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LIQUIDITY RISK AND FINANCIAL PERFORMANCE OF INVESTMENT BANKS IN KENYA

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Abstract

This paper addresses the ascendancy of liquidity risks on performance of investment banks in Kenya. Philosophically, the study was guided by positivism. The study applied explanatory sequential mixed methods research design which allows for qualitative analysis to help explain or elaborate on quantitative results. The population of the study was all the 16 investment banks operating in Kenya and licenced by the Capital Markets Authority. Quantitative data was obtained from the annual financial statements of the 16 investment banks. The data was collected using data collection sheets for the years 2011 to 2019 to compute financial ratios. Primary data was analysed qualitatively using thematic analysis to validate the quantitative data results (using interview guide tool) from 16 finance and risk managers working in the investment banks in Kenya. Both descriptive and inferential analysis methods were employed in the analysis. The regression results reveal that liquidity risk by investment banks in Kenya has a low but negative and insignificant effect on financial performance of investment banks in Kenya (Coef. =-0.0058, p=0.325). From the empirical evidence and conclusion, this study recommends investment banks to have improved systems of managing clients' money, they should also diversify their financing sources and move from more conservative equity financing to debt financing. Moreover, investment banks should have a requirement for banks to hold enough liquid assets to survive for a period of time even without the inflow of outside funds.

Keywords: Liquidity Risk, Financial Risk, Financial Performance.

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Introduction

Investment banks are pertinent institutions of the economy because they provide crucial services that are essential to the movement of capital in the economy (Mahajan, 2016). They perform the role of intermediaries that help unite providers of capital with those who need to use it to exploit profitable investment opportunities. They also trade in equity and debt securities where they act as brokers, helping connect sellers to buyers of the financial assets. Furthermore, they provide fund management services for individuals, pension funds as well as institutional investors in addition to playing a key role in structuring and advising on mergers and acquisitions of companies. Additionally, investment banks act as transaction advisors to firms seeking to restructure their capital sources either by issuing more shares through initial public offerings, rights issues and private placements or absorbing different types of leverage including bonds, loans and commercial papers (Walter, Yawson & Yeung, 2008).

Financial performance in investment banks is the measure of how well a firm can use assets from its primary mode of business and generate revenues. Financial performance, measured using return on assets, assists the management in establishing if the investment bank is operating profitably (Baraza, 2018). Performing investment banks attract new shareholders and clients which culminates to rise in amount of revenue (Njoki, 2018). Financial performance measurement is therefore key to successful management of any business (Franco-Santos, Lucianetti & Bourne, 2012).

Operating in banking industry, investment banks must ensure liquidity that will

enhance effectiveness and efficiency in honouring financial obligations as they fall due to ensure smooth operations (Arif & Anees, 2012). Liquidity risk is the inability of banks to finance assets growth without incurring unreasonable costs and also to meet the demands for liquid assets at a given point in time. Liquidity gap is described as the difference between a bank's assets and a bank's liabilities. This gap can be on the positive side or negative side. A negative gap means that the bank is netting less income than the amount of liabilities assumed. When the gap is positive, the bank has liquid assets left over after all of the liabilities have been covered. Liquidity risk arises when the bank fails to liquidate assets, obtain necessary funding, unwind or offset large exposures without considerably causing movement in prices. Therefore, the survival and prosperity of banks is greatly determined by effective and efficient liquidity risk management mechanism adopted (Arif & Anees, 2012).

Techniques of liquidity risks management are constantly evolving to meet the increasing demands and inconsistencies in different sources of funding. Investment banks who fail to develop strategies to meet prevailing circumstances would be adversely affected by funding difficulties (Ariffin & Anees, 2012). Liquidity risk steps entails establishment of strategic direction, integrating liquidity risk with asset management, maintaining a liquidity risk measurement system, track and monitor current capacity and projected liquidity position as well as periodically evaluating both the bank's financial position and prevailing trends in the financial market for emerging patterns and development of contingency liquidity plans.

Problem Statement

It has been noted that over the recent years financial performance of investment banks has been varied with some posting high profits margin while others recording losses (Ruibi, 2012). The varied financial performance could be attributed to the different financial management practices of each investment banks among other factors (Ngeno, 2018). The financial performance of several investment banks in Kenya has been worrying. According to audited financial statements for 2018, Equity Investment Bank made a loss of Ksh 18.82 million (Equity Investment Bank Annual Report 2018, 2019). Similarly, the audited financial statements for 2018 of Kingdom Securities Ltd and ABC Capital recorded losses of Ksh 6.33 million and Ksh 37.68 million respectively. Co-operative Bank, which is Kenya's third largest lender by assets, in its annual report for 2018 indicated that its stockbrokerage subsidiary 'is not sustainable' and 'its prospects of turning around are minimal'. These examples illustrate the financial struggles some of the investment banks are facing. Poudel (2015) avers that investment banks operate in a highly volatile environment and face risk such as liquidity risks among other risks.

There is little research on investment banks in Kenya. Majority of studies focus on commercial banks (Haneef et al., 2012; Arrifin and Kassim, 2014); Maniagi, 2018; Mutwiri, 2019). Due to this limitation, there is growing challenge in identifying the impact of liquidity risks in investment banks financial performance. To fill the identified gap, this study seeks to establish whether liquidity risks of investment banks have any bearing on their financial performance.

Objectives

The general objective of this study is to establish the effect of liquidity risk on financial performance of investment banks in Kenya.

Literature Review

Theoretical Review

The liquidity preference theory was first propounded by Keynes (1936) which can explain the liquidity, interest rates and credit status of investment banks that is required when they are trading with each other or with their clients. In view of this theory, when dealing with securities with long-term maturities, investors often demand high interest rates. In other words, interest is the reward for parting with liquidity for the specified period (Tily, 2012). When all other factors are held constant, investors opt for cash or other highly liquid holdings. Liquidity, interest and credit work hand in hand. When there is low liquidity, then there is high interest rates being offered and hence higher probability of credit defaults.

As a compliment to Keynes's liquidity preference theory of interest, several other modern theories have been developed to explain the term structure of interest rates and the resulting yield curve: Expectation's theory suggests forward interest rates are representative of expected future interest rates. As a result, the shape of the yield curve and the term structure of rates are reflective of the market's aggregate expectations. Liquidity theory suggests that investors will choose longer term maturities if they are provided with additional yield that compensates them for lack of liquidity. As a result, liquidity theory supports that forward interest rates possess a liquidity premium and an interest rate expectation component. Preferred

habitat hypothesis suggests that investors who usually prefer one maturity horizon over another can be convinced to change maturity horizons given an appropriate premium. This suggests that the shape of the yield curve depends on the policies of market participants. Market segmentation theory suggests that different investors have different investment horizons that arise from the nature of their business or as a result of investment restrictions. These prevent them from dramatically changing maturity dates to take advantage of temporary opportunities in interest rates. Companies that have a long investment time horizon will therefore be less interested in taking advantage of opportunities at the short end of the curve (Horcher, 2011).

Empirical Review

Several studies have established the relationship between liquidity risks with financial performance in the context of commercial and microfinance banks but there is little focus on investment banks. Maaka (2013) noted that financial performance is negatively affected by liquidity gap. Lukorito, Nyang'au and Nyamasege (2014) says that poor liquidity risks are closely associated with banking crises and should be considered as one of the main causes of the global financial crisis which damaged economies of many countries. Abwao (2018) describes the positive relationship between liquidity risk management and performance of microfinance banks and recommended that microfinance banks should have a robust framework for projecting cash flows arising from assets, diversify funding sources, institute a formal contingency funding plan for addressing liquidity shortfalls and invest retained earnings in marketable. Further, Orangi, Atambo and

Mogwambo (2019), identified significant positive association between financial performance of commercial banks and the indicators of liquidity risk namely cash reserves, customer deposits, non-performing loans and asset base.

Methodology

The study utilized a descriptive research design premised on a positivist ontological research philosophy and employed a mixed method design which allows for both quantitative and qualitative approach. The population of the study was all the 16 investment banks operating in Kenya and licenced by the Capital Markets Authority. Quantitative data was obtained from the annual financial statements of the 16 investment banks for the years 2011 to 2019 to compute financial ratios. Primary data was utilized to validate the findings of the secondary data analysis (using interview guide tool) from 47 interviewees composed of managers of the investment banks and staff working at the NSE and CMA who are experts in financial analysis of the regulated entities. Descriptive statistics were employed to summarize the data, as well as show trends, assess normality and spread the predictors. Qualitative data was analysed using stepwise linear logistic regression. Inferential statistics namely correlation analysis and panel data regression methods were used to generate inferences regarding the relationship between variables. Diagnostic tests were conducted for normality, stationarity, multicollinearity and heteroscedasticity using Shapiro-Wilk, Harris-Tzavalis, variance inflation factor and Breusch-Pagan tests respectively. The findings were presented in figures and tabular format. The researcher observed ethical considerations such as respondents' consent and confidentiality.

Results and discussion

Correlation Analysis

Correlation analysis was conducted to establish the linear association between liquidity risk proxies and financial

performance (ROA) of investment banks. Table 1 shows the summary of correlation analysis.

Table 1: Correlation Results

ROA Vs	Coefficient [®]	P.value
Cash Ratio	-0.0636	0.4739
Current Ratio	0.0977	0.2705

Table 1 shows that cash ratio has a weak negative and insignificant relationship ($r = -0.0636$, $p = 0.4739$) with return on assets. The result suggests that increase in cash ratio correlates with decrease in ROA however, that association is not significant. Additionally, current ratio has a weak positive and insignificant correlation with ROA ($r = 0.0977$, $p = 0.2705$).

Regression analysis was conducted using random effects model to establish the relationship between the liquidity risk proxy and financial performance (ROA) of investment banks in Kenya. Table 2 shows the summary of the results, and Model 1 below guided the analysis.

Regression Analysis

$$Y_t = \beta_0 + \beta_1 X_{1it} + \varepsilon \quad (\text{Model 1})$$

Table 2: Random Effects Model Regression Results (Liquidity risk vs Financial Performance).

Number of obs =	129	Wald chi2(1)	0.97		
Number of groups =	16	Prob > chi2	0.325		
Obs Per Group: min =	5	R-sq between	0.0057		
avg =	8.1	R-sq overall	0.0040		
max =	9				
ROA	Coef.	Robust Std. Err.	z	P> z 	[95% Conf. Interval]
Cash ratio	-0.0058	0.006	-0.98	0.325	-0.0173 0.0057
_cons	0.268	0.035	7.65	0.000	0.199 0.336
Number of obs =	129	Wald chi2(1)	0.41		
Number of groups =	16	Prob > chi2	0.524		
Obs Per Group: min =	5	R-sq between	0.0084		

avg = 8.1		R-sq overall		0.0096	
max = 9					
ROA	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Current ratio	0.002	0.003	0.64	0.524	-0.004 0.008
_cons	0.245	0.033	7.38	0.000	0.1805 0.311

Table 2 shows the summary of the results of two bivariate models namely ROA against cash ratio (Model 1a) and ROA against current ratio (Model 1b). Cash ratio and current ratio were used as the proxy measures for liquidity risk. In bivariate model 1a (ROA against cash ratio), the overall random effects regression model is insignificant as revealed by Wald chi-squared value of 0.97 and its respective p.value of 0.325. This implies that cash ratio is an insignificant predictor of ROA. In addition, an overall R squared of 0.0057, suggests that cash ratio explains only 0.57% variation in ROA.

The result reveals that cash ratio by investment banks in Kenya has a low but negative and insignificant influence on financial performance (ROA) of investment banks in Kenya (Coef. = -0.0058, p=0.325). In addition, the z statistics (cash ratio = -0.98) which is a measure of precision or reliability with which the regression coefficient is measured indicates that the regression coefficient for cash ratio is unreliable. A z statistic greater than 2 indicates that the regression coefficient is reliable. Therefore, the result implies that a unit increase in cash ratio leads to a decrease in ROA by 0.0058 however, the association is insignificant hence a unit increase in current ratio would not cause significant change on investment banks' ROA.

The optimal regression model is expressed as follows:

$$Y_t = 0.268 - 0.0058 \text{ Cash ratio} + \varepsilon \quad (1a)$$

In the bivariate model 1b (ROA against current ratio) displayed in Table 2 above, the overall random effects regression model is insignificant as revealed by Wald chi-squared value of 0.41 and its respective p.value of 0.524. This implies that current ratio is insignificant predictors of ROA. In addition, an overall R squared of 0.84, suggests that current ratio explains 0.84% variation in ROA.

The result reveals that current ratio by investment banks in Kenya has a low but positive and insignificant influence on financial performance (ROA) of investment banks in Kenya (Coef. = 0.002, p=0.524). In addition, the z statistics of 0.64, which is a measure of precision or reliability with which the regression coefficient is measured indicates that the regression coefficient for current ratio is not reliable. A z statistic greater than 2 indicates that the regression coefficient is reliable and different from zero. Therefore, the result implies that a unit increase in current ratio leads to an increase in ROA by 0.002 however, the association is insignificant.

The optimal regression model is expressed as follows:

$$Y_t = 0.246 - 0.002 \text{ Current ratio} + \varepsilon \quad (1 b)$$

According to Gujarati, Porter and Gunasekar (2012), variables which their regression coefficients are significant are ***Autocorrelation Test and Hypothesis Test***

included in the optimal regression model, which can be used for policy development or management practice, while variables which their regression coefficients are not significant are unreliable because it cannot be proved that the relationship is not just random. Since optimal regression models 4.6a and 4.6b have insignificant coefficients, they cannot be used to make policy decisions or management practice.

Table 3: Woodridge Test and Hypothesis Test

Risk	Autocorrelation Test (Woodridge test)	Hypothesis Test
Cash Ratio & Current Ratio	There is no presence of autocorrelation (F (1, 15) = 1.419, p= 0.2520) in Cash Ratio and in current ratio F (1, 15) = 1.437, p= 0.2493). The null is no serial correlation. Since the p-value is greater than the standard threshold of 0.05, the study fails to reject the null and conclude the data does not have first-order autocorrelation.	The null hypothesis of the study stated that liquidity risk has no significant effect on financial performance of investment banks in Kenya. Given that both the cash ratio and current ratio have insignificant effect on ROA (p=0.325, p= 0.524 respectively), this study fails to reject the null hypothesis and concludes that liquidity risk has insignificant effect on financial performance of investment banks in Kenya.

Qualitative Analysis on Liquidity Risk and Financial Performance

A high cash and current ratio indicate that investment banks have enough cash and assets to pay off their current liabilities hence low liquidity risks. Cash and current ratios of investment banks from 2011 to 2019 have been increasing over the years. The study set out to investigate the reasons behind this upward trend. Do investment banks prefer high cash and current ratios? The responses from the interview session with investment bank experts were analysed thematically. The identified themes included retained cash earnings, high cashflow business, and cash held in near cash securities improves liquidity, while three-month buffer is used as strategy to reduce liquidity risk exposure.

According to the interviewees, most investment banks are liquid because they hold clients' money temporarily because it's meant for purchase of shares and bonds. In addition, they are involved in a high cashflow business, so the circulation of money is high. The investment bank business is not capital intensive. Hence, most of all the cash earnings are retained, invested and used to finance the operations. Besides, the business profile of investment banks, unlike other businesses is based on commissions and clients deposit the money for stock purchases plus the commission in advance. Therefore, the investment bank is able to generate a lot of cash and don't have huge account receivables. Furthermore, the respondents reported that investment banks are highly liquid simply because they hold money belonging to clients who fail to make

purchase instructions. Other respondents noted that high liquidity is due to the liquid capital regulatory requirement ratios that rewards investment banks who hold cash or near cash assets for example treasury bills.

Regarding the strategies of ensuring high liquidity some of the common practices include having a three-month buffer, which is similar to normal budgeting and planning for three months in advance. In other words, a requirement for banks to hold enough liquid assets to survive for a period of time even without the inflow of outside funds.

Furthermore, the respondents were asked why the relationship between liquidity risk has insignificant relationship with the financial performance. The responses indicated that liquidity management of the investment banks is mostly based on holding clients' money or buying cash or near cash investments. The banks can't invest in clients' money because they have to keep it in case the client demands their money back. In cases where they deposit the money to bank account, the deposits do not generate good returns hence the contribution to profit creation is minimal.

Conclusion

The study findings and discussion reveal that liquidity risk has a negative and insignificant effect on the financial performance of investment banks in Kenya. This is attributed to the fact that investment bank's liquidity comes from clients' money which cannot be used in other high earning investments such as lending hence it attracts little returns. As such, high liquidity has no beneficial effects to the investment banks bottom line. In addition, liquidity in form of cash in the bank do not generate good returns

hence the contribution to profit is infinitesimal. Thus, this study contributes that the liquidity risk of investment banks in Kenya has a negative and significant effect on their financial performance.

Recommendations

Even though liquidity risk has a low but negative and insignificant influence on financial performance of investment banks in Kenya, it is still recommended that the Capital Markets Authority should ensure investment banks have policies to manage and reduce exposure to liquidity risks. This study recommends investment banks to have improved systems of managing clients' money by sending reminders to clients to make purchase orders or returning the money after a period of time if the client fails to make purchase orders. In addition, they should also diversify their financing sources and move from more conservative equity financing to debt financing. Moreover, investment banks should have a requirement for banks to hold enough liquid assets to survive for a period of time even without the inflow of outside funds.

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