

Effect of Cashflow on the Networth of Construction Firms in Nigeria

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ABSTRACT

The main objective of this study is to ascertain the effect of Cashflow on the Networth of construction firms in Nigeria. The specific objectives are to: determine the relevance of operating activities to Networth of construction firms in Nigeria; ascertain the relevance of investing activities to Networth of construction firms in Nigeria; and to verify the relevance of financing activities to Networth of construction firms in Nigeria. The study adopted the ex-post facto research design and the data for analysis were obtained from the annual reports and financial statements of accounts of two (2) sampled firms from the construction industry in Nigeria, namely Julius Berger Nig. Plc and MISTA Nig. Ltd. The data collected covered 10 years (2009-2018) for Julius Berger and MIXTA Nig. Ltd and were then pooled and analysed using SPSS v 20.0, the tools of analysis being correlation coefficient (r), coefficient of determination (R^2), F-ratio (ANOVA), t-test (for the tests of hypotheses), and the regression analysis for fitting the models. Findings revealed that operating activities cost, investing activities costs and financing activities cost have no significant relevance to Networth of construction firms in Nigeria. The conclusion was that the construction industry in Nigeria, though bereft of adequate amount of data to accomplish the aim of this study, has at least opened a new dimension about this contemporary issue in research. That would be a welcome dimension in our effort to improve the Building and Construction sector for development. Based on the findings, the study recommends that Managers should adopt cost reduction practices that would increase efficiency of operations that could translate to higher Networth; more investment activities should be encouraged by Construction firms so as to consolidate on the present situation; and the managements of Construction firms are advised to increase the financing

activities in the industry so as to improve total assets. This will grow more assets and reduce the size of liability of the firms in the future. The implication is that since all the three components do not have significant effect on the Networth of construction companies in Nigeria, it might be difficult to generalize the findings. Therefore, it might need further investigation using larger sample size and different analytical approaches to ascertain the effect of Cashflow on Networth of Building and Construction firms in Nigeria.

Keywords: Cashflow, Networth, Construction Firms, Nigeria

INTRODUCTION

Background of the Study

The Nigerian construction industry is vast and complex, ranging from road construction to building of houses, to bridges and culverts. Others are the construction of sky scrapers, stadiums, ports, harbours, dams and irrigation channels, parks and flyovers, and so on. Some of the big players in the construction industry are multinationals while some others are local private contracting companies. The largest concentration of construction firms in Nigeria seem to be on buildings of houses and roads because of the special needs of the people and the government of the country.

Nigeria is a big country and the economy is very large and fast growing with citizens that need houses for accommodation and businesses, own or personal buildings for offices, warehousing and commercial or industrial purposes around the country. Individuals, firms and investors always find it very lucrative to invest in construction business and this sector is a major contributor to GDP of the economy. The sector contributed 752,833.66 NGN Million in the second quarter of 2019, i.e. from 671,448.37 Million in the first quarter of 2019. GDP from construction in Nigeria averaged 578,835.22 NGN Million from 2010 until 2019, reaching an all-time high of 752,833 NGN Million in the second quarter of 2019 and a record low of 369,190.91 NGN Million in the third quarter of 2010 (Trading Economics, 2019).

There are 17 construction firms in Nigeria (see appendix) out of which there are 7 top ones that are distinguished by reason of the ability to accomplish projects and deliver on time. These are Julius Berger Nigeria plc, Reynolds Construction Company, Setraco Nigeria Limited, Costain West Africa, Monier Construction company, Brunelli Construction company (Nigeria) Limited, and Dantata & Sawoe Construction company (Nigeria) Limited.

Murray (2019) opines that "Cash flow is the money that is moving (flowing) in and out of your business in a month. Although it does seem sometimes that cash flow only goes one way - out of the business - it does flow both ways." The activities associated with cash inflows and outflows are basically related to the use of cash to fund the business and the returns that accompany such effort. These include operating activities, investment activities and financing activities.

The desire for good and motorable roads is an essential concern of every good government to the extent that it usually features prominently during campaign for party elections into political offices in Nigeria. Roads construction is a very huge commitment exclusively reserved for the government. It constitutes an essential part of the provision of social amenities and infrastructural development of the country and any successful government.

The annual budgets of Nigeria attach so much importance to contracts on the repairs and construction of old and new roads respectively, which run into billions of naira (cash outflow). The 2020 budget estimate shows Federal revenue of N8.155trillion out of which N2.46trillion is budgeted for capital projects. Further breakdown shows that Works and Housing is allotted N262 billion.

The construction firms in collaboration with the Federal Ministry of Works and Housing, as well as Federal Road Maintenance Agency (FERMA) and other states ministries of works and housing development, are greatly involved in these activities. Notable, however, is the fact that government Cashflow is mainly for social expenditure which is totally different from firms' cash flow. Government provides the infrastructure for economic development but the focus of firms is on profitability.

The Networth of a firm is determined by the profitability that comes from Cashflow activities. It is the difference between total assets and liability of a firm. Firms are interested in the use of funds to generate other funds after paying all the costs associated with business but government expenditure is for social satisfaction and not about profitability. The difference between cash inflow and cash outflow is what determines profitability. A favourable Cashflow is what adds value to firms' Networth while an unfavourable Networth decreases firm's value. The inability to sustain favourable cash flow is inimical to firm's Networth and growth.

Statement of the Problem

The subject of Cashflow and Networth is an interesting and very contemporary one that features in the daily dealings of business organizations in Nigeria and elsewhere around the world. It is interesting based on what Murphy (2020) says about cash flow statement (CFS) that it measures how well a company manages its cash position, meaning how well the company generates cash to pay its debt obligations and fund its operating expenses. The cash flow statement complements the balance sheet and income statement and is a mandatory part of a company's financial reports. Similarly, Gocardless Limited (2017) learning how to calculate net cash flow can help you determine how much cash your company generates and whether its cash flows are positive or negative, providing you with insight into your short-term financial viability. Murphy (2020) also states that the CFS allows investors to understand how a company's operations are running, where its money is coming from, and how money is being spent. The CFS is important since it helps investors determine whether a company is on a solid financial footing. Creditors, on the other hand, can use the CFS to determine how much cash is available (referred to as liquidity) for the company to fund its operating expenses and pay its debts.

The sustainability of a firm's business life wire is hinged on both its Cashflow and Networth. It is usually the expectation of management to always have a favourable annual Cashflow and an increasing Networth. This expectation is usually challenged by current and several economic, environmental and competing cost variables in our contemporary Nigeria. The construction industry in Nigeria as a whole seems to be now enmeshed more than ever in this situation now especially because the firms' cash flows appears to be in doubt or uncertain and the Networth is not properly addressed. Again, construction companies in Nigeria are mainly private limited companies that do not make public their annual reports and statements of accounts. Some

publish their annual reports in foreign currencies making it difficult to have a uniform conversion rate for the purpose of study or research.

Several authors like Fodio, Onah and Oba (2013), Nwanyanwu (2015), Ilori, Oyedoyin, and Ojo (2018), Liman & Mohammed (2018) and so on, have all tried to write on the Cashflow and financial performance of companies but not all of them had categorically addressed Cashflow and Networth of firms in the construction industry in Nigeria. Investigations on the relationship between free cash flow and stock return in Tehran (Galogah et al, 2013); The relationship between cash flow and financial performance of accepted companies in Tehran (Ghanbari et al, 2015); The relationship between free cash flow and the firm performance at the Tehran Stock Market (Heydari, 2010); Financing Construction as per cash flows and cash farming (Kenley, 2003); Cash flow and organizational performance in Nigeria with regards to hospitality and print media industries perspectives (Nwanyawu, 2015); Financial performance of locally-owned construction firms in South-Western Nigeria (Oladimeji and Aina, 2018); Investigation into the effect of components of a 4 part model of cash flow statement on operational performance of firms enlisted in the Tehran Stock Exchange (Tariverdi, Amanolahi and Faal, 2014); Appraisal of the construction management practice in Nigeria (Ugwu and Attah, 2016), are some of the studies that have been conducted in this dispensation.

In all of this, one could not find the subject matter of Cashflow and Networth of construction firms treated. It was mainly Cashflow and financial performance of firms or Cashflow and organizational performance that were also focused mainly on foreign experiences but not Nigeria. This is the problem that this study is focused on, with a view to showing the relevance of Cashflow to Networth of construction firms in Nigeria.

Objectives of the Study

The main objective of this study is to ascertain the effect of Cashflow to the Networth of construction firms in Nigeria. The following specific objectives are used to achieve the major objective, namely to:

- i) Determine the effect of Operating Activities on Networth of construction firms in Nigeria.
- ii) Ascertain the effect of Investing Activities on Networth of construction firms in Nigeria.
- iii) Verify the effect of Financing Activities on Networth of construction firms in Nigeria.

Research Questions

The following research questions guided the realization of the specific objectives:

- i) What effect does Operating Activities have on Networth of construction firms?
- ii) How does Investing Activities affect the Networth of construction firms in Nigeria?
- iii) What effect has Financial Activities on Networth of construction firms in Nigeria?

Statement of Hypothesis

- (i) Operating activities do not have significant effect to the Networth of construction firms in Nigeria.
- (ii) Investing activities do not have significant effect to the Networth of construction firms in Nigeria.
- (iii) Financial activities do not have significant effect on the Networth of construction firms in Nigeria

Significance of the Study

The outcome of this study is significant to the management of construction firms in Nigeria. The construction firms would be able to adopt some of the recommendations for improvement of the sector.

Analysts would find it interesting as it is going to expand the horizon for gaining more knowledge and understanding on the workings of Cashflow and Networth of construction firms and related industries in Nigeria.

The findings from this study would add to knowledge of researchers in similar fields. This means that the outcome of this study is going to build the background for further study of related fields.

Scope of the Study

The study was carried out in Nigeria and the period covered is 2009 to 2018. It covered the three components of Cashflow proxy by operating, investing and financial activities (which constitutes the independent variables) as well as the Networth of the construction companies (proxy by Net Assets of the construction firms) namely, Julius Berger plc and MIXTA Nigeria.

Limitations of the Study

The study is limited by the dearth of data for analysis. Construction companies in Nigeria are mostly private limited companies that are not under obligation to publish their statements of accounts and reports for public consumption. Data for 2009-2013 were not available in one of the company's reports (namely, MIXTA Nig. Plc) because the company did not publish its financial statements for public consumption in those years. Therefore, we have inputted the data for that period by using interpolation methods.

Construction firms in Nigeria are mostly Multi-Nationals that report their activities in foreign currencies. Therefore, the sample size was affected by the fact that it was not possible to collect data on more firms due to inconsistency in conversion rates for the period studied. In all, the researcher only succeeded in using two construction firms as samples. These are Julius Berger and MIXTA.

REVIEW OF RELATED LITERATURE

Conceptual Review

Cashflow Activities

Kenton (2019) states that "Cashflow is the net amount of cash and cash-equivalents being transferred into and out of a business. At the most fundamental level, a company's ability to create value for shareholders is determined by its ability to generate positive cash flows, or more specifically, maximize long-term free cash flow." The understanding of Cashflow statement helps one to determine a firm's liquidity, flexibility and total performance.

According to Kenton (2019), a favourable Cashflow is an indication that a firm's liquid assets are increasing, enabling it to settle debts, reinvest in its business, return money to shareholders, pay expenses and provide a buffer against future financial challenges. Companies with strong financial flexibility can take advantage of profitable investments. They also fare better in downturns, by avoiding the costs of financial distress.

Corporate Finance Institute, CFI (2015) gives several types of cash flow that will enable one to have a solid understanding of what each of them is, namely:

i. Cash from Operating Activities is Cash that is generated by a company's core business activities that do not include cash flow from investing. This is found on the company's statement of cash flows.

ii. Free Cash Flow to Equity (FCFE) represents the cash that is available after reinvestment back into the business (capital expenditures).

iii. Free Cash Flow to the Firm (FCFF) is a measure that assumes a company has no leverage (debt) and it is used in financial modeling and valuation.

iv. Net Change in Cash is the change in the amount of cash flow from one accounting period to the next. This is usually found below the cash flow statement.

Cashflow is used for several things in both operating a business and in performing financial analysis. In fact, it's one of the most important metrics in all of finance and accounting. The metrics are **Net Present Value which is a Cashflow (CF)** used in calculating the value of a business by building a DCF Model and calculating the net present value (NPV); **Internal Rate of Return, a Cashflow** used for determining the IRR an investor achieves for making an investment; **Liquidity** used for assessing how well a company can meet its short-term financial obligations; and **Cash Flow Yield** which is a Cashflow that measures how much cash a business generates per share, relative to its share price, expressed as a percentage.

Others are Cash Flow per Share (CFPS) which is the cash from operating activities divided by the number of shares outstanding; **Price/CF Ratio** which is the price of a stock divided by the cash flow per share (CFPS), sometimes used as an alternative to the Price-Earnings or P/E ratio; **Cash Conversion Ratio which** is the amount of time between when a business pays for its inventory (cost of goods sold) and receives payment from its customers; **Funding Gap which** is the measure of the shortfall a company has to overcome (how much more cash it needs); **Dividend Payments, a Cashflow** used to fund dividend payments to investors; and **Capital Expenditures which is the CF** used to fund reinvestment and growth in the business.

Operating Activities

According to Hayes (2019) operating activities are the functions of a business directly related to providing its goods and/or services to the market. These are the company's core business activities, such as manufacturing, distributing, marketing, and selling a product or service. Operating activities will generally provide the majority of a company's cash flow and largely determine whether it is profitable. Some common operating activities include cash receipts from goods sold, payments to employees, taxes, and payments to suppliers. These activities can be found on a company's financial statements and in particular the income statement and cash flow statement.

Operating activities are the daily activities of a company involved in producing and selling its product, generating revenues, as well as general administrative and maintenance activities. The operating income shown on a company's financial statements is the operating profit remaining after deducting operating expenses from operating revenues.

Bragg (2019) also defines operating activities as “a classification of cash flows within the statement of cash flows. Items classified within this area are an entity’s primary revenue-producing activity, so cash flows are generally associated with revenues and expenses.”

Investing Activities

Investing activities are the second main category of net cash activities listed on the statement of cash flows and consist of buying and selling long-term assets and other investments. The two main activities that fall in the investing section are long-term assets and investments. Long-term assets usually consist of fixed assets like vehicles, buildings, and machinery (My Accounting Course, 2019).

The cash flow statement of a company provides details of its investing activities. These relate to the increase or decrease in a company’s cash balance as a result of the sale or the purchase of long-term assets such as plant and equipment (Crush the CPA Exam, n.d.). Positive cash flows are usually a good sign because they indicate that the firm is generating more cash than it is spending. However, negative cash flow is not always a bad sign. That’s because the company may be investing in long-term assets that will yield benefits for many years into the future.

Financing Activities

Market Business News (n.d.) states that “financial activities are activities that companies undertake to help achieve their economic goals and objectives. They include events and transactions that affect a business’ equity and long-term liabilities. Anything to do with the movement of money, i.e., cash inflows and outflows, is a financial activity. Purchasing and selling assets or products, organizing accounts, and maintaining accounts, for example, are financial activities. Arranging loans, selling bonds or stocks are also financial activities.”

Murphy (2019) explains that “Cash flow from financing activities (CFF) is a section of a company’s cash flow statement, which shows the net flows of cash that are used to fund the company. Financing activities include transactions involving debt, equity, and dividends. Cash flow from financing activities provides investors with insight into a company’s financial strength and how well a company’s capital structure is managed.”

Networth

According to Jeff (2019) Networth is a figure that is calculated by subtracting the sum of your liabilities from the sum of your assets. In other words, it would be left over if you were to pay off all of your debts with what you own outright. In doing so, all assets and liabilities or mortgages are considered.

Ganti (2019) opines that Networth is a quantitative concept that measures the value of an entity and can be applicable to individuals, corporations, sectors and even countries. Simply stated, net worth is the difference between assets and liabilities. Positive net worth means that assets exceed liabilities while negative net worth describes the opposite scenario. That means it gauges the financial health of a firm and provides a snapshot of an entity’s current financial position. Accordingly, Ganti (2019) also believes that positive and increasing Networth indicates good financial health, while a decrease would be cause for concern as it might be indicative of a decrease in assets relative to liabilities.

Ganti (2019) also explains that the best way to improve one's net worth, whether it is an individual or corporation, is to either reduce liabilities while assets either stay constant or rise, or increase assets while liabilities either stay constant or fall.

Theoretical Framework

The study was guided by the Agency Theory.

Agency Theory

Agency theory was initiated and developed by Jensen (Jensen & Meckling, 1976). Jensen (1986) argues that the motives of managers are typically not aligned with those of shareholders and if managers have plenty of cash at their disposal, they use these assets to gain personal benefits rather than raise the worth of the company. Therefore, in the model managers have an agenda of accumulating assets in order to gain discretionary control over the firm's investment decisions (Jensen & Meckling, 1976). In this setting, the management of the firm decides whether cash is held by the firm or paid to its shareholders. In order for managers to pursue their own interests, cash constitutes the most suitable form of financing, as having to raise external funds usually requires that the firm provides the lender with insights into how the money is going to be used.

Agency theory predicts that firms with higher free cash flow results to increase in firm's cash holdings. The explanations of agency theory are largely inconsistent with the changes or adjustments in cash holdings of the firm. That was the view of Harford (1999) when it was opined that results suggest that firms that hold excessive funds attempt to acquire other firms.

Empirical Review

Mohammadi, Kardan, and Salehi (2018) used Panel data and combined data regression model to investigate the relationship between cash holdings, investment opportunities and financial constraint with audit fees in Iran. The results obtained from the statistical analysis of research hypotheses indicated that there is a significant relationship between cash holdings and audit fees. Furthermore, the relationship between cash holdings, financial constraints and audit fees was significant. In addition, there was no significant relationship between cash holdings, investment opportunities and audit fees.

Nakhaei and Jafari (2015) used Pearson Correlation Method and multiple regressions to evaluate the relationship between capital structure and free cash flows and financial performance in companies listed on TSE during 2009 to 2013. The results of the study show that capital structure had inverse and significant association with evaluation criteria of financial performance (return on asset, annual stock return and economic value added) and firm size. Also, there was a direct and significant correlation between free cash flow and evaluation criteria of financial performance (return on asset, annual stock return and economic value added) and firm size.

Ugwu and Attah (2016) carried out a study to identify factors that influence construction management practice in Nigeria construction industry and to elicit perceptions/ranking of the severity using relative importance index of the various factors. The study adopted survey method and fifty-seven (57) factors were identified, grouped into nine (9) categories, evaluated and ranked from the construction actor's perspectives. 108 questionnaires were distributed to

the key construction actors as follows: 45 to contractors, 33 to consultants and 30 to clients. Out of these questionnaires distributed, 92 (85%) were received as follows: 40 (88.9%) from contractors, 28 (84.8%) from consultants and 24 (80%) from clients as respondents. The degree of agreement between parties regarding the ranking of factors was determined according to Kendall's Coefficient of Concordance and the survey findings from three target groups (contractors, consultants and clients) indicate that the most important factors that influence management of construction projects are conflicting design information, effective co-ordination of resources, critical path method, materials availability, setting timeliness, civil strife of riots, sense of belonging and identification with the project team, and lack of construction management knowledge and known work progress.

Oladimeji and Aina (2017) appraised a decade (2004-2013) of annual financial statements of 58 locally owned construction firms' (LOCOFs') financial statements on turnover, fixed assets, gross profit and after-tax profit to assess their financial performance in the Nigerian construction industry. The purposive sampling technique was used for sample selection. A review of the possible effect of the research findings on LOCOFs' psychosocial environment was undertaken and it was found that LOCOFs were categorized as micro scale construction contracting business enterprises. It was found that LOCOFs' financial performance was less than the performance of similar construction firm types and profits were not necessarily influenced by the cost of its investments on fixed asset but rather on firms' turnover. The paper recommended more funding of infrastructural developmental projects and better patronage of LOCOFs which will positively influence firms' turnover, profit and the psychosocial well-being of organisation and personnel.

Liman and Mohammed (2018) used descriptive Statistics, Correlation analysis as well as regressions techniques to examine the impact of operating cash flow and corporate financial performance of listed conglomerate companies in Nigeria over a period of 10 years (2005 to 2014). Five out of six listed conglomerate companies were studied. The result showed that there is a positive and insignificant impact between cash flow from operating activities (CFO) and financial performance proxy by ROA, while the impact is positive and significant when financial performance was proxy by ROE of the listed conglomerate companies in Nigeria. The control variable size and financial leverage have positive and negative significant impacts on ROA respectively, while the impact on ROE is positive and insignificant. The study recommended that although increasing financial leverage reduces agency cost associated with equity, listed conglomerate companies in Nigeria should not rely more on financial leverage because excessive leverage has a negative impact on financial performance and increases risk of bankruptcy. These companies should set a policy so as to keep bankruptcy cost at a lower level and also Management efficiency is required in managing costs, increasing efficiency and financial performance of listed Conglomerate companies in Nigeria.

Nwanyanwu (2015) examined the relationship between Cashflow and organization performance from the perspective of the hospitality and print media industrial sectors of the economy using descriptive statistics and Pearson's product moment coefficient of correlation and employing the statistical package for social sciences (SPSS). From a pilot study, forty five small and medium enterprises (SMES) in these sectors were sampled. Data were collected through questionnaire. Results indicated a significantly strong positive relationship between Cashflow position and net profit. Consequently, Cashflow position determines the extent of net

profit performance of organizations in the hospitality and print media. Considering advances in technology and quality of service delivery which create competition, hospitality and print media organizations should develop strategies to enhance their cash inflow.

Ab Halim, Haniff, Junoh, and Osman (2014) used qualitative (ratio analysis and interviews) and quantitative (questionnaire) research methods that led to the concept of triangulation and conducted a study to achieve three objectives. First, was to identify the failure factors of Bumiputera contractors by using ratio analysis. For this analysis, four financial variables were chosen, which are capital liquidity, profitability, debt, and the efficiency of financial management/assets. The second objective identifies the causes of failure associated with the four financial variables. The third objective identifies the elements of effective financial management. Respondents to the qualitative study consisted of 6 Bumiputera construction firms, while the quantitative data had 54 respondents. The findings showed that the firms had shortage of capital to finance projects, received small profit from construction projects, carried higher debt, and were less efficient in asset management. The study confirmed that capital problems experienced by the firms resulted from the small capital at the start of their business, and the late payment from the clients (progress and final payment). Small profit margin was due to the increase in the prices of building materials, low price of contracts, and delays in project completion. The analysis also revealed that the higher debt of firms was caused by delays of the payment of the project owner, small capital base, and late receipt of advance payments.

Ilori, Oyedoyin, and Ojo (2018) surveyed construction clients in order to evaluate sources of cash flow and its implications on construction projects in Nigeria. A total of fifty-four questionnaires were administered to the respondents with a response rate of 92%. The data obtained were analyzed using frequency distribution and mean item score. The findings indicate that major source of cash inflows is payments received from clients/customers for services rendered and goods supplied while major source of cash outflows is payment for stock and raw materials as well as payments for wages and workers' salaries. Also, the main reasons for cash flow problems are; delayed payments and difficulty in obtaining financial aid. The lines of credit used by the parties to augment cash flow problems are; Bank loan/Bank draft and retained profit. The major implication of adverse cash flow includes; capital lock-up and delay in completion. Cash flow management can be improved through regular submission of valuations, taking full advantage of credit facilities and insisting on accuracy in valuations and certificate. The study concluded that; clients should timely honour interim certificates, avoid too much of variations and contractors are advised to raise finance from bank to solve the immediate cash flow problem and make repayment of such loans as soon as they receive payment from the clients.

Tariverdi, Amanolahi and Faal (2014) studied about the effect of 4 part cash flow statement elements on operating performance. Research hypotheses were tested by using parametric tests and Pearson's correlation coefficient. Findings showed that there is a positive and meaningful relationship between cash flows resulting from investments' return and return on equity (ROE) and return on assets (ROA). Also there was a negative and meaningful relationship between cash flows resulting from dividends for financing and return on equity (ROE) and return on assets (ROA). Also the results showed that there was not a meaningful relationship

between cash flows resulting from financing activities and return on equity (ROE) and return on assets (ROA).

Abdulrazaq (2015) aim was to develop models for predicting the impact of risk factors on Cashflow (CF) forecasts predicted by contractors in Nigeria. A list of risk factors that impact on CF forecasts were identified through the review of existing literature on cash flow management, cash flow forecasting, risks in cash flow forecasts and factors contributing to project delays. The identified risk factors were investigated in relation to the likelihood of occurrence and the impact on CF forecasts, if they occur. Data was collected via a questionnaire survey of contractors operating in the Nigerian construction industry and two (2) sets of questionnaire surveys were conducted in which contractors were asked to rank on a scale of 0 to 5 the likelihood of occurrence/impact of the risk factors. The responses obtained were subjected to analysis with the use of IBM SPSS (version 21) software. The findings from the research imply that several risk factors have different degrees of occurrence on cash-in and cash-out forecasts in, and different degrees of impacts on cash-out forecasts in the Nigerian construction industry. The study recommended that construction contractors practicing in the Nigerian construction industry should expect positive variations to their “cash-out” flow forecasts during the execution of projects.

Fodio, Onah and Oba (2013) examined the effect of cash flow on investment levels of quoted manufacturing firms in Nigeria. The objective was to identify if investment is sensitive to internally generated cash flow. The study covered the investment levels of 16 listed firms over the period 2004-2008. The study employed OLS for the analysis and the results showed a significant positive relationship between investment and cash flow, suggesting that investment is affected by the availability of internal finance. The study established that firm size text has significant negative effect on cash flow-investment relationship. The results also showed that the industrial classification have varying effects on cash flow-investment relationship. While chemical and paints and building materials have positive effect on investment-cash flow relationship, conglomerates, food, beverages and tobacco have negative effect on the relationship between internally generated funds and investment. However, only chemical and paints had a significant positive effect on the cash flow-investment nexus. Thus, the study established among other things that investment levels of firms can be affected by the availability of internal finance and industry type and that a misalignment of investment with internal/characteristic factors can be detrimental.

Olusegun and Michael (2011) determined the causes and effects of abandonment of projects in Nigeria. Structured questionnaires were distributed to quantity surveyors, civil engineers, architects, builders, and contractors that have practiced in the South Western Nigeria (Ondo, Osun, Ogun, Ekiti, Oyo, and Lagos States) for at least ten years. The sixty-two well completed questionnaires formed the basis of the study and were analyzed by the Relative Importance Index (R.I.I.). The result from the study showed that the causes of project abandonment as inadequate project planning; inadequate fund, inflation, bankruptcy of contractor, variation of project scope, political factor, death of client, incompetent project manager, wrong estimate, inadequate cost control, faulty design and delayed payment. It was also found that project abandonment causes disappointment to the populace/users, low living standard, wastage of resources, reduction in employment opportunities, and decrease in tempo of construction activities, decrease in revenue accruing to government, and difficulty in attracting foreign loans.

It was then recommended among things that, to drastically reduce these negative effects, clients should undertake adequate project planning, possess enough funds for the project, engage contractor that have strong financial stand for their project.

Akinsulire (2018) assessed the major causes of delay, to evaluate the resultant effects of delay, to investigate the methods of minimizing delay in construction project and developing a model on the relationship between cost overruns and time overruns. The study was carried out based on literature review and questionnaire survey. The statistical tools used for the analysis were bar charts; pie charts; percentages; mean score ranking. The degree of agreement among ranking was tested using the F-test. The study examined a total of thirty three possible causes of delay, seventeen resultant effects of delays and fifteen methods of minimizing construction delay were identified based on literature review. The questionnaires were distributed to the targeted respondents in Lagos Nigeria construction firms. The objectives of the study were achieved hence the top most important factors that contributed to the causes of delay are financially related such as financial/cash flow difficulties; financial difficulties faced by contractors and public agencies and failure to pay for completed works. Time overruns and cost overruns remained the most common effects of delays in construction projects. The study recommended that to minimize delays in construction projects it has been investigated that the top two most effective methods of minimizing construction delay includes: having a reliable sources of funding for the project and consistent payment of interim certificates as and at when due.

El-Sawalhi and El-Riyati (2015) examined the overhead costs management practice in the construction industry in the Gaza Strip. It was observed that the awareness of construction companies and techniques followed by the contractors in estimating the overhead costs, affecting factors and mitigation measures was examined. Structured questionnaires supported by personal interviews were used to collect information. Sixty-three contracting companies working in the construction industry in the Gaza Strip were surveyed. The analyses showed a good awareness of the concept of overheads costs and its components. It was found that factors affecting the estimation of overhead costs are the management capacity of the company and its policy, led by the company's experience and ability to implement the project within the time frame. There were other factors related to the working environment of the project, especially the closure of commercial crossings of the Gaza.

Enshassi, Mohamed and Abushaban (2009) carried out a study to identify the factors affecting the performance of local construction projects; and to elicit perceptions of their relative importance. A comprehensive literature review was deployed to generate a set of factors believed to affect project performance. A total of 120 questionnaires were distributed to 3 key groups of project participants; namely owners, consultants and contractors. The analysis indicated that all 3 groups agree that the most important factors affecting project performance are: delays because of borders/roads closure leading to materials shortage; unavailability of resources; low level of project leadership skills; escalation of material prices; unavailability of highly experienced and qualified personnel; and poor quality of available equipment and raw materials. Based on these findings, the paper recommended that: project owners must work collaboratively with contractors and facilitate regular payments in order to overcome delays, disputes and claims; project participants should actively have their input in the process of decision-making; and continuous coordination and relationship between project participants

are required through the project life cycle in order to solve problems and develop project performance.

Rahman and Sharma (2020) investigated the effect of cash flow from operations (CFOs) on the financial performance of insurance and manufacturing companies in Saudi Arabia. The data were extracted from companies' annual reports by considering Return on Assets (ROA) and Return on Equity (ROE) as dependent variables, CFOs as an explanatory variable, firm size (SIZE) and Leverage (LEV) as control variables, and an industry dummy. The results report a positive and significant association between financial performance (ROA and ROE) and operating cash flows (CFOs), and a negative association for SIZE and LEV. Therefore, the study concludes that the firms' operating cash flows in the insurance and manufacturing sectors in Saudi Arabia affect financial performance.

Table 2.3.1: Summary of Literature Review

Author/Date	Title of Work	Methodology	Years covered	Findings
Enshassi, Mohamed & Abushaban (2009)	An overhead costs assessment for construction projects at Gaza Strip.	Survey Design	2009 only	The most important factors affecting project performance are: delays because of borders/roads closure leading to materials shortage; unavailability of resources; low level of project leadership skills; escalation of material prices; unavailability of highly experienced and qualified personnel; and poor quality of available equipment and raw materials.
Olusegun & Michael (2011)	Abandonment of Construction Projects in Nigeria: Causes and Effects.	Survey Design	2011 only	The causes of project abandonment are inadequate project planning; inadequate fund, inflation, bankruptcy of contractor, variation of project scope, political factors, death of client, incompetent project manager, wrong estimate, inadequate cost control, faulty design and delayed payment. Project abandonment causes disappointment to the populace/users, low living standard, wastage of resources, reduction in employment opportunities, and decrease in tempo of

				construction activities, decrease in revenue accruing to government, and difficulty in attracting foreign loans.
Fodio, Onah & Oba (2013)	Impact of cash flow on investment levels in quoted Nigerian manufacturing firms	Ex-post facto design	2004-2008	Investment is affected by the availability of internal finance. Firm size text has significant negative effect on cash flow-investment relationship; Industrial classifications have varying effects on cash flow-investment relationship.
Tariverdi, Amanolahi & Faal (2014)	The effect of components of a 4 parts model of cash flow statement on operational performance in firms enlisted in Tehran Stock Exchange	Ex-post facto design	2007-2011	Results showed that there was a positive and meaningful relationship between cash flows resulting from investments' return and return on equity (ROE) and return on assets (ROA). Also there was a negative and meaningful relationship between cash flows resulting from dividends for financing and return on equity (ROE) and return on assets (ROA). Also the results showed that there is not a meaningful relationship between cash flows resulting from financing activities and return on equity (ROE) and return on assets (ROA)
Table	2.3.1			
Ab Halim, Haniff, Junoh, & Osman (2014)	Financial performance & the management issues of Bumiputera construction firms in the Malaysian Construction Industry.	Survey and Historical Designs	2014 only	The firms had shortage of capital to finance projects, received small profit from construction projects, carried higher debt, and were less efficient in asset management.
Nwanyanwu (2015)	Cash flow and organizational	Survey Design	2015 only	There was a strong positive relationship between Cashflow position and net

Table	performance in Nigeria: Hospitality and print media industries perspectives.			profit. Cashflow position determines the extent of net profit performance of organizations in the hospitality and print media.
El-Sawalhi & El-Riyati (2015)	An overhead costs assessment for construction projects at Gaza Strip	Survey Design	2015 only	The analyses showed a good awareness of the concept of overheads costs and its components. Factors affecting the estimation of overhead costs are the management capacity of the company and its policy, led by the company's experience and ability to implement the project within the time frame. Other factors are the closure of commercial crossings of the Gaza.
Nakhaei & Jafari (2015)	Survey of the Relationship between Capital Structure and Free Cash Flow with Financial Performance of Companies Listed in Tehran Stock Exchange	Ex-post facto Design	2009 -2013	Capital structure had inverse and significant association with evaluation criteria of financial performance and firm size. Also, there was a direct and significant correlation between free cash flow and evaluation criteria of financial performance (return on asset, annual stock return and economic value added) and firm size.
Abdulrazaq (2015)	Developing models for predicting the impact of risk factors on construction contractors' cash flow forecasts in Nigeria	Survey Design	2015 only	Construction contractors' cash-out forecasts vary with the actual expenditure; several risk factors have different degrees of occurrence on cash-in and cash-out forecasts in, and different degrees of impacts on cash-out forecasts in the Nigerian construction industry
Ugwu & Attah (2016)	An appraisal of construction management	Survey design	2016 only	The survey findings indicate from three target groups (contractors, consultants and clients) agree that the most important factors that

	practice in Nigeria			influence management of construction projects are as follows: conflicting design information, effective co-ordination of resources, critical path method, materials availability, setting timeliness, civil strife of riots, sense of belonging & identification with the project team, lack of construction management knowledge and known work progress.
Oladimeji & Aina (2017)	Financial performance of locally-owned construction firms in South-Western Nigeria.	Ex-post facto Design	2004-2013	Local construction firms LOCOFs' financial performance was less than the performance of similar construction firm types and profits were not necessarily influenced by the cost of its investments on fixed asset but rather on firms' turnover.
Akinsulire (2018)	Effects of delay on construction project delivery.	Survey Design	2018 only	Time overruns and cost overruns remained the most common effects of delays in construction projects.
Liman & Mohammed (2018)	Operating cash flow and corporate financial performance of listed conglomerate companies in Nigeria	Ex-post facto Design	2005 – 2014	There is a positive and insignificant impact between cash flow from operating activities (CFO) and financial performance proxy by ROA, while the impact is positive and significant when financial performance was proxy by ROE of the listed conglomerate companies in Nigeria.
Ilori, Oyedoyin, & Ojo (2018)	Evaluating sources of cash flow and its implications on construction projects.	Survey Design	2018 only	Major source of cash inflows is payments received from clients/customers for services rendered and goods supplied while major source of cash outflows is payment for stock and raw materials as well as payments for wages and

				workers' salaries. The main reasons for cash flow problems are; delayed payments and difficulty in obtaining financial aid.
Mohammadi, Kardan, and Salehi (2018)	The relationship between cash holdings, investment opportunities and financial constraint with audit fees	Ex-post facto design	2008–2015	There is a significant relationship between cash holdings and audit fees. Furthermore, the relationship between cash holdings, financial constraints and audit fees was significant. In addition, there was no significant relationship between cash holdings, investment opportunities and audit fees.
Rahman & Shama (2020)	Cash flows and financial performance in the industrial sector of Saudi Arabia	Ex-post facto design	2014-2018	The results report a positive and significant association between financial performance (ROA and ROE) and operating cash flows (CFOs), and a negative association for SIZE and LEV.

Source: Researcher's compilation, 2019.

After reviewing the available literatures and works of certain authors as shown in table 2.3.1, the researcher found that all the literatures under review did not cover the subject matter which is Cashflow activities and Networth of Nigerian construction companies for the period (2009-2018). This is the gap that this study has intended to close and to add knowledge to Accounting research.

METHODOLOGY

Research Design

The study employed the archival or historical research design whereby the annual statements and reports of the sampled firms are used as sources of data collection. The data used are secondary and were not directly meant for the purpose of this study per say.

Area of Study

The study focused on the building and construction sector in Nigeria with particular emphasis on the firms' operating activities and the Networth of the firms. The independent variables covered in this study are operating activities cost, investing activities cost and financing activities cost while the dependent variable is the Networth of the firms under study for the period of ten years, being 2009-2018.

Population and Sample Size

The population of study is the Nigerian construction industry with about 17 listed firms (see Appendices) out of which the purposive sampling method was used to select 2 firms being Julius Berger Plc and MIXTA only, based on the availability of data and popular participation in contract handling in Nigeria. All other firms are either publishing their reports in foreign currencies or do not make their reports public.

Model Specification

The study employed the simple regression technique of analysis. The models are as follows:

$$\text{LogNW}_i = \beta_0 + \beta_i(\text{LogOPAC}_i) + \mu \quad (\text{i})$$

$$\text{LogNW}_i = \beta_0 + \beta_i(\text{LogINVAC}_i) + \mu \quad (\text{ii})$$

$$\text{LogNW}_i = \beta_0 + \beta_i(\text{LogFINAC}_i) + \mu \quad (\text{iii})$$

Description of the Variables

The variables are described as follows:

LogNW_i is the log of Networth of construction firm (proxy by net assets of the relevant years)

LogOPAC represents the log of the cost of operating activities

LogINVAC represents the log of the cost of investing activities

LogFINAC represents the log of the cost of financing activities

β₀ is the constant or intercept

β_i is the slope or variation in the cost of various activities during the period

μ is the error margin associated with model estimation

Method of Data Analysis

The study used the SPSS v 20.0 as the tool of analysis with particular application of tools like correlation coefficient (r), coefficient of determination (R²), F-ratio (ANOVA) and t-test (for the tests of hypotheses), and the regression model for fitting the coefficients.

DATA PRESENTATION AND ANALYSIS

Data Presentation

Table.1: Pooled Data of the Sampled Construction Companies

Name of Company	Observation	OPAC N'000	INVAC N'000	FINAC N'000	NW N'000
Julius Berger Nig. plc	1	126,679,425	35,642,825	4,761,662	7,722,184
"	2	128,269,545	25,967,929	11,138,888	7,617,009
"	3	123,995,847	8,526,957	17,919,347	10,092,141
"	4	185,421,848	25,933,374	17,864,853	14,521,681
"	5	142,662,721	23,827,354	9,018,915	16,310,338
"	6	137,871,100	17,441,764	11,000,502	19,566,152
"	7	117,363,987	4,097,908	20,152,647	18,658,452
"	8	135,763,087	684,798,	26,943,283	13,145,087
"	9	178,697,170	217,384	7,830,008	13,599,680
"	10	186,387,803	4,813,085	6,784,539	16,710,922
MIXTA Nig. plc	11	887,199	846,767	151,859	2,886,622
"	12	1,075,605	1,026,587	184,108	3,499,630
"	13	1,097,366	1,047,356	187,832	3,570,418
"	14	1,566,306	1,594,925	286,,033	5,437,078
"	15	1,151,867	1,543,564	276,822	5,261,989
"	16	1,603,938	1,633,265	292,905	5,567,707
"	17	636,629	105,775	336,711	5,452,885
"	18	8,048,473	29,680	337,218	5,132,310
"	19	508,659	-63,779	1,780,622	38,722,169
"	20	620,757	216,983	3,460,807	35,937,065

Source: Researcher's compilation, 2020, based on the appendices (See Appendix II & III).

Note:

OPAC – Cost of Operating Activities

INVAC – Cost of Investing Activities

FINAC – Cost of Financing Activities

NW – Networth or Net asset

Table.2: LOG of Pooled Data of the Sampled Construction Companies

\NAME OF COMPANY	OBSERVATION	LOG OF OPAC	LOG OF INVAC	LOG OF FINAC	LOG OF NW
Julius Berger	1	8.102706086	7.551972118	4,761,662	6.887740146
"	2	8.108123554	7.414437315	7.046841837	6.881784469
"	3	8.09340714	6.930794073	7.253322179	7.00398331
"	4	8.268160858	7.413859023	7.251999447	7.162016892
"	5	8.154310503	7.377075817	6.955154294	7.212462961
"	6	8.139473241	7.241590406	7.041412504	7.291505423
"	7	8.069534855	6.612562204	7.304332098	7.27087561
"	8	8.132781704	5.835562483	7.430450513	7.118763465
"	9	8.252117675	5.337227576	6.893762206	7.13352869
"	10	8.270417489	6.682423531	6.831520343	7.223000412
MIXTA	11	5.948021044	5.927763924	5.181440536	6.460389917
"	12	6.031652812	6.01139576	5.26507266	6.544022131
"	13	6.0403515	6.020094325	5.273769583	6.552719063
"	14	6.194876612	6.202740266	5.456416141	6.735365563
"	15	6.061402336	5.186289416	5.442200602	6.721149936
"	16	6.205187577	6.213056655	5.466726785	6.745676373
"	17	5.803886418	5.024383034	5.527257305	6.733662633
"	18	6.905713491	4.472463897	5.527910748	6.710312881
"	19	4.768334655	- 4.804677706	6.250571735	7.587959676
"	20	5.792921626	5.336425709	6.539177381	7.555542605

Researcher's Computation, 2020**Data Analysis****Analysis on Objective 1****Table 3: Correlation Analysis on Operating Activities cost and Network****Model Summary**

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.261 ^a	.068	.016	.3256320279

a. Predictors: (Constant), LOPAC

Table 4.3 shows the correlation analysis on operating activities and Network of construction firms in Nigeria. The result shows that $r = 0.261$ while $R^2 = 0.068$. It implies that there is a positive and weak correlation between operating activities (OPAC) and Network of construction firms in Nigeria. It can be deduced that operating activities is not relevant to the Network of construction firms in Nigeria because OPAC could not strongly determine the variation in Network as it was only able to have an estimated 6.8% change.

Test of Hypothesis 1

H_0 : Operating activities do not have significant effect on the Network of construction firms in Nigeria.

Decision Rule: Reject H_0 if $p\text{-value} < 0.05$, otherwise accept.

Table 4: Analysis of Variance on Operating Activities Cost and Network

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	P-value
1 Regression	.139	1	.139	1.313	.267 ^b
Residual	1.909	18	.106		
Total	2.048	19			

a. Dependent Variable: LNW

b. Predictors: (Constant), LOPAC

The p-value of the predictor in table 4.4 is 0.267. Since p-value > 0.05 (i.e. the critical value being 0.05) we accept H_0 and conclude that operating activities cost do not have significant effect on the Networth of construction firms in Nigeria.

Table 5: Regression Analysis on Operating Activities Cost and Network

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	P-value.
	B	Std. Error	Beta		
1 (Constant)	6.463	.454		14.244	.000
LOPAC	.073	.063	.261	1.146	.267

a. Dependent Variable: LNW

Table 4.5 provides the coefficients for stating the regression model as follows:

$$LNW_i = 6.463 + 0.073(LOPAC_i) + \mu$$

The regression model shows that there was a positive constant annual increase in Networth of about N6.463m as a result of operating activities during the period. Similarly, there was an annual marginal increase of 0.073 in Networth as a result of the operating activities in the construction companies.

Analysis on objective 2

H_0 : Investing activities do not have significant effect on the Networth of Construction firms in Nigeria

Decision Rule: Reject H_0 if p-value < 0.05, otherwise accept.

Table 6: Correlation Analysis on Investing Activities cost and Network

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.321 ^a	.103	.053	.3194944399

a. Predictors: (Constant), LINVAC

Table 4.6 shows that $r = 0.321$ and $R^2 = 0.103$. This means that investing activities have a positive but very weak correlation with Networth of construction firms in Nigeria. INVAC could only determine the variation in the Networth of the Construction firms up to 10.3% and it was not so strong. Hence, we can infer that investing activities has a weak correlation with Networth

of construction firms, and does not actually strongly determine the variation in Network as 89.7% remained unexplained.

Test of Hypothesis 2

Table 7: Analysis of Variance on Investing Activities cost and Network

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	P-value.
1	Regression	.210	1	.210	2.062	.168 ^b
	Residual	1.837	18	.102		
	Total	2.048	19			

a. Dependent Variable: LNW

b. Predictors: (Constant), LINVAC

Table 7 shows that p-value for the F-statistic 2.062 is 0.168. Since the p-value > the critical value (i.e. $\alpha = 0.05$) we accept H_0 and conclude that investing activities do not have significant effect on the Network of Construction firms in Nigeria.

Table 8: Regression Analysis on Investing Activities and Network

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	P-value
	B	Std. Error	Beta		
1	(Constant)	7.205	.174	41.369	.000
	LINVAC	-.040	.028	-1.436	.168

a. Dependent Variable: LNW

The coefficients of the regression model in table 4.8 are stated thus:

$$LNW_i = 7.205 - 0.040(LINVAC_i) + \mu$$

The findings show that there was a constant annual contribution by investment activities of about N7.205m to Network while there was also a marginal decrease of 0.040 on each unit of investing activity and the Network during the period.

Analysis on Objective 3

H_0 : Financing activities do not have significant effect on the Network of Construction firms in Nigeria.

Decision Rule: Reject H_0 if p-value < 0.05, otherwise accept.

Table 9: Correlation Analysis on Financing Activities and Network

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.064 ^a	.004	-.051	.3366132976

a. Predictors: (Constant), LFINAC

The correlation coefficient in table 9 is $r = 0.064$ while the coefficient of determination is $R^2 = 0.004$. This reveals that there was a positive but very weak correlation between financing activities and the Networth of Construction firms in Nigeria during the period. The result shows that investing activities could only explain 0.4 percent of the changes that occurred in the Networth of Construction firms in Nigeria during the period studied.

Table 10: Analysis of Variance on Financing Activities and Networth

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	P-value.
1	Regression	.008	1	.008	.073	.790 ^b
	Residual	2.040	18	.113		
	Total	2.048	19			

a. Dependent Variable: LNW

b. Predictors: (Constant), LFINAC

The test of hypothesis using F-statistic shows that p-value = 0.790. Since p-value of the test statistic is > 0.05 , we accept H_0 and conclude that financing activities do not have significant effect on the Networth of Construction firms in Nigeria.

Table 11: Regression Analysis on Financing Activities and Networth

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	P-value
		B	Std. Error	Beta		
1	(Constant)	6.981	.077		90.403	.000
	LFINAC	-1.965E-008	.000	-.064	-.271	.790

a. Dependent Variable: LNW

The regression model for this relationship is as stated below:

$$LNW_i = 6.981 - 1.965E-008(LFINAC_i) + \mu$$

This means that there was a constant annual increase in Networth of about N6.981m as a result of financial activities whereas the marginal contribution decreased at the rate of 1.965E-008 over the period studied.

Discussion of the Findings

The outcome of this study complies with some of the results of some previous studies but they were not directly on Cashflow and Networth of Construction firms. Some of the works actually measured the effect of Cashflow on firm performance. Such were the studies by Nwanyanwu (2015), Liman and Mohammed (2018), Oladimeji and Aina (2017), Nakhaei and Jafari (2015) and Mohammadi, Kardan, and Salehi (2018).

The findings also fulfilled the Agency theory because Managers of the Construction firms withheld finance activities and that is why it was not relevant to the Networth of the Construction firms. The expectation of the researcher was that Cashflow from financing activities should be relevant to Networth of construction firms considering the magnitude or volume of cash at the firms' disposal.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

Summary of the Findings

Below are the findings in this study:

1. The percentage value in the test of hypothesis is 0.267. Since $p\text{-value} > 0.05$ (i.e. the critical value being 0.05) we accept H_0 and conclude that operating activities cost do not have significant effect on the Networth of construction firms in Nigeria.
2. The $p\text{-value}$ in the test of hypothesis is 0.168. Since the $p\text{-value} >$ the critical value (i.e. $\alpha = 0.05$), we accept H_0 and conclude that investing activities do not have significant effect on the Networth of Construction firms in Nigeria.
3. The test of hypothesis shows that $p\text{-value} = 0.790$. Since $p\text{-value}$ of the test statistic is > 0.05 , we accept H_0 and conclude that financing activities do not have significant effect on the Networth of Construction firms in Nigeria.

Conclusion

The importance of Cashflow cannot be over-emphasized especially in the construction industry that needs adequate funds for its projects. The Construction industry though bereft of adequate amount of data to accomplish the aim of this study has at least opened a new dimension about this contemporary issue in research.

There is room for continuous search for more facts on this topic but essentially there is challenge as to how to improve the quantity and quality of data available currently. However, the study was able to add knowledge to the subject of Cashflow and its relevance to Networth of firms in the Construction industry in Nigeria. It is also perceived by the researcher that many scholars would probably want to use the outcome as a springboard and join in the search for more quantitative data as well as trigger the desire to determine the relevance of Cashflow to the Networth of related industries or subsectors in Nigeria. That would be a welcome dimension to our effort to improve different sectors for development through meaningful research.

Recommendations

The study recommends that:

1. Since the cost of operating activities is not relevant to Networth of construction firms, conscious efforts should be made to improve on it. Managers should endeavour to reverse the trend and make operating cost count by increasing the efficiency of operations and translating to higher Networth values.
2. More investing activities should be encouraged by Construction firms so as to change the present situation whereby investing activities are in very low ebb. At least, more investment shall always raise the amount of cash inflow for the industry.
3. The managements of Construction firms are advised to increase financing activities in the industry so as to increase total assets. This will grow more net assets or Networth and reduce the size of liability of the firms in the future.

Implication of the study

The implication of the study is that since all the three components do not have significant effect on the Networth of construction companies in Nigeria, it may not be generally acceptable to generalize the results of findings. Therefore, it might need further investigation using larger

sample size and different analytical approaches to ascertain the effect of Cashflow on Networth of construction companies in Nigeria.

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APPENDIX I**Construction Companies in Nigeria: The Full List**

1. Schwartz Kristoffel
2. Monier Construction Company (Nigeria) Ltd
3. Arab Contractors (AC)
4. China Civil Engineering Construction Company (CCECC) Nigeria Ltd
5. Julius Berger Nigeria
6. G. Cappa plc
7. Saidi Nigeria Ltd
8. Apave Nigeria
9. Elalan Construction Company
10. Mixta Nigeria
11. Adold Engineering Company Ltd
12. Net Construct
13. Reynolds Construction Company
14. Setraco Nigeria Ltd
15. Costain West Africa
16. Brunelli Construction Company (Nigeria) Ltd
17. Dantata & Sawoe Construction Company (Nigeria) Limited
18. Sujimoto

Source: <https://nigerianfinder.com/construction-companies-in-nigeria-the-full-list/>

APPENDIX II**Julius Berger Nig. Plc: Cashflow and Networth, 2009-2018**

Year	OPAC N'000	INVAC N'000	FINAC N'000	NW N'000
2009	126,679,425	35,642,825	4,761,662	7,722,184
2010	128,269,545	25,967,929	11,138,888	7,617,009
2011	123,995,847	8,526,957	17,919,347	10,092,141
2012	185,421,848	25,933,374	17,864,853	14,521,681
2013	142,662,721	23,827,354	9,018,915	16,310,338
2014	137,871,100	17,441,764	11,000,502	19,566,152
2015	117,363,987	4,097,908	20,152,647	18,658,452
2016	135,763,087	684,798	26,943,283	13,145,087
2017	178,697,170	217,384	7,830,008	13,599,680
2018	186,387,803	4,813,085	6,784,539	16,710,922

Source: Annual reports and financial statements of Julius Berger Nig. Plc, 2009-2018

APPENDIX III
MIXTA NIG. LTD: Cashflow and Networth 2009-2018

Year	OPAC N'000	INVAC N'000	FINAC N'000	NW N'000
2009	887,199	846,767	151,859	2,886,622
2010	1,075,605	1,026,587	184,108	3,499,630
2011	1,097,366	1,047,356	187,832	3,570,418
2012	1,566,306	1,594,925	286,,033	5,437,078
2013	1,151,867	1,543,564	276,822	5,261,989
2014	1,603,938	1,633,265	292,905	5,567,707
2015	636,629	105,775	336,711	5,452,885
2016	8,048,473	29,680	337,218	5,132,310
2017	508,659	-63,779	1,780,622	38,722,169
2018	620,757	216,983	3,460,807	35,937,065

Source: Annual reports and accounts of MIXTA Nig. Ltd, 2009-2018