operating activities        | Pearson correlation | 1                    | .402**                      |
|                             | Sig. (2-tailed)     |                      | .002                        |
|                             | N                   | 55                   | 55                          |
| Financial performance (ROA) | Pearson Correlation | .402**               | 1                           |
|                             | Sig. (2-tailed)     | .002                 |                             |
|                             | N                   | 55                   | 55                          |

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

**Source: filed data 2023**

The study established that, operational activities had a strong and positive and significant relationship with financial performance  $r=.402^{**}$ ,  $P=.002 < 0.01$ . The findings here in were similar to the findings of Kipngetich, Tenai and Kimwolo (2021), who noted that, operating cash flow positively and significantly affected stock returns for listed firms at Nairobi security exchange.. Additionally, the study indicated that, accounting and operating cash flow had a positive and significant effect on stock returns.

### Simple Regression

The study conducted simple regression to test the effects of the relationships between variables (operating activities and financial performance of listed banks in Kenya. The results were presented as shown.

### Operating activities and financial performance

The study sought to determine the effect of operating activities on financial performance using simple regression analysis as presented by table 5.

**Table 5: Model summery**

| Model | R    | R square | Adjusted R | Std. error of estimate |
|-------|------|----------|------------|------------------------|
| 1     | .402 | .161     | .145       | 1.05402                |

**Source Field data (2023)**

a. Predictors (constant) operating activities

The study showed that R 0.402 implied that operating activities had moderate relationships with financial performance of commercial banks listed at Nairobi security exchange. The study further showed that R square in the model was 0.161 and thus the change in operating activities resulted to 16.1% in financial performance. The study results concurred with Elahi, Ahmad, UiHaq and Saleem (2021) who noted that operating cash flows had significant relationships with financial performance. Net interest margin affect financial performance of banks.

**Table 6: Anova**

| Model |            | Sum of squares | Df | Mean square | F      | Sig  |
|-------|------------|----------------|----|-------------|--------|------|
|       | Regression | 11.316         | 1  | 11.316      | 10.186 | .002 |
| 1     | Residual   | 58.881         | 53 | 1.111       |        |      |
|       | Total      | 70.197         | 54 |             |        |      |

**Source: Filed data 2023**

The study showed that the F value was 10.186, p 0.002 less than 0.05, which implied that the model was fit to predict the relationship. Further, the results showed operating cash flow activities had statistical significant effect on financial performance of banks. This was in agreement with Osagie (2016) who found that cash flows from operating activities affected financial performance of commercial banks.

**Table 7: Regression coefficients**

| Model |                      | Unstandardized coefficients |           | Standardized coefficients | T     | Sig  |
|-------|----------------------|-----------------------------|-----------|---------------------------|-------|------|
|       |                      | B                           | Std error | Beta                      |       |      |
| 1     | (constant)           | .1058                       | .175      |                           | 6.051 | .000 |
|       | operating activities | .270                        | .008      | .402                      | 3.192 | .002 |

**Source: Field data (2023)**

a. Dependent variable: Financial performance (ROA)

The study indicated that operating cash flow activities has direct significant effect on financial performance of commercial banks listed at Nairobi security exchange Kenya.  $B = 1.058$ ,  $t = 3.192$ ,  $p = 0.002$   $p < 0.05$ . While other factors remain constant, operating activities can vary financial performance of commercial banks listed at Nairobi security exchange Kenya by 27% in improvement. The results did not agree with the study of Kadhim Daik and Saerd (2022) who found that earning activities are not significant to financial performance of commercial banks listed at Nairobi security exchange Kenya. Then, the study showed that operating cash flows activities had a positive and significant relationship

Further, the study identified that analyst coverage and operating activity cash flows had significant effect on financial performance of commercial banks listed at Nairobi security exchange Kenya

The simple regression model is as shown below

$$Y = \beta_0 + \beta_{X_1}X_1 + \epsilon$$

$$Y = .1058 + .270X_1$$

### Moderating Variables

Moderating variable was analyzed with multiple regression model where independent variables operating and dependent variable financial performance of commercial banks in Kenya. The results were shown by table 8.

**Table 8: Model Summary**

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .968 | .938     | .933              | .29582                     |

**Source: Field data 2023**

a. Predictors: (Constant), firm size, operating activities

The study showed that,  $R = 0.968$ . The study revealed that, independent variables (operating activities had a direct correlation with financial performance of listed commercial banks in Nairobi securities exchange. In

addition, the study noted that; R square of the study was .938. Thus, changes in financing activities resulted 93.8 % changes in financial performance of listed commercial banks in Kenya.

**Table 9: ANOVA**

| Model |            | Sum of Squares | Df | Mean Square | F       | Sig. |
|-------|------------|----------------|----|-------------|---------|------|
| 1     | Regression | 65.822         | 4  | 16.455      | 188.047 | .000 |
|       | Residual   | 4.375          | 50 | .088        |         |      |
|       | Total      | 70.197         | 54 |             |         |      |

**Source: field data 2023**

a. Dependent Variable: financial performance (ROA)

b. Predictors: (Constant), firm size, operating activities

The results in table 9 indicated that F test =188.047 p=0.000 < 0.05. Thus, the model was fit to predict the result under this study.

Further, the study showed that moderating variable bank size had statistically significant effects on operating activities on financial performance of commercial banks listed at Nairobi security exchange.

**Table 10: Coefficients**

| Model |                      | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                      | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant)           | .037                        | .341       |                           | .108  | .915 |
|       | operating activities | .162                        | .018       | 2.445                     | 8.962 | .000 |
|       | firm size            | .010                        | .007       | .095                      | 1.423 | .161 |

**Source Field data 2023**

a. Dependent Variable: financial performance (ROA)

The study established that, when other factors are held constant, financial performance was 3.7%. In addition, the study identified that, bank size had a positive and significant effect on the relationship between operating activities and financial performance of listed commercial Banks in Kenya. B= .162, t= 8.962, P=.000< 0.05. Therefore, a change in bank size can result to change in financial performance with operating cash flow activities. The study of Syapturi & lumajang (2019) showed that bank size had significant effect on the moderating relationship with financial performance of commercial banks B= 0.122 T=3.511 P=0.001<.05. Further, it was established that, bank size had an inverse and significant effect on the relationship between financing activities financial performance of listed commercial Banks in Kenya. B= -.741, t=-9.407, P=.000< 0.05. Thus, increase in bank size led to change in financial performance in insignificantly B= .010,t=1.423,P = .161>0.05. According to Kipingetich et al (2021), cash outflow and financing activities forms affect cash management. Further, it noted that financial performance is the major aim of cash from operation activities and how cash received are linked with firm's management of transactions.

The multiple regression models is as shown below;

$$Y = \beta_0 + \beta_1 X_1S + \beta_2 X_2S + \beta_3 X_3S + \epsilon$$

Where Y=financial performance

$$X_{1S} = .162$$

$$X_{2S} = .122$$

$$X_{3S} = -.741$$

$\epsilon$  =Error term,

$$\beta_0 = .037$$

$\beta_1, \beta_2, \beta_3$  is the regression coefficient

$$Y = .037 + .162 X_1 + .122 X_2 - .741 X_3$$

## Hypotheses Testing

The summary of the hypothesis were shown;

**H0<sub>1</sub>:** Operating cash flow has no statistically significant effect on financial performance of commercial banks listed in Kenya.

The study identified that, operating activities had a positive and significant effect on financial performance of listed commercial Banks in Kenya.  $B = .147$ ,  $t = 9.773$ ,  $P = .000 < 0.05$ . This meant that, if operating activities change by a single unit, financial of listed commercial banks in Kenya varied directly and substantially. Thus, the null hypothesis was rejected

**H0<sub>2</sub>:** Firm size has no statistically significant effect on relationship between cash flows management and financial performance of commercial banks listed in Kenya.

Finally, it was noted that bank size had direct and insignificant on financial performance of listed commercial banks. Thus, increase in bank size led to change in financial performance in insignificantly  $B = .010$ ,  $t = 1.423$ ,  $P = .161 > 0.05$ . Hence, the null hypothesis was accepted.

## CONCLUSIONS AND RECOMMENDATIONS

The study concludes that operating cash flows had positive strong significant relationships with financial performance. The change in operating cash flow activities can result to significant change in financial performance of commercial banks listed in Kenya. Further, the study concludes that there is a positive significant effect on financial performance. This implied that when cash flow from operations changes by a unit the financial performance improves.

The study concluded that, BK Group Plc Ord 0.80 was the largest bank while ABSA Bank Kenya Plc Ord 0.50 smallest in terms of total equity. BK Group Plc Ord 0.80 was the largest bank in terms of size hence, higher financial performance. In addition, the study concluded that, the size of banks for instance, equity bank, HF bank, standard chartered, KCB has less mean than average mean value 43.86464. Equity bank, HF, I&M, KCB Bank, standard chartered and Stanbic group had low bank size and hence low financial performance. In addition, the study concluded that to Diamond Trust Bank Kenya Ltd Ord 4.00, KCB Group Plc Ord 1.00, NCBA Group Plc Ord 5.00, and The Co-operative Bank of Kenya Ltd Ord 1.00 whose mean was above the average mean. hence, they were large in terms of total equity hence, had higher financial performance.

Further, it was concluded that bank size had direct and insignificant on financial performance of listed commercial banks. Thus, increase in bank size led to change in financial performance in insignificantly.

The study recommended that, banks ought to increase cash flow from operating activities through increasing cash from sales, increase collection of accounts receivables, reduce frequency of interest payment periodically, reduce, collect tax refunds in time, reduce salaries, increase income from leases. This would enhance cashflow from operating activities leading to improved financial performance since it has direct linkage. Additionally, the study recommended commercial banks listed can increase cash flows from operating activities on financial performance.

The study established that, operational activities had a strong and positive and significant relationship with financial performance. The change in cash from operating activities affects financial performance of commercial banks. Relatively, the study indicated that investing cash flows had positively strong significant relationships with financial performance listed banks. The variation of operating activities by one unit can lead to significant increase in financial performance of commercial banks. The results agreed with used agency theory which focused on the relationship between agents and principals. In principle, managers are expected to manage cash, invest and finance firms prudently so that, the wealth of shareholders is maximized.

### **Suggestions for further study**

The study suggested that more study should be carried out on the effect of cash flow activities practices on financial performance of listed non-financial firms in Kenya.

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