

Effects of Liquidity Management on the Security Market Performance of Companies Listed at the Nairobi Securities' Exchange.

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Abstract: *In order to evaluate the effects of liquidity management on the security market performance of companies listed at the Nairobi Securities Exchange, this Census study was carried out on the companies that are listed at the NSE over a 72-month period of January 2008 through December 2013. Using the descriptive research design and the Ordinary Least Squares (OLS) model the study revealed that there is a significant difference between the market performance of liquid companies and that of the illiquid companies, with quick ratio as the measure of liquidity management. Further, the study revealed that liquidity management has an effect on the market return/ performance albeit for the illiquid companies. From the study findings, the liquid portfolio excess return is significantly higher than the illiquid portfolio excess return. This could possibly be because the liquid portfolio companies are very risky while the illiquid portfolio companies are less risky as confirmed by the variations in the coefficient of variation. Because of the failure to influence market performance of liquid companies it was observed that the effect of liquidity management on the market performance of companies listed at the NSE increases with the level of illiquidity. Despite this finding, the study also revealed that all the companies that were studied had a quick ratio of above 1, an indication that they tie a lot of their money in liquid assets. It is recommended that the results of this study should be interpreted diligently because the study focused at a short period of only 72 months and a longer period could yield different results.*

Keywords: *Effects, Liquidity management, Market performance, Securities, Quoted companies*

I. Introduction

Liquidity management refers to the planning and control, necessary to ensure that the organization maintains enough liquid assets either as an obligation to the customers of the organization so as to meet some obligations incidental to survival of the business. Efficient working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet due short term obligations on one hand and avoids excessive investment in these assets on the other hand (Eljelly, 2004)^[1]. Effective liquidity and working capital management consists of applying the methods which remove the risk and lack of ability in paying short term commitments in one side and prevent over investment in these assets in the other side by planning and controlling current assets and liabilities (Lazaridis & Tryfonidis, 2006)^[2].

For any business to survive, the organization or firm should have the required degree of liquidity, which should neither be excessive or inadequate (Bhunja, 2010)^[3]. When the liquidity is excessive it means that there is accumulation of ideal funds and this may lead to lower market performance of securities and profitability whereas inadequate liquidity may result in interruptions of the business operations. For the efficient operation of the business a proper balance between these two extremes should be attained.

According to Bhunia (2010)^[4] the amount of liquidity required by a firm depends on various factors such as the nature of business or industry, operating efficiency, size of business or scale of operations; business cycle; manufacturing cycle; operating cycle and rapidity of turnover; profit margin; profit appropriation and depreciation policy; growth prospects; taxation policy; dividend policy and government regulations. It is of utmost significance to maintain a constant eye on the liquidity position of an organization since without it, it cannot survive.

In order to avoid liquidity crisis, management of businesses and financial institutions in particular needs to have a well-defined policy and established procedures for measuring, monitoring, and managing liquidity. Managing liquidity is therefore a core daily process requiring managers to monitor and project cash flows to ensure that adequate liquidity is maintained at all times (Berger & Bouwman, 2008)^[5]. The study therefore sought to evaluate the effects of liquidity management on the market performance of companies listed at the NSE over a 6 years period that is January 2008 to December 2013.

Several studies have been conducted on the effects of liquidity management on performance of public companies and various conclusions reached. Some of this studied only an aspect or two of the liquidity management components while others studied only the cash conversion cycle. They, however, reported that liquidity management may have an effect on a company's market performance (Amarjit, Nahum and Neil, 2010)^[6]. Hence, the management of liquidity may have both negative and positive impact on the company's market performance. Though, few of those works are explored in this particular study.

Liquidity management is essential for all businesses whether small, medium, or large and it refers to the management of current assets and liabilities, it also plays an important part in the successful management of a firm and secures the future growth of the firm or company. With the present financial situation and the unstable state of the world's economy, financial management is a notion that is getting serious attention all over the world (Priya and Nimalathasan, 2013)^[7]. Managers and the business owners in the whole world today are majorly concerned by devising strategies of managing their day-to-day operations so as to meet their obligations as and when they fall due and also to increase the profitability of the firm and shareholders wealth.

Mathuva (2009)^[8] studied the impact of working capital management on the performance and took 30 listed firms at the Nairobi Stock Exchange and the data was taken from 1993 to 2008. By analyzing the fixed effects regression models in the study, he found out firstly that there is a negative relationship between the time when the cash is collected from the customers and the firm's productivity. This depicts, firms that are more profitable enjoys less time period for the collection of cash from the customers as compare to ones which are less profitable. Secondly, there is a positive relationship between the inventories when they were brought in and the period to which they are sold and the firm's profitability. The interpretation comes out as that the firms or the organizations which take more time to keep the inventories it reduces the costs of the disruption in the process of production and usually the business losses as there is the insufficiency in the goods. This situation decreases the operating cost of the firm. The third finding of the research was the association between the average payment period and profitability and found out to be positive ($p < 0.01$). The more the time taken to disburse the creditors, the profitability will increase.

Eljelly (2004)^[9] found a significant negative relationship between the firm's profitability and liquidity levels as measured by current ratio, and that the relationship is more evident in firms with high current ratios and longer cash conversion cycles. The study also found that at industry level, however, the cash conversion cycle or cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The size variable is also found to have significant effect on profitability at industry level. Similarly in their study, Jose et al (1996)^[10] showed that day-to-day management of a firm's short-term assets and liabilities plays an important role in the success of the firm. Firms with glowing long-term prospects and healthy bottom lines do not remain solvent without good liquidity management.

Singh (2008)^[11] found that the size of inventory directly affects working capital and its management. He suggested that inventory was the major component of working capital, and needed to be carefully controlled. Singh and Pandey (2008)^[12] suggested that, for the successful working of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity. Mohammad and Noriza (2011)^[13] worked on the relationship between Working Capital Management (WCM) and performance of firms. For their analysis they chose the Malaysian listed companies. They administered the perspective of market valuation and profitability. They used total of 172 listed companies from the databases of Bloomberg. They randomly selected five-year data (2003-2007). This research studied the impact of the dimensions of working capital component i.e. C.C.C., current ratio, current asset to total asset ratio, current liabilities to total asset ratio, and debt to asset ratio in effect to the firm's performance whereby firm's value dimension was taken as Tobin Q and profitability that is return on asset and return on invested capital. They applied two different techniques for analyzing the data that are multiple regression and correlations. They found that there is a negative relationship between working capital variables and the firm's performance.

In spite of the peddled impact liquidity management has on a company's market performance, not much empirical evidence is available in support of the claims of liquidity management on the market performance of public companies in Kenya. Given this rarity of empirical studies, it is hoped that this study filled up the gaps and provided valuable support for understanding the effects of liquidity management on the market performance of companies listed at the NSE in Kenya.

II. Objectives Of The Study

The general objective of the study was to evaluate the effects of liquidity management on the securities' market performance of companies listed at the Nairobi Securities Exchange.

The study was guided by the following specific objectives:

- i. To establish liquidity management performance of companies listed in the Nairobi Securities Exchange.
- ii. To ascertain the market performance of companies listed in the Nairobi Securities Exchange.

- iii. To evaluate the statistical significance of the effects of liquidity management on market performance of companies listed in Nairobi Securities Exchange.

III. Research Methodology

A census study using quantitative survey method was conducted on all the 63 companies (excluding companies that have an industry regulated policy and those that don't have continuous trading during the period of study that is 2008-2013) listed at the NSE in Kenya. The study used secondary data derived from the Nairobi Securities Exchange and the Central Bank of Kenya. MS Excel was used specifically for the purpose of analyzing the data that was obtained. Data was analyzed according to descriptive statistics (measures of central tendency) and inferential statistics (significance of the model coefficients based on the t-statistic at 95% confidence interval). A linear regression model, modified from the capital asset pricing model as shown below (i) was used to test the Statistical Significance of liquidity portfolio return premiums it involved the evaluation of β_1 using the t- statistic at 95% confidence interval:

$$R_{p,s} - R_f = \beta_0 + \beta_1(R_m - R_f) + e \dots\dots\dots (i)$$

Where, $R_{p,s}$ = represents the monthly market returns of the two liquidity portfolios of the commercial companies quoted at the NSE, R_f is the risk free rate of return derived from the 91-day treasury bill rate, $\beta_0 = \alpha$ is a market return constant that helps determine the excess coefficients for the portfolios and their statistical significance and the 95% confidence interval established for this study, β_1 = is the rate of change in the market excess returns over the study period, R_m = is the overall monthly market return derived from the monthly NSE-20 share Index. e = is the error term representing the other portfolio excess return factors not captured in the linear regression model.

IV. Data Analysis And Discussion

The study findings revealed that there is no significant difference in the liquidity management performance of companies listed at the Nairobi Securities Exchange, these is so because all the companies had an average quick ratio of 1 and above meaning that the companies had over invested in liquid assets and also they had enough liquid assets to pay their liabilities as and when they fall due. The reason why this companies are highly liquid is attributed to the following the type of company quoted in this study mostly deal with liquid assets and also Kenya has been experiencing increased economic growth during the study period.

The study evaluated the liquid portfolio excess return and the illiquid portfolio return. The findings of the liquid portfolio excess return revealed a mean= 0.029, median = -0.559, standard deviation = 0.597 and the coefficient of variation = 203.53 at 95% confidence interval, this indicated that the liquid portfolio excess return is very volatility, that is the liquid portfolio excess return is very risky whereas the findings of the Illiquid portfolio excess return revealed that a mean= -8.138, median = -7.787, standard deviation = 7.312 and the coefficient of variation = -0.899 at 95% confidence interval, this implied that the Illiquid portfolio excess return is less volatility, that is it is less risky.

From the study findings of the liquid portfolio excess return and the Illiquid portfolio excess return it was revealed that there is a significant difference between the market performance of Liquid portfolio companies and that of the illiquid portfolio companies since the Liquid portfolio companies are very risky (CV =203.53) while the illiquid portfolio companies are less risky (CV =-0.8991) as indicated by the coefficient of variation.

The study findings on the Liquid portfolio companies revealed a β_0 of -1.8212 with t-statistic at 95% confidence interval of 1.32488 as a result the computed t is less than the critical $t_{0.025}$ at 71 degrees of freedom of 1.9945. The study therefore fails to reject the null hypothesis that Liquidity management does not influence the market performance of companies listed at the NSE for the liquid portfolio and concludes that liquidity management has no effect on market performance of companies quoted at the NSE. This is so because it leaves only market characteristics as indicated by the market excess return as the major determinant of market performance which is confirmed by a statistically significant β_1 value of 4.66483 which is greater than the critical value of 1.9945. The regression results of the liquid portfolio are presented in Table 1.

Table 1: Liquid Portfolio Regression Statistics

R Square	0.68698							
Standard Error	1.01409							
Observations	72							
	Coeff	Se	t Stat	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
β_0	-1.82120	1.37461	-1.32488	0.18952	-4.56277	0.92038	-4.56277	0.92038
β_1	0.57635	0.12355	4.66483	0.00001	0.32993	0.82277	0.32993	0.82277

The study findings on the Illiquid portfolio companies revealed a β_0 of -4.20002 with t-statistic at 95% confidence interval of 3.86621 consequently the computed t is more than the critical $t_{0.025}$ at 71 degrees of freedom of 1.9945. The study therefore rejects the null hypothesis that liquidity management has no effect on

market performance of companies quoted at the NSE and concludes that liquidity management has an effect on market performance of companies quoted at the NSE. The regression results of the liquid portfolio are presented in Table 2 below:

Table 2: Illiquid Portfolio Regression Statistics

	Coeff	Se	t Stat	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
R-Square	0.61218							
Standard Error	0.33345							
Observations	72							
β_0	-4.20002	1.08634	-3.86621	0.00024	-6.36666	-2.0334	-6.36666	-2.0334
β_1	0.48717	0.09764	4.98932	0.00000	0.29243	0.6819	0.29243	0.6819

V. Conclusion and Recommendation

The study findings reject the null hypothesis that there is no significant difference in the market performance of low liquidity companies and high liquidity companies. From the study findings of the liquid portfolio excess return and the Illiquid portfolio excess return it was revealed that there is a significant difference between the market performance of Liquid portfolio companies and that of the illiquid portfolio companies since the Liquid portfolio companies are very risky while the illiquid portfolio companies are less risky as indicated by the coefficient of variation.

Whereas the study fails to reject the null hypothesis (H_0) for the liquid portfolio, it rejects the same for the illiquid portfolio. Accordingly liquidity management has an effect on the market return/ performance albeit for the illiquid companies. Because of the failure to influence market performance of liquid companies it can be observed that the significance of the effect of liquidity management on the market performance of companies listed at the NSE increases with the level of illiquidity.

Most of the studies on liquidity management, including this one have focused on using statistical tests to examine returns and results are used to make conclusions. Therefore, the results of this study should be interpreted diligently given that the analytical period is 72 months.

From the study finding the effects of liquidity management on market performance of liquid companies are affected by other factors that are not included in the model such as nature of the company, size of the company, trading patterns and seasonality. Therefore, there is need for further study in this area that will incorporate this factors.

The study also grouped the companies into two that is the liquid portfolio companies and the illiquid portfolio companies but it selected the first four liquid companies and the last four illiquid companies from each of the portfolios living out five companies that were in the middle. Therefore there is need for further study that will incorporate all the companies in each of the portfolios.

A study should be undertaken to compare the effects of liquidity management on companies listed at the NSE and those that are not listed at the NSE and also the effects of liquidity management policies on the market performance of companies listed at the NSE.

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