INTERNATIONAL JOURNAL OF SOCIAL Sciences and Information Technology
ISSN 2412-0294 www.ijssit.com

http://www.ijssit.com Vol II Issue VIII, October 2016
ISSN 2412-0294

EFFECT OF CASH FLOW MANAGEMENT ON MARKET PERFORMANCE OF PUBLIC CONSTRUCTION COMPANIES IN KENYA

[1*] **Beatrice Wanjiru Ndungu**
Jomo Kenyatta University of Agriculture and Technology
bettymbaya15@gmail.com

[2**] **Dr. Oluoch Oluoch (Ph D)**
Jomo Kenyatta University of Agriculture and Technology
oluochjoluoch@gmail.com

Abstract

This study proposed to assess the effect cash flow management on the market returns of public construction companies in Kenya. Secondary semi-annual data was collected for the 5 listed construction companies at the Nairobi Securities Exchange (NSE) over a seven year period from January 2008 to December 2015. The analysis used the modified capital asset pricing model (CAPM) regress construction company equal weighted semi-annual portfolio returns on the market excess returns over risk free rate of return as the first variable and Cash flow ratio, an indicator of cash flow management as the second variable. The statistical significance of the cash flow management coefficient from the model was tested using the t-statistic and at 95% confidence interval. Testing the statistical significance of the coefficients of the cash flow ratios from each of the type of cash flows, the findings reject the null hypothesis for all the types of cashflows (operating, Investing, Financing and Free cash flows). The results show that cash flows from operations have a positive effect of market performance of construction companies and while the cash flows from investing, financing and free cash flows all have a negative effect of the market performance of construction companies. The coefficients of the market return premium are significant for all the four models, an indication that besides cash flow management, market risk plays an important role in the market performance of the securities listed in the construction segment of the NSE. It is concluded cash flow management affects the security performance of public construction companies in Kenya.

Key Words: Cash Flow Management**,** Public Construction Companies**,** Market Performance

1. INTRODUCTION

Maintaining an optimum cash amount calls for proper management of cash flows (Matoha, 2007). Firms with good cash management systems are also able to make any investments decisions needed to compete (Matoha, 2007). Most studies in construction management have focused on construction projects and not on the performance of construction companies. Shaban (2008) did a study on factors affecting performance of construction projects in Gaza, Palestine. He found out that the main issues affecting performance were cost, time management and safety. Auma (2014) did a similar study in Kenya, citing that there was an increase in the number of stalled projects due to problems such as high cost of materials, time management, quality management and the leadership style adopted on site. Her remarks on the complex nature of the construction industry is that there are a large number of parties involved such as clients, contractors, consultants, stakeholders, investors, regulators and others. Project management is important for a company's success but it's also dependent on the successful management of the company involved (Nguku, 2015).

A study by Mutti & Hughes (2002) on cash flow management of construction firms in the UK revealed that insolvencies are higher in the construction industry as compared to other sectors, siting the major cause of failure as lack of financial control and poor management. The study elaborates that with a good cash flow management such companies can be kept operating and financially healthy. Failure can be prevented using models of cash flow management and forecasting that form a basis for mangers to rethink their cash flow management practices.

Nguku (2015) studied the survival of construction companies in Kenya found out that a combination of many factors have made the construction industry very volatile, less profitable and more competitive making survival of construction companies very challenging. Intense competition and increased volatility have made the industry more vulnerable to fluctuations in demand and survival has been an uphill task. This thus calls for better strategies to ensure these are able to navigate and adapt to the continuous dynamic market turbulences (Baum and Wally, 2003). Since China and India are the leading countries contributing most growth to emerging markets (Price water house Coopers, 2013), we expect that their recent involvement in some of the mega projects in Kenya will fast track growth in the sector.

The relationship between cash flows management and market performance is a subject of contradictory views in the past. Jabbari *et al.* (2013) on a study to examine the role of operational cash flow and its ability to predict a stock price crash found out that the more the amount of operating cash flow, the less the stock price crash risk would be. This in other words is in favor of a good cash flow management system being used to predict the stock market performance of a security asset. In contrast, Cheng *et al.* (2008) did a study to investigate if cash flows are relevant for stock pricing in Malaysia, his findings were that though cash flows appear to have no information content on share prices in the annual and medium windows tests, it does have information content in the short window tests with incremental information content beyond earnings. However we cannot generalize these findings into our local scenario due to economic differences, such as levels of development, competition, government regulation, etc.

The local studies available are few and compare a relationship between cash flow management practices and financial performance, Kimonge (2011) discusses the relationship between cash flow management and financial performance of NGOs in Kenya where his results displayed no significant relationship between cash flows management and the financial performance of the NGOs registered by the NGOs coordination Board and operating in Nairobi. Chepkwony (2014) studied the relationship between cash flows and stock returns of firms listed at the NSE. She only used free cash flows for her predictive variable and recommended a similar study using more predictive variables. This study therefore seeks to find out if investors find any relevance between cash flow management and market performance by choosing a more specific industry i.e. construction companies. It also adds on the predictive variables of market performance from the mandatory cash flow statement to investigate how they contribute to investor's decision.

2. OBJECTIVES OF THE STUDY

The general objective for this study of establishing the effect of cash flow management on market performance of public construction companies in Kenya is guided by four specific objectives:

1. To determine the influence cash flows from operating activities have on market performance of public construction companies in Kenya.
2. To establish the influence cash flows used in investing activities have on market performance of public construction companies in Kenya.
3. To determine the influence cash flows used in financing activities have on market performance of public construction companies in Kenya.
4. To investigate the effect of free cash flows on market performance of public construction companies in Kenya.

3. RESEARCH METHODOLOGY

The study adopted a descriptive research design. The design is appropriate to profile a relationship between cash flow management and market performance. The scope of the study is the public construction companies in Kenya, since there are only five construction and allied companies listed at the NSE, the study will use data from all the five companies. The study will utilize secondary data only. Information on cash flows will be obtained from the audited and published financial statements of the listed public construction companies from NSE for a period of 7 years from 2009-2015. Both descriptive and inferential statistics are used. The modified CAPM approach is adopted to regress construction company market return premium on market risk and cash flows indicators as shown in the model 1().

$$R_p = \beta_0 + \beta_1(R_m - R_f) + \beta_2(CFR_i) + e \quad ---------- (1)$$

R_p is the return premium being the excess of portfolio returns over the risk free returns as indicated by the 91-day Treasury Bill rate (R_f) the indicator of the risk free rate of return; Rm is the market return as indicated by the returns on the NSE-20 share index while CFR is the cash flow ratio as determined from equation (2).

$$CFR_i = \frac{Cash\ flows_i}{Total\ assets} \quad ----------(2)$$

The various cash flow ratios determined were the cash flow from operations ratio (CFR_O), cash flow from investing activities ratio (CFR_I),, cash flow from financing activities ratio (CFR_F), and the free cash flows ratio (CFR_{FF}),.

4. RESULTS AND DISCUSSION

The first specific objective was to determine the influence of cash flows from operations on market performance of construction companies. In order to achieve this, data from the cash flows from operations was regressed using the CAPM model to find the direction and extent of influence. The results indicated in Table 1.

Table 1: Effect of CFO on Market Performance

Regression Statistics	**CFO**			
R-Square	0.517069			
Observations	15			
	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.59229113	0.404793	-1.4632	0.169108957
R_m-R_f	-4.21114556	17.57772	-0.2395	0.01526768
CFR_O	0.67502919	0.020747	3.25358	0.045782862

The regression analysis for cash flows from operations showed a quite strong influence of cash flows from operations of R = 0.517 and R square of 0.267. The results showed a strong co-efficient of determination followed by favourable p values for the t-test for both market returns and cash flows from operations. Since the p value is 0.045, at α =0.05 the study finds that there is significant association between. This justifies the inclusion of CFO in the model. From the regression findings

$$R_p = -0.5922 + -4.2111(R_m - R_f) + 0.675(CFO_o) + e$$

Similar to the CFO, data on cash flows from investing activities was collected and analysed with an aim to achieve the second objective; to establish the influence of cash flows from financing activities on market performance of public construction companies. The model gave the results in Table 2.

The results indicate a 0.336 determination coefficient between cash flows from investments and stock market returns for the public construction companies. CFI are uniquely capable to explain the variations in stock market returns by 33.629% with a standard error of 1.59.

Table 2: Effect of CFI on Market Performance

Regression Statistics				
R Square		0.3362952115		
Adjusted R Square		0.2888919		
Observations		15		
	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.2784589	0.412479	-0.6750	0.512419316
R_m-R_f	-34.912810	12.44783	-2.8047	0.027387875
CFR_I	-0.2965442	0.037973	-0.7809	0.044997743

From the results, the coefficient of the CFR_I β=-0.29 and p =0.0449 indicates a negative but significant relationship between cash flows from investments and market performance. From the above analysis, the predictive model for returns is;

$$R_p = -0.278 + -34.912(R_m - R_f) + -0.296(CFR_I) + e$$

In order to achieve the third objective and similarly answer the third research question, on whether cash flows from financing activities had any impact on market performance of public construction companies, a similar regression model was run for CFF and had the following results In Table 3.

Table 3: Effect of CFF on Market Performance

Regression Statistics				
R Square		0.115424397		
Standard Error		1.588006321		
Observations		15		
	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.3077785	0.410068	-0.7505	0.467382712
R_m-R_f	-26.839347	10.06665	-2.6661	0.037400713
CFR_F	-0.2616791	0.032581	-0.8031	0.04374938

From the regression statistics, R^2 is rather down sided by cash flows from financing activities as the model alone only explains 11% of variations in market performance which is an inverse relationship from the Pearson correlation coefficient. The beta coefficient for CFF -0.261 shows a negative relationship between cash flows from financing activities and market performance. The P value 0.043 however justifies the significance of the model.

$$R_p = -0.307 + -26.83(R_m - R_f) + -0.296(CFR_F) + e$$

The regression analysis for free cash flows showed a very strong influence of free cash flows of R = 0.584 and R square of 0.341. There was a standard error of 1.37 which if taken into account, the adjusted R^2 is 0.231. Further the analysis presented a test of significance as indicated in

Table 4. This shows that 34.15% of the changes in returns can be explained by the model variables being market excess returns and free cash flow ratio an indicator of management of cash flows.

Table 4: Effect of FCF on Market Performance

Regression Statistics				
R Square		0.341505648		
Standard Error		1.370126844		
Observations		15		
	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.74862811	0.40492	-1.84883	0.089259292
R_m-R_f	-25.250377	11.08177	-2.27855	0.033393731
CFR_{FF}	0.541838014	0.024264	2.233055	0.045360699

The results indicated a positive co-efficient of 0.541 followed by favourable p values for the t-test for both market returns and cash flows from operations. Since the p value is 0.045, at α =0.05 the study finds that there is significant association between. This justifies the inclusion of FCF in the model.

$$R_p = -0.7486 \pm 25.25(R_m - R_f) + 0.541(CFR_{FF}) + e$$

Taken on an overall basis, the descriptive statistics depicts characteristics of the data studied. The mean of construction companies returns was 13 % which represents the average expected returns for investments. The standard deviation means that returns would be expected to rise and fall in the range of 36%. The average market returns represented by the NSE 20 share index similarly have average returns of 11% expected to fall and rise in the range of 47%. This shows that market returns and constructions company's returns move in a linear direction. This linear assumption is further supported by a strong 0.74 correlation coefficient between the two types of returns.

The study examined the effect of cash flows from operating activities on market performance of public construction companies in Kenya. The study found a positive correlation coefficient 0.353 and a positive beta value, β = 0.675 indicating a positive or direct relationship between the two variables. The results also indicated out that CFO had a significant effect p = 0.045 on market performance. CFO is uniquely capable of explaining 26% of the variations to the construction companies returns. Even with adjusted R square there is still a plausible 14% determination co-efficient.

The study then examined the effect of cash flows from investing activities on market performance of public construction companies in Kenya. The results showed a negative correlation coefficient of -0.125 and a negative beta values β = -0.296 indicating a negative or indirect association between CFI and market performance. The results also indicated p-value of 0.0449 which is less than the 0.05 significance test, Regression results show that a one percent

increase in CFI is likely to cause an 11.3% decrease in stock market returns of public construction companies.

The study further investigated the effect of cash flows from financing activities on market performance of the public companies in Kenya. The results gave a negative correlation coefficient of -0.229 and a negative beta value β = -0.261 indicating a negative association between CFF and market performance. P values for the t-test show a 0.045 a significant relationship between CFF and market performance in the industry. From the regression model a one percent change in FCF is likely to cause an 11.5% change in stock market returns of the public construction companies.

The study lastly investigated the effect of free cash flows on market performance of the public companies in Kenya. The results showed a positive correlation coefficient of 0.534 and a positive beta value of β =0.543. This is a strong indication that FCF have a direct or positive effect on market performance. The test of significance show p values of 0.045 which is well acceptable for a 95% confidence level.

5. CONCLUSION

The model was found to be significant for all the variables. The independent variables CFO, CFI, CFF and FCF were regressed against market returns using the CAPM model. The four independent variables that were studied explain 42.6% of variation in stock returns as represented by the value of R^2. This therefore means that other factors not studied in this research contribute 57.4% of variance in the dependent variable.

A positive relationship is evident between market performance and cash flows from operations and free cash flows contrary to the negative relationship with cash flows from both investing activities and financing activities. Returns of the public construction companies we found to be highly correlated with average market returns whose proxy was NSE 20 share returns; the observed correlation coefficient was 0.74. This means that construction companies perform equally as good as the market does.

This study was based on several theories amongst them, the efficient market hypothesis and free cash flow theory. The efficient markets hypothesis predicts that market prices should incorporate all available information at any point in time. This study proofs that stock prices at the NSE not only reflects historical information but also rapidly change to reflect new publicly available information including dividend payments. The free cash flow theory suggests that when free cash flows are available, managers are hypothesized to waste them through organizational inefficiencies or invest them to yield subnormal returns. However according to empirical studies, free cash flow measures a company's ability to generate cash, which is a fundamental basis for stock pricing. The results of the study also show a positive correlation between free cash flows and market returns. It therefore does not support the free cash flow theory.

Some of the studies upon which this study was based on have comparative results with the findings from this study. For example, Kimonge (2011) did a study on the relationship between

cash flow management and the financial performance of NGOs in Kenya. Though his study did not find a significant relationship between cash flow management and financial performance,

There was a positive relationship between fiscal performance ratio and cash flows from operating activities with a correlation coefficient of 0.44 as opposed to negative /inverse relationship with both cash flows from investing activities and cash flows from financing activities whose coefficients of correlation were -0.38 and -0.5 respectively.

Similarly, in a study on the relationship between operational cash flow and the returns to stockholders by Ghodrati, Abyak (2014) of 54 firms from Tehran Stock Exchange, The results showed that there were some meaningful relationship between the operating cash flows profitability and the returns of all stakeholders. This study also finds a positive and significant relationship between cash flows from operations and market returns.

The study concludes that are relatively high positive correlations present between the dependent variable market performance and the two independent variables cash flows from operations and free cash flows are congruent predictors. On the other hand there are significant negative correlations between cash flows from financing and investing activities. This can be explained by the nature of the cash flows. From the cash flow statements, cash flows from operations were mostly positive figures representing cash inflows while cash flows from financing and investing activities were often negative figures representing cash outflows.

Concerning the CFO, the study concludes they have a positive significant relationship with market returns thus the higher the ratio of CFO, the higher the returns expected by investors in the industry. CFO has a high correlation coefficient of 0.6 with FCF which shows the two variables are auto correlated.

From the findings, the information cash flows statements do have a significant impact on market performance; the study thus concludes that the market has a semi strong form of efficiency

This study advocates for improved management of cash flows and cash flows conversion cycles in public construction companies. It also recommends that since the market responds to information from cash flows, they should increase the frequency of which they release audited cash flow statements to increase levels of relevance to investors. They can also enhance their market performance by use of forecasted cash flows. The study recommends that firms increase levels of operating cash flows and free cash flows as they are positively correlated with financial performance and stock returns.

The study recommends that the NSE should increase investor education when it comes to making investment decisions so that some segments do not always seem favorable than others.

Several enhancements can be made to these findings regarding methodology and empirical evidence some of which are suggested. Only a single NSE share listing segment- the construction and allied industry- was considered in this study. While generalisation of this findings are not put to doubt, financial innovation at NSE has introduced other segments such as Alternative Investment Market Segment (AIMS) which if incorporated in future studies may yield varying results. This is therefore recommended.

The estimated model was able to deliver about 42.6% of the explanation between cash flow management and market performance. What this portends is that there is still an opportunity to explain the remaining 57.4% especially considering that earnings have been in the past used to explain market performance of companies.

The study measured market performance using stock market returns. Sarkar *et al.* (2001) defines market performance in terms of sales growth, market share, market development and product development. These are the strongest indications of a firm's general health-that is, its ability to sustain performance over the long run while maintaining or growing its profitability and liquidity position. Further studies can be carried out using the different measures of market performance.

This study looked at a general view of the cash flow statements by considering only the final figures of the cash flow statements, an in-depth study can also be carried out into the specific components of the various elements of the cash flows to determine their impact on market performance.

REFERENCES

Allen, M. F & Cote, J. (2005): Creditors' use of operating cash flows: an experimental study, Journal of Managerial Issues - Summer, 2005.

Amihud, Y. (2002). Illiquidity and stock returns: cross-section and time-series effects. Journal of financial markets, 5(1), 31-56.

Arnott, R. D., & Asness, C. S. (2003). Surprise! Higher dividends= higher earnings growth. Financial Analysts Journal, 59(1), 70-87.

Auma, E. (2014). Factors Affecting the Performance of Construction Projects in Kenya: A Survey of Low-Rise Buildings in Nairobi Central Business District. The International Journal of Business & Management, 2(12), 115.

Baker, M., & Wurgler, J. (2006). Investor sentiment and the cross-section of stock returns. The Journal of Finance, 61(4), 1645-1680.

Brennan, M. J., Jegadeesh, N., & Swaminathan, B. (1993). Investment analysis and the adjustment of stock prices to common information. Review of Financial Studies, 6(4), 799-824.

Buigut, K., Soi, N., Koskei, I., & Kibet, J. (2013). The effect of capital structure on share price on listed firms in Kenya. A case of energy listed firms. European Journal of Business and Management, 5(9).

Campbell, J., Polk, C., &Vuolteenaho, T. (2005). Growth or glamour? Fundamentals and systemic risk in stock returns. Review of Financial Studies, 10, 1093-1194

Chang, S. C., Chen, S. S., Hsing, A., & Huang, C. W. (2007). Investment opportunities, free cash flow, and stock valuation effects of secured debt offerings. Review of Quantitative Finance and Accounting, 28(2), 123-145.

Chepkwony, C. C. (2014). The relationship between free cash flows and stock returns of firms listed at the Nairobi securities exchange (Doctoral dissertation, University of Nairobi).

Cooper, D. R. & Schindler, P. S. (2001). Business research methods. New York: McGrew-Hill Companies

Creswell, J. W., & Garrett, A. L. (2008). The" movement" of mixed methods research and the role of educators. South African Journal of Education,28(3), 321-333.

Dittmar, A. K. (2000). Why Do Firms Repurchase Stock. The Journal of Business, 73(3), 331-355.*

Fama, E. (1970). Efficient capital markets: a review of theory and empirical work. The Journal of Finance, 25(2), 383–417.

Fama , E., & French, K. R. (1992, June). The cross-section of expected stock. The Journal of Finance, 57(20), 427-465.

Fama, Eugene F., & French, Kenneth R. (2015). A five-factor asset pricing model. Journal of Financial Economics, 116, 1–22.

Fan-fah, Cheng., Mohd, S., & Nasir, A. (2008). Earnings announcements: The impact of firm size on share prices. Journal of Money, Investment and Banking, 3, 36-46.

Farsio, F., Geary, A., & Moser, J. (2004). The relationship between dividends and earnings. Journal for Economic Educators, 4(4), 1-5.

Farris, M. T. II & Hutchison, P. D. (2003). Measuring cash-to-cash performance. The International Journal of Logistics Management, 14(2), 83-91.

Foerster, S. R., Tsagarelis, J., & Wang, G. (2015). Are Cash Flows Better Stock ReturnsPredictors than Profits?. Available at SSRN 2472571.

Galogah, A. S., Pouraghajan, A., & Makrani, K. F. (2013). The Investigation of Relationship between Free Cash Flows and Stock Returns: Evidence from Tehran Stock Exchange. World of Sciences Journal, 1(12), 62-69

George, T., & Hwang, C. (2010). A resolution of the distress risk and leverage puzzles in the Cross section of stock returns. Journal of Financial Economics, 96, 56–79.

Graham, A., & Coyle, B. (2000). Framework for: Credit Risk Management. Global Professional Publishing

Graham, A., & Coyle, B. (2000). Cash flow forecasting and liquidity. Global Professional Publishing

Hudgins, C., Rose, S., Fifield, P. Y., & Arnault, S. (2013). Navigating the legal and ethical foundations of informed consent and confidentiality in integrated primary care. Families, Systems, & Health, 31(1), 9.

Holmstrom, Bengt., and L. Weiss, "Managerial Incentives, Investment and Aggregate Implications," Review of Economic Studies, LII (1985), 403-26

Jabbari, H., Sadeghi, Z., & Askari, S. A. (2013). Cash Flow, Earning Opacity and its Impact on Stock Price Crash Risk in Tehran Stock Exchange. International Journal of Academic Research in Accounting, Finance and Management Sciences, 3(4), 138-145.

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. Corporate Finance, and Takeovers. American Economic Review,76(2).

Kamula, W. K. (2011). Relationship between working capital management and profitability of cement companies in Kenya. Unpublished MBA project paper, UON.

Kew J., Mettler C., Walker T. &Watson A. (2006). Accounting an Introduction (2nd edition). Publish by oxford university press

Kimonge, H. K. (2011). The relationship between cash flow management and the financial performance of NGOs in Kenya: case of NGOs in Nairobi(Doctoral dissertation, University of Nairobi, Kenya).

Kiremu, M. K. G., Galo, N., Wagala, A., & Mutegi, J. K. (2013). Stock price and volumes reaction to annual earnings announcement: A case of the Nairobi Securities Exchange. International Journal of Business, Humanities and Technology, 3(2), 101-111.

Koech, P. (2012). Relationship between liquidity and return of stock at the Nairobi securities exchange (Doctoral dissertation, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI).

Kroes, J. R., & Manikas, A. S. (2014). Cash flow management and manufacturing firm financial performance: A longitudinal perspective. International Journal of Production Economics, 148, 37-50.

Liu, S. (2015). Investor sentiment and stock market liquidity. Journal of Behavioral Finance, 16(1), 51-67.

Mark Saunders et al, 2009, Research methods for business students 5th Edition Italy Rotorio Lombarda

Matoha, D. (2007). "Research on Working Capital Management of Publishing Companies", Unpublished Undergraduate, Research Work, University ofDar es salaam, Tanzania

Memba, F., Gakure, R. W., & Kabare, K. (2013). The Influence of Venture Capital on Financial Management of Small and Medium Enterprises in Kenya. The Exchange, 2(1)

Myers, S. & Majluf, N. (1984). Corporate Financing and Investment Decisions when Firms have Information that Investors do not have. Journal of Financial Economics,13, 187 – 221.

Mirza, N., Rahat, B., & Reddy, K. (2016). Financial leverage and stock returns: evidence from an emerging economy. Economic Research-Ekonomska Istraživanja, 29(1), 85-100.

Mirza, N., Saeed, M., & Rizvi, K. (2013). The pricing of size, book to market and financial Leverage in Euro stocks. Economic Research-Ekonomska Istraživanja, 26, 177–190.

Muchina, S. W. (2015). Determinants of share price volatility of companies listed on Nairobi Securities Exchange in Kenya (Doctoral dissertation, JKUAT).

Mbithi, E. M. (2014). The relationship between interim dividend change and future earning for listed companies in Kenya (Doctoral dissertation, Strathmore University).

Mutti, C. D. N., & Hughes, W. (2002). Cash flow management in construction firms.

Muthusi, P. (2014). Effects of free cash flows on the profitability of five star hotels in Kenya (Doctoral dissertation).

Nawazish Mirza, Birjees Rahat & Krishna Reddy (2016) Financial leverage and stock returns: evidence from an emerging economy, Economic Research-Ekonomska Istraživanja, 29:1, 85-100, DOI: 10.1080/1331677X.2016.1160792

Nguku, A. N. (2015). Survival of local construction companies in Kenya through diversification: a case study of Nairobi County (Doctoral dissertation, University of Nairobi).

O'Berry, D. (2007). Small Business Cash flow. John Wiley and Sons Publishing

Ortiz-Molina, H., and G. Phillips. 2014. Real asset liquidity and the cost of capital. Journal of Financial and Quantitative Analysis forthcoming.

Pandey, I. M. (2001). The Expected Stock Returns of Malaysian Firms: A Panel Data Analysis. International Business Review, 20(8), 244-259.

Pandey, I. (2005).Financial Management (9th ed).India: Vikas Publishers.Panneerselvam, R. (2006). Research Methods. New Dheli: Prentise Hall

Peer, S. (1982). Application of cost-flow forecasting models. Journal of the Construction Division, 108(2), 226-232.

Peterkort, R., & Nielsen, J. (2005). Is the Book-to- Market ratio a measure of risk? Journal of Financial Research, 28, 487–502.

Powers M. & Belverd E. Needles (2011), Financial Accounting Principles (11th edition). Publish by Cengage Learning

Quinn, M. (2011). Forget about profit, cash flow is king. Wall Street Journal, accessed July 15, 2012, from http://online.wsj.com/article/SB10001424052970204524604576609740825745286.html

Rahman, M. L., Amin, M. R., & Siddikee, M. N. (2015). Declaration Effect of Cash & Stock Dividends on Share Price: An Empirical Study on Dhaka Stock Exchange. Asian Business Review, 1(1), 72-79.

Robert Burns and Richard Burns (2008) Business Research Methods and Statistics Using SPSS 1ST Edition London Sage Publication

Rono, H. C. (2013). Stock price reaction to earnings announcements: a comparative test of market efficiency between NSE securities exchange and JSE securities exchange (Doctoral dissertation).

Scarborough, N.M. and Zimmerer, T.W. (2003), Effective Small Business Management: An Entrepreneurial Approach, 7th ed., Prentice Hall International, Englewood Cliffs, NJ

Sarkar, M. B., Echambadi, R. A. J., & Harrison, J. S. (2001). Alliance entrepreneurship and firm market performance. Strategic management journal, 22(6-7), 701-711.

Shaban, S. S. A. (April, 2008). Factors Affecting the Performance of Construction Projects in the Gaza Strip, Msc Thesis.The Islamic University of Gaza . Palestine.

Shin, H. H., & Stulz, R. M. (2000). Firm value, risk, and growth opportunities(No. w7808). National bureau of economic research.

Singh, S. and Lakanathan, G. (1992) Computer-based cash flow model, In Proceedings of the 36th Annual Transactions of the American Association of Cost Engineers - AACE, AACE, WV, USA, No. R.5.1-R.5.14.

Simutin, M., 2012, Excess Cash and Mutual Fund Performance, Working paper, University of Toronto

Wah Ho, R., Strange, R., & Piesse, J. (2008). Corporate financial leverage and asset pricing in The Hong Kong market. International Business Review, 17, 1–7.

Wang, G. Y. (2010). The impacts of free cash flows and agency costs on firm performance. Journal of service science and management, 3(04), 408.

Yegon, J. C. (2015). Determinants of initial public offer underpricing: the moderating role of market conditions in African securities exchange association member stock markets (Doctoral dissertation, Moi University).

Zhang, R. (2006). Cash flow management, incentives and market pricing. ProQuest.